BEFORE THE ENVIRONMENTAL APPEALS BOARD
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC

In re Avenal Power Center, LLC	)	PSD Appeal No. ____
PSD Permit No. SJ 08-01	)	

EXHIBITS TO SIERRA CLUB'S PETITION FOR REVIEW

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LIST OF EXHIBITS

1. Prevention of Significant Deterioration Permit Number SJ 08-01, Amended (June 21, 2011)

2. Sierra Club Comments on Proposed Prevention of Significant Deterioration Permit for the Avenal Energy Project (Oct. 15, 2009)

3. Sierra Club Comments on Short-term NO_2 NAAQS and the Proposed Prevention of Significant Deterioration Permit for the Avenal Energy Project (Apr. 21, 2010)

4. Sierra Club Comments on Supplemental Statement of Basis: PSD Permit Application for Avenal Energy Project (Apr. 12, 2011)

5. EPA, Responses to Public Comments on the Proposed Prevention of Significant Deterioration Permit for the Avenal Energy Project (May 2011)

6. APC, Memo. in Support of APC's Motion for Judgment on the Pleadings Pursuant to Rule 12(c) and Request for Expedited Decision, Case No. 1:10-cv-00383 (RJL) (filed Aug. 25, 2010)

7. EPA, Declaration of Deborah Jordan, Case No. 1:10-cv-00383 (RJL) (filed Sept. 17, 2010)

8. EPA, Memo. in Opp. to Pls.' Motion for Judgment on the Pleadings and in Support of Defs.' Cross-Mot. For Summ. J., Case No. 1:10-cv-00383 (RJL) (filed Sept. 17, 2010)

9. EPA, Declaration of Regina McCarthy, Case No. 1:10-cv-00383 (RJL) (filed Jan. 31, 2011)

10. Memorandum from Lisa P. Jackson to Gina McCarthy (March 1, 2011)

11. EPA, Supplemental Statement of Basis, PSD Permit Application for Avenal Energy Project (March 4, 2011)

12. Memorandum Opinion, Case No. 1:10-cv-00383 (RJL) (filed May 26, 2011)

13. EPA, Def's Resp. to Pl.'s Supp. Br. Regarding Remedy, Case No. 1:10-cv-00383 (RJL) (filed Mar. 1, 2011)

14. EPA Comments on Project Number C-1100751 for Avenal Power Center LLC (08-AFC-01) (Sept. 13, 2010)

15. "EPA Plan to 'Grandfather' Key Air Permit Raises Major Legal, Policy Queries," Inside EPA (Mar. 4, 2011)

16. Memo from Stephen D. Page, Director, OAQPS, EPA, to EPA Regional Air Division Directors (Apr. 1, 2010)

EXHIBIT 1

AMENDED
PREVENTION OF SIGNIFICANT DETERIORATION PERMIT ISSUED PURSUANT TO THE REQUIREMENTS AT 40 CFR § 52.21

U.S. ENVIRONMENTAL PROTECTION AGENCY~~, REGION IX~~

PSD PERMIT NUMBER: SJ 08-01

PERMITTEE: Avenal Power Center, LLC
500 Dallas Street, Level 31
Houston, TX 77002

FACILITY NAME: Avenal Energy Project

FACILITY LOCATION: 33119 Avenal Cutoff Road
Avenal, California 93204

Pursuant to the provisions of the Clean Air Act (CAA), Subchapter I, Part C (42 U.S.C. Section 7470, *et. seq.*), and the Code of Federal Regulations (CFR) Title 40, Section 52.21, the United States Environmental Protection Agency ~~Region 9~~ (EPA) is issuing an amended *Prevention of Significant Deterioration* (PSD) permit to the Avenal Power Center, LLC (APC). The Permit applies to the construction and operation of a new 600 megawatt (MW, nominal) natural gas-fired combined-cycle power plant known as the Avenal Energy Project (AEP) in Avenal, California. This Amended PSD Permit revises the PSD permit issued to APC on May 27, 2011, with the revisions applicable immediately.

APC is authorized to construct and operate the AEP power plant as described herein, in accordance with the permit application (and plans submitted with the permit application), the federal PSD regulations at 40 CFR § 52.21, and other terms and conditions set forth in this PSD Permit. Failure to comply with any condition or term set forth in this PSD Permit may result in enforcement action pursuant to Section 113 of the Clean Air Act. This PSD Permit does not relieve APC from the responsibility to comply with any other applicable provisions of the Clean Air Act (including applicable implementing regulations in 40 CFR Parts 51, 52, 60, 61, 63, and 72 through 75), or other federal, state, and San Joaquin Valley Air Pollution Control District (District) requirements.

Per 40 CFR § 124.15(b), this PSD Permit becomes effective 30 days after the service of notice of the~~is~~ final permit decision on May 27, 2011 unless review is requested on the permit pursuant to 40 CFR § 124.19.

Gina McCarthy
Assistant Administrator

Date

AVENAL ENERGY PROJECT (SJ 08-01)
PREVENTION OF SIGNIFICANT DETERIORATION PERMIT
AMENDED FINAL PERMIT CONDITIONS

PROJECT DESCRIPTION

The Facility is a combined-cycle power plant capable of generating up to 600 megawatts (MW, nominal) of net power. Electrical power will be generated from the combustion of natural gas in two 180 MW (nominal) combustion turbine generators (CTG). Exhaust from each gas turbine will flow through a dedicated Heat Recovery Steam Generator (HRSG) to produce steam to power a shared 300 MW (nominal) Steam Turbine Generator (STG). Each HRSG will be equipped with natural gas-fired duct burners to augment steam production during peaking operation. Each of the CTGs will be equipped with dry low-NOx (DLN) combustors. The Facility will install selective catalytic reduction (SCR) and oxidation catalyst (Ox-Cat) systems. Additional equipment includes a natural gas-fired auxiliary boiler, which is used to provide steam for auxiliary purposes such as when the plant is off-line or during startup, equipped with an ultra low-NOx burner, a natural gas-fired emergency generator equipped with a post-combustion integrated SCR/oxidation catalyst system, and a diesel-fired emergency firewater pump engine with a turbocharger and an intercooler/aftercooler.

The Facility is subject to the Prevention of Significant Deterioration (PSD) Program for emissions of Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Particulate Matter (PM), and Particulate Matter of less than or equal to 10 micrometers (μm) in diameter (PM_{10}).

EQUIPMENT LIST

The following devices are subject to this PSD permit:

Unit ID	Description
GEN1	• 180 MW Combustion Turbine Generator (CTG), with a maximum heat input rate of 1,856.3 MMBtu/hr, high heating value (HHV) • Natural gas-fired General Electric Model Frame 7FA • Vented to a dedicated Heat Recovery Steam Generator (HRSG) and a 300 MW Steam Turbine Generator (STG) shared with GEN2 • Emissions of NO_x and CO controlled by Dry Low-NO_x (DLN) Combustors, Selective Catalytic Reduction (SCR), and an Oxidation Catalyst (Ox-Cat)
GEN2	• 180 MW CTG, with a maximum heat input rate of 1,856.3 MMBtu/hr (HHV) • Natural gas-fired General Electric Model Frame 7FA • Vented to a dedicated HRSG and a 300 MW STG shared with GEN1 • Emissions of NO_x and CO controlled by DLN combustors, SCR and an Ox-Cat

Unit ID	Description
DB1	• 562.26 MMBtu/hr (HHV) Duct Burner for GEN1, fired on natural gas
DB2	• 562.26 MMBtu/hr (HHV) Duct Burner for GEN2, fired on natural gas
D1	• 37.4 MMBtu/hr (HHV) Auxiliary Boiler with ultra low-NO_x burner, fired on natural gas
D2	• 550 kW (860 hp) Emergency Internal Combustion (IC) Engine, fired on natural gas • Emissions of NO_x and CO controlled by post-combustion integrated SCR/oxidation catalyst system
D3	• 288 hp Emergency Diesel-fired IC Engine Firewater Pump Engine • Equipped with a turbocharger and an intercooler/aftercooler

PERMIT CONDITIONS

I. PERMIT EXPIRATION

As provided in 40 CFR § 52.21(r), this PSD Permit shall become invalid if construction:

A. is not commenced (as defined in 40 CFR § 52.21(b)(9)) within 18 months after the approval takes effect; or

B. is discontinued for a period of 18 months or more; or

C. is not completed within a reasonable time.

II. PERMIT NOTIFICATION REQUIREMENTS

Permittee shall notify EPA Region IX by letter or by electronic mail of the:

A. date construction is commenced, postmarked within 30 days of such date;

B. actual date of initial startup, as defined in 40 CFR § 60.2, postmarked within 15 days of such date;

C. date upon which initial performance tests will commence, in accordance with the provisions of Condition X.G, postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the performance test protocol required pursuant to Condition X.G; and

D. date upon which initial performance evaluation of the continuous emissions monitoring system (CEMS) will commence in accordance with 40 CFR §

60.13(c), postmarked not less than 30 days prior to such date. Notification may be provided with the submittal of the CEMS performance test protocol required pursuant to Condition X.F.

III. FACILITY OPERATION

At all times, including periods of startup, shutdown, shakedown, and malfunction, Permittee shall, to the extent practicable, maintain and operate the Facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the EPA, which may include, but is not limited to, monitoring results, opacity observations, review of operating maintenance procedures and inspection of the Facility.

IV. MALFUNCTION REPORTING

A. Permittee shall notify EPA at R9.AEO@epa.gov within two (2) working days following the discovery of any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner, which results in an increase in emissions above the allowable emission limits stated in Section X of this permit.

B. In addition, Permittee shall provide an additional notification to EPA in writing or electronic mail within fifteen (15) days of any such failure described under Condition IV.A. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial malfunction, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed in Section X, and the methods utilized to mitigate emissions and restore normal operations.

C. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violation of this permit or any law or regulation such malfunction may cause.

V. RIGHT OF ENTRY

The EPA Regional Administrator, and/or an authorized representative, upon the presentation of credentials, shall be permitted:

A. to enter the premises where the Facility is located or where any records are

required to be kept under the terms and conditions of this PSD Permit;

B. during normal business hours, to have access to and to copy any records required to be kept under the terms and conditions of this PSD Permit;

C. to inspect any equipment, operation, or method subject to requirements in this PSD Permit; and

D. to sample materials and emissions from the source(s).

VI. TRANSFER OF OWNERSHIP

In the event of any changes in control or ownership of the Facility to be constructed, this PSD Permit shall be binding on all subsequent owners and operators. Permittee shall notify the succeeding owner and operator of the existence of this PSD Permit and its conditions by letter, a copy of that shall be forwarded to EPA Region IX within thirty (30) days.

VII. SEVERABILITY

The provisions of this PSD Permit are severable, and, if any provision of the PSD Permit is held invalid, the remainder of this PSD Permit shall not be affected.

VIII. ADHERENCE TO APPLICATION AND COMPLIANCE WITH OTHER ENVIRONMENTAL LAWS

Permittee shall construct this project in compliance with this PSD permit, the application on which this permit is based and all other applicable federal, state, and local air quality regulations. This PSD permit does not release the Permittee from any liability for compliance with other applicable federal, state and local environmental laws and regulations, including the Clean Air Act.

IX. RESERVED

X. SPECIAL CONDITIONS

A. Annual Facility Emission Limits

1. Annual emissions, in tons per year (tpy) on a 12-month rolling average basis, shall not exceed the following:

	NO_x	CO	PM	PM_{10}
Total Facility	**144.3 tpy**	**602.7 tpy**	**80.7 tpy**	**80.7 tpy**

2. Only Public Utilities Commission (PUC)-quality pipeline natural gas shall be fired at this Facility. PUC-quality pipeline natural gas shall not exceed a sulfur content of 0.36 grains per 100 dry standard cubic feet on a 12-month rolling average basis and shall not exceed a sulfur content of 1.0 grains per 100 dry standard cubic feet, at any time.

B. Air Pollution Control Equipment and Operation

As soon as practicable following initial startup of the power plant (startup as defined in 40 CFR § 60.2) but prior to commencement of commercial operation (as defined in 40 CFR § 72.2), and thereafter, except as noted below in Condition X.D, the Permittee shall install, continuously operate, and maintain: (1) the SCR systems for control of NO_x and the Ox-Cat systems for control of CO for Units GEN1 and GEN2, and (2) the post-combustion integrated SCR/oxidation catalyst system for control of NO_x and CO for D2. Permittee shall also perform any necessary operations to minimize emissions so that emissions are at or below the emission limits specified in this permit.

C. Combustion Turbine Generator (CTG) Emission Limits

1. Except as noted below under Condition X.D, on and after the date of initial startup, Permittee shall not discharge or cause the discharge of emissions from each CTG Unit (of GEN1 and GEN2) into the atmosphere in excess of the following:

	Emission Limit (per CTG) (no duct burning)	Emission Limit (per CTG) (with duct burning)
NO_x	• 13.55 lb/hr • 1-hr average • 2.0 ppmvd @ 15% O_2	• 17.20 lb/hr • 1-hr average • 2.0 ppmvd @ 15% O_2
CO	3-Year Demonstration Period • 8.35 lb/hr • 1-hr average • 2.0 ppmvd @ 15% O_2 Post-Demonstration Period • 6.27 lb/hr • 1-hr average • 1.5 ppmvd @ 15% O_2 Conditions in X.C.3 may affect the timing and applicability of post-demonstration period emission limits.	• 10.60 lb/hr • 1-hr average • 2.0 ppmvd @ 15% O_2
PM / PM10	• 8.91 lb/hr • 12-month rolling average • PUC-quality pipeline natural gas	• 11.78 lb/hr • 12-month rolling average • PUC-quality pipeline natural gas

2. Annual heat input to each duct burner (DB1 and DB2) shall not exceed 449,800 MMBtu per 12-month rolling period. The Permittee shall ensure that the duct burners are not operated unless the associated turbine units are in operation.

3. CO Emissions Limit Demonstration Period – The Demonstration Period is defined as the first 3 years immediately following the commencement of commercial operations.

    a. The Permittee shall design the gas turbines to achieve a CO emission rate of 1.5 ppmvd @ 15% O_2 and 6.27 lb/hr over a 1-hour period without duct firing. Prior to construction, the Permittee shall submit design specifications to EPA as proof that the gas turbines were designed to achieve such a rate. The Permittee shall also submit a plan to EPA that sets

forth the measures that will be taken to maintain the system and optimize its performance.

b. During the Demonstration Period, the Permittee shall operate the gas turbines according to the design specifications, within the design parameters, and consistent with the maintenance and performance optimization plan described above in Condition X.C.3.a. During the Demonstration Period the Permittee shall not discharge or cause the discharge of CO emissions from each CTG Unit (GEN1 and GEN2) into the atmosphere in excess of the following amounts over a 1-hour averaging period: 2.0 ppmvd CO @ 15% O_2 and (1) 10.60 lb/hr with duct firing or (2) 8.35 lb/hr ~~with or~~ without duct firing ~~over a 1-hour averaging period~~.

c. Following the Demonstration Period, the Permittee shall not discharge or cause the discharge of CO emissions from each CTG Unit (GEN1 and GEN2) into the atmosphere in excess of the following amounts over a 1-hour averaging period except as specified in Condition X.C.3.d:

   i. 1.5 ppmvd @ 15% O_2 without duct firing;

   ii. 2.0 ppmvd @ 15% O_2 with duct firing;

   iii. 6.27 lb/hr without duct firing; and

   iv. 10.60 ~~8.35~~ lb/hr with duct firing.

d. If, during the Demonstration Period, the Permittee determines that the CO limits in Conditions X.C.3.i or X.C.3.iii are not feasible, the Permittee shall submit an application to EPA prior to the end of the Demonstration Period requesting a revision of those limits. Such an application must contain data and information that demonstrates that the Facility was operated according to the design specifications and parameters, and the maintenance and performance optimization plan, identified above in Condition X.C.3.a, as well as a technical justification explaining why the lower limits are not feasible. If, after the applicable review process following such a submission (which will include an opportunity for public review and comment), it is determined through data and information gathered during the Demonstration Period that different CO limits are necessary, the limits in Condition X.C.3.i and X.C.3.iii will be revised accordingly. Provided that the application specified in this condition is postmarked prior to the end of the Demonstration Period, the emission limits in Condition X.C.3.b shall remain in effect until EPA evaluates the application and makes a final decision regarding the revision of the limits

in Conditions X.C.3.i or X.C.3.iii.

D. Requirements during Gas Turbine (GEN1 and GEN2) Startup and Shutdown

1. Startup is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations and demonstrate compliance with Conditions X.C.

2. Shutdown is defined as the period beginning with the lowering of equipment from normal operating load to minimum operating load and lasting until fuel flow is completely off and combustion has ceased.

3. During startup and shutdown periods emissions from each CTG and associated HRSG unit, verified by the CEMS, shall not exceed the following:

	NO_x	**CO**
Each CTG and HRSG Startup / Shutdown	160 lb/hr	1,000 lb/hr
Both CTG and HRSG Combined Startup / Shutdown	240 lb/hr	1,902 lb/hr

	Event Duration	**Annual Limit for Both CTG Combined**
Each CTG and HRSG Startup	4.50 hours	1,248 hours/yr
Each CTG and HSRG Shutdown	0.50 hour	

4. The Permittee must operate the CEMS during startups and shutdowns.

5. The Permittee must record the time, date, and duration of each startup and shutdown event. The records must include calculations of NO_x and CO emissions during each event based on the CEMS data. These records must be kept for five years following the date of such event.

6. During startup, the CTG and HRSG emissions shall comply with Condition X.D.3, and the SCR system, including ammonia injection, shall be operated in a manner to minimize emissions, as technologically feasible, and not later than when the load reaches 60% of plant net output.

E. Auxiliary Combustion Equipment Emission Limits

1. At all times, including equipment startup and shutdown, Permittee shall not discharge, or cause the discharge of emissions from each unit into the atmosphere, in excess of the following**:**

Unit ID	NO_x	CO	PM and PM_{10}	Restrictions on Usage
Unit D1 37.4 MMBtu/hr (HHV) Boiler	• 9 ppmvd @ 3% O_2 • 3-hr average	• 50 ppmvd @ 3% O_2 • 3-hr average	• 0.0034 gr/dscf • PUC-quality pipeline natural gas	• 46,675 MMBtu/yr
Unit D2 550 kW (860 hp) engine	• 1.0 g/hp-hr	• 0.21 g/hp-hr	• PUC-quality pipeline natural gas • 0.34 g/hp-hr	• 50 hrs/yr
Unit D3 288 hp firewater pump	• 3.4 g/hp-hr	• 0.447 g/hp-hr	• Use of ultra-low sulfur fuel, not to exceed 15 ppmvd fuel sulfur	• 50 hrs/yr

2. Unit D1 shall not operate during normal operations of GEN1 or GEN2, except during periods of, or immediately following, startup. Unit D1 shall be shut down as soon as practicable after the completion of any startup process as defined in Condition X.D.1.

3. Unit D2 restrictions on usage shall be limited to operation of the engine for all maintenance and testing.

4. Unit D3 restrictions on usage shall be limited to the total hours of operations for all maintenance and testing.

5. Units D2 or D3 shall not operate during startup of GEN1 or GEN2, except when Units D2 or D3 are required for emergency operations.

F. Continuous Emissions Monitoring System (CEMS) for GEN1 and GEN2

1. At the earliest feasible opportunity after first fire of GEN1 and GEN2 and before GEN1 and GEN2 commence commercial operation (as defined in 40 CFR § 72.2), in accordance with the recommendations of the equipment manufacturer and the construction contractor, Permittee shall install, calibrate, and operate a CEMS each for GEN1 and GEN2 that measures stack gas NOx, CO, and O_2 or CO_2 concentrations in ppmv. The concentrations shall be corrected to 15% O_2 on a dry basis. No later than the end of the shakedown period as defined in Condition X.J. or upon commencing commercial operations, whichever comes first, Permittee shall also maintain, certify, and quality-assure a CEMS for each CTG that measures stack gas NO_x, CO, and O_2 concentrations in ppmv, and shall ~~is required to~~ conduct initial certification of the CEMS in accordance with Condition X.F.6. The concentrations shall be corrected to 15% O_2 on a dry basis.

2. The NO_x and O_2 CEMS shall meet the applicable requirements of 40 CFR Part 75.

3. The CO CEMS shall meet the applicable requirements of 40 CFR Part 60 Appendix B, Performance Specification 4, and 40 CFR Part 60 Appendix F, Procedure 1, except the relative accuracy specified in section 13.2 of 40 CFR Part 60 Appendix B, Performance Specification 4 shall not exceed 20 percent.

4. Each CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute clock-hour period.

5. The CEMS shall be tested in accordance with Conditions X.F.2 and X.F.3.

6. The initial certification of the CEMS may either be conducted separately, as specified in 40 CFR § 60.334(b)(1) or as part of the initial performance test of each emission unit. CEMS must undergo and pass initial performance specification testing on or before the date of the initial performance test.

7. CEMS shall meet the requirements of 40 CFR § 60.13. Data sampling, analyzing, and recording shall also be adequate to demonstrate compliance with emission limits during startup and shutdown.

8. Not less than 90 days prior to the date of initial startup of the Facility, the Permittee shall submit to the EPA a quality assurance project plan for the certification and operation of the continuous emission monitors. Such a plan

shall conform to EPA requirements contained in 40 CFR Part 60 Appendix F for CO, 40 CFR Part 75 for NO_x and O_2 or CO_2, and 40 CFR Part 75 Appendix B for stack flow. The plan shall be updated and resubmitted upon request by EPA. The protocol shall specify how emissions during startups and shutdowns will be determined and calculated, including quantifying flow accurately if calculations are used.

9. The gas turbine CEMS shall be audited quarterly and tested annually in accordance with 40 CFR Part 60 Appendix F, Procedure 1. Permittee shall perform a full stack traverse during initial run of annual RATA testing of the CEMS, with testing points selected according to 40 CFR Part 60 Appendix A, Method 1.

10. Permittee shall submit a CEMS performance test protocol to the EPA no later than 30 days prior to the test date to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol and any changes required by EPA.

11. Permittee shall furnish the EPA a written report of the results of performance tests within 60 days of completion.

12. The stack gas volumetric flow rates shall be calculated in accordance with the fuel flowmeter requirements of 40 CFR Part 75 Appendix D in combination with the appropriate parts of EPA Method 19.

13. Prior to the date of initial startup of GEN1 and GEN2, Permittee shall install, and thereafter maintain and operate, continuous monitoring and recording systems to measure and record the following operational parameters:

    a. The ammonia injection rate of the ammonia injection system of the SCR system.

    b. The plant output as noted in Condition X.D.6.

G. Performance Tests

1. Stack Tests

   a. Within 60 days after achieving normal operation, but not later than 180 days after the initial start-up of equipment, and, unless otherwise specified, annually thereafter (within 30 days of the initial performance test

anniversary), Permittee shall conduct performance tests (as described in 40 CFR § 60.8) as follows:

i. NO_x, CO, PM, and PM_{10} emissions from each gas turbine (Units GEN1/DB1 and GEN2/DB2),

ii. NO_x~~,~~ and CO emissions from the 37.4 MMBtu/hr boiler (D1); PM and PM_{10} emissions from the 37.4 MMBtu/hr boiler (D1) shall be tested initially and at least every five years (within 30 days of the initial performance test anniversary)

iii. NO_x, CO, PM, and PM_{10} emissions from the 550 kW (860 hp) internal combustion engine (D2), only upon notification by EPA

iv. NO_x, CO, PM, and PM_{10} emissions from the 288 hp firewater pump (D3), only upon notification by EPA

b. Permittee shall submit a performance test protocol to EPA no later than 30 days prior to the test to allow review of the test plan and to arrange for an observer to be present at the test. The performance test shall be conducted in accordance with the submitted protocol, and any changes required by EPA.

c. Performance tests shall be conducted in accordance with the test methods set forth in 40 CFR § 60.8 and 40 CFR Part 60 Appendix A, as modified below. In lieu of the specified test methods, equivalent methods may be used with prior written approval from EPA:

i. EPA Methods 1-4 and 7E for NO_x emissions measured in ppmvd

ii. EPA Methods 1-4, 7E, and 19 for NO_x emissions measured on a heat input basis

iii. EPA Methods 1-4 and 10 for CO emissions

iv. EPA Methods 5 and 202, or Methods 201A and 202, for both PM and PM_{10}, in accordance with the test methods set forth in 40 CFR § 60.8, 40 CFR Part 60 Appendix A, and 40 CFR Part 51 Appendix M. In lieu of Method 202, the Permittee may use EPA Conditional Test Methods for particulate matter~~:~~ CTM-039.

v. the provisions of 40 CFR § 60.8 (f).

d. The initial performance test conducted after initial startup shall use the test procedures for a "high NO_2 emission site," as specified in San Diego Test Method 100, to measure NO_x emissions. The source shall be classified as either a "low" or "high" NO_2 emission site based on these test results. If the emission source is classified as a:

i. "high NO_2 emission site," then each subsequent performance test shall

use the test procedures for a "high NO_2 emission site," as specified in San Diego Test Method 100.

ii. "low NO_2 emission site," then the test procedures for a "high NO_2 emission site," as specified in San Diego Test Method 100, shall be performed once every five years to verify the source's classification as a "low NO_2 emission site."

e. The performance test methods for NO_x emissions specified in Condition X.G.1.c.i and ii., may be modified as follows:

i. Perform a minimum of 9 reference method runs, with a minimum time per run of 21 minutes, at a single load level, between 90 and 100 percent of peak (or the highest physically achievable) load.

ii. Use the test data both to demonstrate compliance with the applicable NO_x emission limit and to provide the required reference method data for the RATA of the CEMS.

f. Upon written request and adequate justification from the Permittee, EPA may waive a specific annual test and/or allow for testing to be done at less than maximum operating capacity.

g. For performance test purposes, sampling ports, platforms, and access shall be provided on the emission unit exhaust system in accordance with the requirements of 40 CFR § 60.8(e).

h. Permittee shall furnish the EPA a written report of the results of performance tests within 60 days of completion.

2. Fuel Testing

a. Permittee shall take monthly samples of the natural gas combusted. The samples shall be analyzed for sulfur content using an ASTM method. The sulfur content test results shall be retained on site and taken to ensure compliance with Special Conditions X.C and X.E for Units GEN1/DB1, GEN2/DB2, D1, and D2.

H. Monitoring for Auxiliary Combustion Equipment

1. Permittee shall install and maintain an operational non-resettable totalizing mass or volumetric flow meter in each fuel line for the 37.4 MMBtu /hr boiler (Unit D1).

2. Permittee shall install and maintain an operational non-resettable elapsed time meter for the 550 kW emergency use engine (Unit D2) and the 288 hp

emergency-use firewater pump (Unit D3).

I. Recordkeeping and Reporting

1. Permittee shall maintain a file of all records, data, measurements, reports, and documents related to the operation of the Facility, including, but not limited to, the following: all records or reports pertaining to adjustments and/or maintenance performed on any system or device at the Facility; all records relating to performance tests and monitoring of auxiliary combustion equipment; for each diesel fuel oil delivery, documents from the fuel supplier certifying compliance with the fuel sulfur content limit of Special Condition X.E for Unit D3; and all other information required by this permit recorded in a permanent form suitable for inspection. The file must be retained for not less than five years following the date of such measurements, maintenance, reports, and/or records.

2. Permittee shall maintain CEMS records that include the following: the occurrence and duration of any startup, shutdown, shakedown, or malfunction, performance testing, evaluations, calibrations, checks, adjustments, maintenance, duration of any periods during which a continuous monitoring system or monitoring device is inoperative, and corresponding emission measurements.

3. Permittee shall maintain records of all source tests and monitoring and compliance information required by this permit.

4. Permittee shall maintain records and submit a written report of all excess emissions to EPA semi-annually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. The report is due on the 30th day following the end of each semi-annual period and shall include the following:

    a. Time intervals, data and magnitude of the excess emissions, the nature and cause (if known), corrective actions taken and preventive measures adopted;

    b. Applicable time and date of each period during which the CEMS was inoperative (monitor down-time), except for zero and span checks, and the nature of CEMS repairs or adjustments;

    c. A statement in the report of a negative declaration; that is, a statement

when no excess emissions occurred or when the CEMS has not been inoperative, repaired, or adjusted;

d. Any failure to conduct any required source testing, monitoring, or other compliance activities; and

e. Any violation of limitations on operation, including but not limited to restrictions on hours of operation.

5. Excess emissions shall be defined as any period in which the Facility emissions exceed the maximum emission limits set forth in this permit.

6. A period of monitor down-time shall be any unit operating clock hour in which sufficient data are not obtained to validate the hour for NO_x, CO or O_2, while also meeting the requirements of Condition X.F.7.

7. Excess emissions indicated by the CEM system, source testing, or compliance monitoring shall be considered violations of the applicable emission limit for the purpose of this permit.

8. All records required by this PSD Permit shall be retained for not less than five years following the date of such measurements, maintenance, and reports.

J. Shakedown Periods

The combustion turbine emission limits and requirements in Conditions X.C, X.D, and X.E shall not apply during combustion shakedown periods. Shakedown is defined as the period beginning with initial startup and ending no later than initial performance testing, during which the Permittee conducts operational and contractual testing and tuning to ensure the safe, efficient and reliable operation of the plant. The shakedown period shall not exceed 90 days. The requirements of Section III of this permit shall apply at all times.

XI. ACROYNMS AND ABBREVIATIONS

AEP	Avenal Energy Project
APCD	Air Pollution Control District
ASTM	American Society for Testing and Materials
Btu	British Thermal Unit
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CTG	Combustion Turbine Generator
District	San Joaquin Valley Air Pollution Control District
DLN	Dry Low NOx
(d)scf	(dry) Standard Cubic Feet
EPA	Environmental Protection Agency
g	Grams
gr	Grains
HHV	Higher Heating Value
HRSG	Heat Recovery Steam Generator
hp	Horsepower
hr	Hour
kW	Kilowatt
lbs	Pounds
MMBtu	Million British Thermal Units
MW	Megawatt
NO_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
NSCR	Non-Selective Catalytic Reduction
OTM	Other Test Method
Ox-Cat	Oxidation Catalyst
O_2	Oxygen
PM	Total Particulate Matter
PM_{10}	Particulate Matter with aerodynamic diameter less than 10 micrometers
ppmvd	Parts Per Million by Volume, Dry basis
ppmv	Parts Per Million by Volume
PSD	Prevention of Significant Deterioration
PUC	Public Utilities Commission
RATA	Relative Accuracy Test Audit
SCR	Selective Catalytic Reduction
STG	Steam Turbine Generator
tpy	Tons Per Year
µm	micrometers
yr	Year

XII. AGENCY NOTIFICATIONS

All correspondence as required by this Approval to Construct must be forwarded to:

A. Director, Air Division (Attn: AIR-5)
EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105-3901

Email: R9.AEO@epa.gov
Fax: (415) 947-3579

B. Air Pollution Control Officer
San Joaquin Valley Air Pollution Control District
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244

Email: sjvapcd@valleyair.org
Fax: (559) 230-6061

EXHIBIT 2

EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

October 15, 2009

VIA ELECTRONIC MAIL

Ms. Shirley Rivera (AIR-3)
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

Re: Proposed Prevention of Significant Deterioration Permit for the Avenal Energy Project (PSD Permit No. SJ 08-01)

Dear Ms. Rivera:

These comments are submitted on behalf of the Tehipite Chapter of the Sierra Club to oppose issuance of the prevention of significant deterioration ("PSD") permit proposed by EPA for the Avenal Energy Project in Kings County, California. The proposed permit fails to impose emission limits representing the best available control technology ("BACT") for all pollutants subject to regulation, and fails to demonstrate that this massive new pollution source will not cause or contribute to violations of any national ambient air quality standards in one of the worst-polluted regions in the country.

I. The Proposed Permit Fails to Address BACT for Carbon Dioxide ("CO2")

Commenters find it stunning that the proposed permit does not even mention CO2 emissions or controls. EPA is well aware that the Environmental Appeals Board ("EAB") has returned multiple PSD permits for failing to consider whether CO2 is a pollutant "subject to regulation" under the Clean Air Act. *See In re Deseret Power Elec. Coop.*, PSD Appeal No. 07-03 (EAB Nov. 13, 2008); *In re Northern Mich. University Ripley Heating Plant*, PSD Appeal No. 08-02 (EAB Feb. 18, 2009). In light of these decisions, EPA Region 9 also withdrew portions of the PSD Permit issued to Desert Rock Energy Company in order to reconsider the issue of whether CO2 is a pollutant subject to regulation. Yet EPA proposes a PSD permit for another power plant that will emit over 1.7 million tons of CO2 each year[1] without any discussion of these contentious issues whatsoever. EPA must revise the proposed permit to explain EPA's position on BACT for CO2 so that the public can comment on the control levels selected or EPA's rationale for refusing to impose such controls.[2]

[1] *See* "Avenal Energy Application for Certification," at 6.2-85 (reporting annual CO2 emissions of 1.71 million metric tons per year).

[2] For example, commenters should be informed if EPA's decision not to address controls for CO2 is based on the memo from former EPA Administrator Stephen Johnson entitled "EPA's Interpretation of

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While commenters believe EPA should be well informed of the legal and technical issues surrounding the control of CO2, commenters nonetheless provide the following summary.

1. The Clean Air Act Requires BACT for all Pollutants Subject to Regulation Under the Act.

The Clean Air Act defines BACT as an emission limitation based on the maximum degree of reduction of *each pollutant subject to regulation under this Act*." CAA § 169(3) (emphasis added). Thus, a BACT analysis for carbon dioxide must be completed if: (1) carbon dioxide is a "pollutant"; and (2) if it is "subject to regulation" under the Act.

a. Carbon Dioxide is a Clean Air Act "Pollutant"

The Supreme Court of the United States has held unequivocally that carbon dioxide is a "pollutant" as that term is used in the Act. *See Massachusetts v. EPA*, 549 U.S. 497, 528-29 (2007). In *Massachusetts*, "a group of States, local governments, and private organizations," including the Sierra Club, challenged EPA's contention that it lacked authority under the Clean Air Act to regulate greenhouse gas pollution, including carbon dioxide emissions, from motor vehicles. *Id.* at 504. The Court sided with challengers, ruling that "greenhouse gases fit well within the Clean Air Act's capacious definition of 'air pollutant.'" *Id.* at 532.

b. Carbon Dioxide is "Subject to Regulation"

Congress first enacted the PSD program (and the BACT requirements) as part of the 1977 Clean Air Act Amendments. One year later, EPA finalized its first regulations governing the PSD permitting process. In the preamble to those regulations, EPA stated:

Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program" (Dec. 18, 2008). This memo was issued in violation of the procedural requirements of the Administrative Procedure Act and conflicts with the plain language of the Clean Air Act. As a result, Administrator Jackson granted a petition for reconsideration on February 17, 2009 noting that the Johnson memo does not represent the "final word on the appropriate interpretation of Clean Air Act requirements." *See* Letter from Administrator Jackson, EPA, to David Bookbinder, Sierra Club (Feb. 17, 2009). EPA is in the process of formal rulemaking to resolve the meaning of the phrase "subject to regulation." *See* 74 Fed. Reg. 51535 (Oct. 7, 2009). If EPA Region 9 now contends that the Johnson memo does represent the "final word" without further discussion, commenters need to be made aware of this claim so that the appropriate record of responses can be prepared.

> Some questions have been raised regarding what "subject to regulation under this Act" means relative to BACT determinations. . . . "[S]ubject to regulation under this Act" means any pollutant regulated in Subchapter C of Title 40 of the Code of Federal Regulations for any source type.

43 Fed. Reg. 16388, 16397 (June 19, 1978) (*hereinafter* the "1978 Preamble").

As EPA is aware, there are multiple examples of regulations in 40 CFR Subchapter C that specifically apply to CO2. Attachment A hereto includes a list of the hundreds of federal regulations that address CO2 in one way or another. This section highlights two of these.

Section 821(a) of the 1990 Clean Air Act Amendments provides:

> Monitoring. – [EPA] . . . shall promulgate regulations within 18 months after the enactment of the Clean Air Act Amendments of 1990 to require that all affected sources subject to Title [IV] of the Clean Air Act shall also monitor carbon dioxide emissions . . . . The regulations shall require that such data be reported to the Administrator.

See 42 U.S.C. § 7651k note; Pub. L. 101-549; 104 Stat. 2699. In 1993, when EPA promulgated the regulations implementing this carbon dioxide monitoring and reporting program, it did so by amending Subchapter C of Title 40 of the Code of Federal Regulations. *See* 40 C.F.R. §§ 75.1(b), 75.10(a)(3), 75.33, 75.57, 75.60-64. The EAB recently confirmed that, based on this example, "the 1978 Federal Register Notice augers in favor of a finding that" CO2 *is* subject to regulation under the Act. *Deseret,* PSD Appeal No. 07-03, slip op. at 41.

As EPA is also aware, on April 29, 2008, the Agency approved a state implementation plan revision for Delaware establishing federally enforceable emission limits for CO2. *See* 73 Fed. Reg. 23101. EPA's approval notice stated that EPA was approving the CO2 emission limits for new and existing generators "in accordance with" and "under" the Clean Air Act. *See id.*; 73 Fed. Reg. 11845 (Mar. 5, 2008). EPA's approval made these CO2 control requirements enforceable under the Act. *See* CAA §§ 113, 304(a)(1) and (f)(3). These revisions to the state implementation plan appear in the regulations codified in Subchapter C of Title 40 of the Code of Regulations. *See* 40 CFR § 52.420

(2009). Accordingly, these regulations are also within the scope of the 1978 Preamble interpretation of "subject to regulation."

EPA in *Deseret* argued that "EPA does not currently have the authority to address the challenge of global climate change by imposing limitations on emissions of CO2 and other greenhouse gases in PSD permits." *Deseret*, PSD Appeal No. 07-03, slip op. at 16 (internal quotation marks omitted). The EAB rejected this rationale as "clearly erroneous." *Id.* at 9. It then rejected EPA's BACT decision and remanded the permit to EPA. *Id*. at 63. The EAB recently reaffirmed this decision. *See Northern Mich. U.*, PSD Appeal No. 08-02, slip op. at 31 (instructing the state agency on remand to be "guided by our findings in *Deseret*, to undertake the same consideration whether the CAA's 'pollutant subject to regulation' language requires application of a BACT limit to CO2 emissions").

While the EAB in *Deseret* found that the Clean Air Act is ambiguous and allows room for agency interpretation, it was careful to warn that the agency's discretion was not unbounded. It advised that construing the Act to require BACT for CO2 is not only plausible, but is also supported by the only regulatory history that speaks directly to the meaning of "subject to regulation." *Deseret*, PSD Appeal No. 07-03, slip op. at 38-42.

EPA's silence on the issue in the proposed Statement of Basis provides nothing to support its apparent decision to ignore CO2 controls. This approach is inconsistent with the EAB's directives following remand of the Deseret and Northern Michigan University permits. It also denies commenters the ability to meaningfully review and comment on the proposed permitting decisions. The failure to address the legal status of CO2 control is consequential for approval of this permit because the proposed permit does not otherwise ensure that CO2 will be subject to BACT.

2. The Proposed Avenal Project Is Not Subject to BACT for CO2

EPA's BACT analysis makes no mention of CO2. The proposed PSD permit for Avenal includes no conditions that limit or otherwise control CO2 emissions. If EPA had conducted any analysis, it could not have approved this project as meeting the BACT requirement for CO2.

A proper BACT analysis should have explored the full range of alternatives available to reduce CO2 emissions from the proposed project. These should have included energy production alternatives that do not rely on fossil fuel combustion, hybrid technologies

that combine energy sources to improve the overall carbon efficiency of the power plant,[3] requiring co-generation with the project, and changes to the project design that would lower total carbon emissions (e.g., elimination of supplemental duct burners for the heat recovery steam generators, or replacement of those burners with a more efficient microturbine or solar energy collection system[4]). At a minimum, the analysis should have explored opportunities for improved turbine efficiency. For an example of what this analysis should look like, commenters have attached the Additional Statement of Basis for the Russell City Energy Center prepared by the Bay Area Air Quality Management District, which is the delegated federal PSD permitting agency for the San Francisco Bay Area. BAAQMD, "Additional Statement of Basis -- Russell City Energy Center," at 21 (Aug. 3, 2009) (Attachment B, hereto).[5]

The California Energy Commission has reported that the proposed Avenal project will have an overall project fuel efficiency of 50.5 percent lower heating value. CEC, "Final Staff Assessment," at 5.3-1 (June 2009). This is a terribly inefficient combined-cycle facility that comes nowhere close to utilizing the best available technology to limit the emissions of CO2. In the early Russell City Energy Center review, the Bay Area Air Quality Management District noted an old 2002 analysis prepared by the CEC that looked at three turbines and found efficiencies between 55.8 and 56.5 percent. *See* BAAQMD, "Statement of Basis for Russell City Energy Center," at 64 n.66 (Dec. 8, 2008). Upon further review, the Bay Area Air Quality Management District found that a gross efficiency of 56.45 percent lower heating value was achievable and required for the Russell City Energy Center. BAAQMD, "Additional Statement of Basis for Russell City Energy Center," at 21.

EPA's analysis should also consider emerging technology that promises efficiencies of between 58 and 60 percent. Of particular note is General Electric's H system turbines, which can reportedly achieve greater than 60 percent efficiency. *See* www.gepower.

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[3] *See, e.g.*, http://www.energy.ca.gov/sitingcases/victorville2/index.html (Victorville 2); http://www.reuters.com/article/environmentNews/idUSN1139875020080612 (PG&E Coalinga project); http://my.epri.com/portal/server.pt/gateway/PTARGS_0_237_317_205_776_43/http;/uspalecp604;7087/publishedcontent/publish/epri_to_evaluate_adding_solar_thermal_energy_to_fossil_power_plants_da_609034.html (EPRI projects).

[4] *See, e.g.*, http://appft1.uspto.gov/netacgi/nph-Parser?Sect1=PTO1&Sect2=HITOFF&d=PG01&p=1&u=/netahtml/PTO/srchnum.html&r=1&f=G&l=50&s1='20080127647'.PGNR.&OS=DN/20080127647&RS=DN/20080127647 (application for patent on solar energy system to supplement thermal energy for heat recovery steam generators).

[5] By referencing the Russell City analysis, commenters do not mean to suggest that the analysis is without fault. But the analysis should serve as a useful starting point for EPA.

com/prod_serv/products/gas_turbines_cc/h_system/index.htm. These turbines have been in operation in Balgan Bay, Wales since 2003 and at the Tokyo Electric Power Company's Futtsu Thermal Power Station in Japan since 2007. *See* Attachment C, hereto. These turbines have also been proposed for use at the Inland Empire Energy Center here in California. *Id.*[6]

Once EPA determines the efficiency that represents best available control technology, EPA must translate that performance into enforceable limits on CO2 emissions. Again, the Russell City Energy Center analysis provides a useful example of how this can be accomplished. *See* BAAQMD, "Additional Statement of Basis for Russell City Energy Center," at 24-26 (using heat input per kilowatt-hour). The BACT determination for Russell City Energy Center equates to CO2 emissions of roughly 900 pounds of CO2 per megawatt-hour of energy produced.[7] A review of permitting decisions for other sources suggests that even lower levels are achievable. For example, the Carlsbad Energy Project, which is a retrofit of a peaking power plant (i.e., presumably less efficient than a new baseload plant), will emit 891 pounds of CO2 per megawatt-hour (.405 mt CO2/MW-hr). *See* Preliminary Staff Assessment, Carlsbad Energy Center Project (07-AFC-6) (CEC-700-2008-014-PSA) at 4.1-102 (Dec. 11, 2008).

EPA must revise the statement of basis to include an analysis of CO2 emissions and controls. The proposed project comes nowhere close to achieving the emission levels of CO2 that could be achieved using BACT.

II. The Proposed Permit Fails to Fully Analyze BACT for Oxides of Nitrogen ("NOx"), Carbon Monoxide ("CO") or Coarse Particulate Matter ("PM10")

The Clean Air Act requires that the proposed facility be subject to the best available control technology for each pollutant subject to regulation that results from the facility. CAA § 165(a)(4). The Act defines "best available control technology" as "the maximum degree of reduction of each pollutant . . . which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility . . . ." *Id.* § 169(3). EPA's guidance provided in the New Source Review Workshop Manual (draft Oct. 1990) outlines the

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[6] Westinghouse has also introduced its advanced turbine system (ATS) program with preliminary results demonstrating efficiencies over 60 percent. *See* Attachment D.

[7] Emissions will depend on the carbon content of the natural gas fuel. *See* BAAQMD, "Additional Statement of Basis for Russell City Energy Center," at 29 n.49 (reporting varying emission factors).

analytical steps typically followed to make this case-by-case determination. *See Northern Mich. U.*, PSD Appeal No. 08-02, slip op. at 12.

Nowhere in the Statement of Basis for the proposed Avenal project does EPA provide anything resembling a top-down analysis. Instead EPA appears to apply a cookie-cutter review of old permit levels to justify limits proposed with no analysis by the source or the San Joaquin Valley Unified Air Pollution Control District. This approach is particularly troubling for CO.

The proposed permit concludes that BACT for CO is met by a limit of 2.0 parts per million by volume on a dry basis (ppmvd) over a 1-hour averaging period. Avenal Statement of Basis, at 18. This conclusion is based on a review of permitting levels for other sources using similar oxidation catalyst control technology. *Id.*

The first problem with EPA's analysis is that it is incomplete. At least two facilities have recently been permitted with CO emission levels below 2.0 ppmvd: Kleen Energy Systems in Connecticut (0.9 to 1.7 ppmvd)[8] and CPV Warren in Virginia (1.3 and 1.8 ppmvd without duct burning).[9] At a minimum, EPA's analysis should have started with these levels as the top level of control for the analysis. *See* NSR Manual at B.24 ("[W]hen reviewing a control technology with a wide range of emission performance levels, it is presumed that the source can achieve the same emission reduction level as another source unless the applicant demonstrates that there are source-specific factors or other relevant information that provide a technical, economic, energy or environmental justification to do otherwise.").

Based on these lower permit levels, the Bay Area Air Quality Management District analyzed the costs and emission reduction benefits of installing a larger oxidation catalyst capable of consistently maintaining CO emissions below 1.5 ppmvd for the Russell City Energy Center. *See* BAAQMD, "Additional Statement of Basis for Russell City Energy Center," at 48. The District found that such levels could be achieved at a cost-effectiveness of $4500 per ton of CO reduced. *Id.* This level of CO cost-effectiveness is consistent with the BACT cost-effectiveness levels found in a 2002 survey prepared for the Air and Waste Management Associations. *See* Hydari, N., et al., "Comparison of the Most Recent BACT/LAER Determinations for Combustion Turbines

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[8] Connecticut Dept. of Env'tl Protection, Bureau of Air Mgmt, "New Source Review Permit to Construct and Operate a Stationary Source, issued to Kleen Energy Systems, LLC" (Feb. 25, 2008).

[9] Virginia Dept. Env'tl Quality, "Prevention of Significant Deterioration Permit – CPV Warren, LLC,"(July 30, 2004) (Attachment E hereto).

for State Air Pollution Control Agencies," Table 7 (2002) (Attachment F, hereto). That analysis found that the *average* (i.e., some of the permits had higher cost-effectiveness numbers and some had lower) cost-effectiveness of CO controls required in Arkansas was $3,373 per ton and in Michigan was $4,944 per ton. *See id.*; *see also* Letter from Steven Riva, Chief, Permitting Section, Region 2, EPA, to Robert Ewing, Project Manager, NYDEC, at 2-3 (Sept. 27, 2000) (concluding for the Sithe Heritage Station Generating Facility, in Scriba, New York that $3,412 per ton would be an acceptable cost for CO controls but that an option that would result in costs "well over $6,000 per ton" would not be BACT) (available at: http://www.epa.gov/region07/programs/artd/air/nsr/nsrmemos/sithe.pdf).

EPA cannot simply rule out CO limits below 2.0 ppmvd without providing an analysis on the record of the feasibility and cost-effectiveness of improved performance. EPA must provide the missing top-down analysis for each of the pollutants subject to BACT.

The more fundamental problem with EPA's analysis, *which infects the analysis of each of the pollutants analyzed in the Statement of Basis*, is that a simple review of permitted levels is not a substitute for a BACT analysis. EPA's analysis fails to consider the range of control options available for the proposed source. As noted above, higher efficiency turbine options are available but have never been considered. Improved efficiency coupled with proposed controls would lower overall emissions, including CO. Moreover, alternatives to the supplemental duct-firing to produce peak power should also have been explored as this duct firing is extremely inefficient and significantly increases CO and NOx emission rates. *See* "Avenal Energy Application for Certification," at 6.2-43, Table 6.2-20.

By relying only on permit limits without exploring the effectiveness of the required controls themselves, EPA's analysis fails to provide a ranking of the control methods used to achieve these reported permit limits. *See* NSR Manual at B.6-7. EPA should have considered the inlet concentrations at these sources to determine (and rank) the removal effectiveness at the various sources. In addition, EPA should have reviewed not just permit limits, but actual emissions data from sources. *See* NSR Manual at B.23 (noting "the applicant should use the most recent regulatory decisions *and performance data* for identifying the emission performance level(s) to be evaluated in all cases.") (emphasis added). Using this data, EPA should have then applied the top-ranked control effectiveness (e.g., 98 percent pollutant removal) to the best achievable turbine efficiency performance level (as noted above) to determine the top-ranked BACT level of control.

Without a proper top-down BACT analysis, there is no basis for concluding that the Avenal project cannot achieve lower emissions. At a minimum, for CO, other sources have received lower permit limits and a rough analysis prepared by the Bay Area Air Quality Management District for a similar source suggests that such limits may be within an acceptable cost-effectiveness range. EPA must prepare the missing analysis and explain why those results are or are not reasonable as BACT.

III. The Proposed Permit Fails to Demonstrate that the Avenal Project Will Not Cause or Contribute to Violations of National Ambient Air Quality Standards for Ozone and Fine Particulate Matter.

Clean Air Act section 165(a)(3) provides that a PSD permit may not be issued unless the facility proponent "*demonstrates* . . . that emissions from the construction or operation of such facility will not cause, or contribute to, air pollution in excess of *any* . . . national ambient air quality standard in any air quality control region . . . ." (emphasis added); *see also* 40 CFR § 52.21(k)(1). The federal regulations require that the application for a PSD permit contain an analysis of ambient air quality in the area that the major source would affect for each pollutant emitted from the source in significant amounts. *Id.* § 52.21(m)(1)(a). The thresholds for determining whether emissions will be "significant" are provided in section 52.21(b)(23)(i) of the federal regulations. The threshold for PM2.5 emissions is 10 tons per year and for NOx, as a precursor to both PM2.5 and ozone, is 40 tons per year. *Id.* § 52.21(b)(23)(i).

The proposed Avenal project will result in emissions of 80.7 tons per year of PM2.5 and 144.3 tons per year of NOx. *See* "Avenal Energy Application for Certification," at 6.2-45, Table 6.2-24. Yet nowhere in the proposed PSD permit nor the facility's air quality analysis of its Application for Certification, is there any analysis of the impact the facility will have on ambient concentrations of ozone or PM2.5.

Commenters are aware of the exemption provided in 40 CFR 52.21(i)(2), which waives regulatory source impact analysis and air quality analysis requirements with respect to pollutants for which the area is designated nonattainment. This exemption, however, does not excuse the failures here. While the regulatory requirements as to how to make the required demonstration may be waived, this exemption cannot waive the statutory requirement to make the demonstration at all. Such an application of this regulatory requirement would be a clear violation of the statute. Thus, even if, as a result of this exemption, EPA's rules are silent as to how this demonstration must be made, the Act

still requires a demonstration that the source will not cause or contribute to a violation of "any" NAAQS. Moreover, with respect to the regulatory requirements, EPA has only just designated the San Joaquin Valley with respect to the 24-hour 35 $\mu g/m^3$ standard for PM2.5 and has not yet designated the Valley for the 75 parts per billion ("ppb") standard for ozone. Thus to the extent there is any rationale behind the regulatory exemption, it is not present here because the area does not have plans for meeting these new standards that will assure that any growth in emissions is consistent with attainment. Nor, as will be discussed in more detail below, can EPA rely on the San Joaquin Valley Unified Air Pollution Control District's dysfunctional nonattainment new source review program to fully offset these emissions. EPA cannot ignore the air pollution disaster in the San Joaquin Valley and approve this major new source without ensuring that it will not exacerbate the problems in the area.

A. The Applicant's Air Quality Analysis is Defective

In its Application for Certification, the project proponents report the results of their air quality analysis claiming "[t]hese analyses are designed to confirm that the proposed project's design features lead to less-than-significant impacts" even under conservative assumptions regarding emissions and other conditions. "Avenal Energy Application for Certification," at 6.2-40. The analysis, however, fails to meet this stated objective.

At the outset, there is no discussion of ambient ozone impacts whatsoever. The air quality analysis reports that 3-year average 8-hour ozone concentrations measured at the nearby Hanford monitoring site consistently exceed the 75 ppb standard. *See* "Avenal Energy Application for Certification" at 6.2-8 (reporting average concentrations of 95 ppb for 2004, 88 ppb for 2005 and 86 ppb for 2006). The analysis states that "ambient air quality measurements recorded at the monitoring stations are believed to represent area-wide ambient conditions rather than the localized impacts of any particular facility." *Id.* at 6.2-7. The analysis includes no other relevant discussion as to how the significant NOx emissions from the Avenal plant will or will not contribute to the ozone problem in the area. EPA's proposed Statement of Basis offers nothing more. The analysis does not claim that the impact will be insignificant or completely offset; the analysis is simply silent with respect to ozone impacts. Commenters cannot meaningfully comment on how this proposed project fulfills the requirement of section 165(a)(3) when there is no demonstration to review.

Avenal's analysis does purport to address PM2.5[10] but is fatally flawed. The analysis notes that emissions from the project will contribute to violations of state and national standards for PM10 and PM2.5 but adds that "[f]or these pollutants, existing concentrations already exceed the state and federal standards." "Avenal Energy Application for Certification," at 6.2-65. The project proponent appears to conclude that this is not a problem for permitting because "the project contribution of PM10 is less than the significant impact levels" provided in 40 CFR § 51.165(b). *Id.* at 6.2-72.

Section 51.165(b)(2) provides: "A major source or major modification will be considered to cause or contribute to a violation of a national ambient air quality standard when such source or modification would, at a minimum, exceed the following significance levels at any locality that does not or would not meet the applicable national standard." The section then defines the significant impact levels ("SILs") for PM10 as 1 $\mu g/m^3$ for the impact on annual concentrations and 5 $\mu g/m^3$ for the impact on 24-hour concentrations.

Avenal's conclusion that the impacts will not be significant is based on its modeling conclusions that maximum particulate matter impacts will be 0.8 $\mu g/m^3$ annually and 2.9 $\mu g/m^3$ for 24-hour concentrations. *See* "Avenal Energy Application for Certification," at 6.2-68, Table 6.2-34. These levels are below the significant impact levels promulgated for PM10.

The first problem with this conclusion is that the significant impact levels used are not relevant to, or appropriate for, PM2.5. To date, EPA has not promulgated similar *de minimis* thresholds for PM2.5. Avenal's comparison of modeled PM2.5 concentrations[11] to the PM10 levels is irrelevant for purposes of demonstrating that the source will not cause or contribute to a violation of the PM2.5 standards. Avenal appears to be operating under the mistaken belief that PM10 can be used as a surrogate for determining compliance with section 165(a)(3). *See* "Avenal Energy Application for

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[10] The "Air Dispersion and Modeling Health Risk Assessment Protocol" prepared by Sierra Research stated that the analysis of PM2.5 ambient impacts would be conducted "for non-PSD purposes." Sierra Research, "Air Dispersion and Modeling Health Risk Assessment Protocol – Avenal Energy Project," at 3, Table 1 n. c, and 6 (Aug. 2007) (included in "Avenal Energy Application for Certification" Appendix 6.2). This qualification is not repeated in the air quality section of the Application for Certification, so commenters will assume Avenal believes it did attempt to address the requirements of Clean Air Act section 165(a)(3) with respect to the national standards for PM2.5.

[11] Avenal's reported particulate matter concentrations are assumed to be PM2.5 concentrations because all particulate matter emissions are assumed to be PM2.5 emissions. *See* "Avenal Energy Center Application for Certification," at 6.2-43, Table 6.2-19 n. b, Table 6.2-20 n. a, and Table 6.2-21 n. a.

Certification," at 6.2-34, Table 6.2-14 n. c (noting EPA guidance "provides that compliance with the federal PM2.5 NAAQS should be evaluated using the PM10 NAAQS and not modeled directly."). The use of the PM10 surrogate policy, to which Avenal seems to be referring, was available to PSD permit applications submitted before July 15, 2008. *See* 40 CFR § 52.21(b)(50)(xi). This illegal grandfathering exemption, however, is no longer available and has been stayed pending EPA rulemaking to revoke this exemption. *See* 74 Fed. Reg. 48153 (Sept. 22, 2009).

In the absence of a promulgated significant impact level that affords a *de minimis* exemption for purposes of evaluating the ambient PM2.5 contribution of sources, EPA has been clear that there is no *de minimis* exemption. *See* EPA, "Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers in Diameter (PM2.5): Response to Comments" at 82 (Mar. 2008). Should a permitting agency wish to establish its own *de minimis* contribution thresholds, EPA has advised that they "are not precluded from developing and applying their own SILs for PM2.5 in the interim and demonstrating that a cumulative analysis would yield trivial gain." *Id.* Notwithstanding this direction, neither EPA nor Avenal has proposed any such PM2.5 SIL, let alone made any demonstration that such contributions would be trivial. Avenal used the PM10 SIL thinking that it could rely on the surrogate policy. It did not try to suggest that the same SIL was a reasonable *de minimis* threshold for the lower PM2.5 standards.

The concept of a SIL is grounded in the *de minimis* principles described by the court in *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1980). That court held that, "[u]nless Congress has been extraordinarily rigid, there is likely a basis for an implication of *de minimis* authority to provide exemption when the burdens of regulation yield a gain of trivial or no value." *Id.* at 360-61. The court emphasized that this is not a determination of whether the costs of control are justified by the benefits, but purely a determination that there will be no real benefit from control. *Id.* at 361. The court added that "when matters are truly *de minimis* naturally will turn on the assessment of particular circumstances, and the agency will bear the burden of making the required showing." *Id.* at 360. Neither EPA nor Avenal made any attempt to make the required demonstration let alone to meet the heavy burden required to do so.

Commenters note that EPA proposed SILs for PM2.5 in 2007. *See* 72 Fed. Reg. 54112 (Sept. 21, 2007). Under two of the three options EPA proposed, the modeled levels of Avenal's PM2.5 impacts would be considered significant. *See id.* at 54140. Commenters hasten to add, however, that even these proposed SILs are arbitrary numbers based on

ratios that have no demonstrated or rational relationship to compliance with the NAAQS, and are not based on any demonstration of *de minimis* impacts. The numbers have no connection to what a *de minimis* source might look like or contribute to nonattainment. EPA has offered no evidence that the gain from regulating sources with impacts below the proposed SILs will in fact be trivial. For example, the most protective proposed "option 3" Class II 24-hour SIL of 1.2 μg/m3 is fully 13 percent of the entire 24-hour increment EPA proposes for these areas. It is absurd to claim that a source consuming over 10 percent of the allowable increment (*i.e.*, the maximum deterioration allowed in clean areas) has only a "trivial" impact in an area that is already violating the standard.

If EPA and Avenal propose to demonstrate compliance with section 165(a)(3) by claiming that the contribution to violations of the ozone or PM2.5 NAAQS will be *de minimis*, EPA and Avenal need to offer for public comment the rationale for applying a given threshold. The proposed PSD permit includes nothing of the sort.

Even if one were to accept the use of the PM10 thresholds, Avenal's modeling analysis would still be inadequate to demonstrate compliance with section 165(a)(3) because the modeling results do not account for the contribution of secondary PM2.5 (or ozone) formation as a result of the significant NOx emissions from the source. There is no basis for refusing to include secondarily formed PM2.5 in the assessment of ambient impacts. As EPA explained in its rulemaking proposing the increments of deterioration that it will allow, the Agency compared "the marginal pollutant concentration increases allowed by the safe harbor increment levels against the pollutant concentrations at which various environmental responses occur." 72 Fed. Reg. at 54133. In determining the scope of environmental effects, EPA "evaluated the health and welfare effects of both direct PM2.5 and secondarily-formed PM2.5 that may result from the transformation of other pollutants such as SO2 and NOx." *Id.* at 54127. It would be irrational to suggest that notwithstanding the fact that the increments are based on an assessment of the impacts of both direct and secondary PM2.5, the modeling to determine if such increments are violated or significantly impacted need only consider the direct fraction of these emissions.

This approach would be especially irrational here, where the District has already acknowledged that secondary PM2.5 in the form of ammonium nitrate is a major component of ambient PM2.5 concentrations in the San Joaquin Valley. *See* San Joaquin Valley Unified Air Pollution Control District, "2008 PM2.5 Plan," at 3-7 (April 30, 2008) (adding that "ammonium nitrate formation is limited by the availability of nitric acid");

see also id. at 6-6 (noting District's strategy is to "giv[e] priority to NOx controls."). The analysis of Avenal's impact on ambient PM2.5 concentrations simply cannot ignore the addition of 144 tons per year of NOx emissions in assessing whether the contribution to PM2.5 nonattainment in the Valley will be significant.

Models are available to conduct this required analysis. Section 5.2.2.1.a of Appendix W to 40 CFR Part 51 ("Guideline on Air Quality Models") advises that in choosing models for analyzing the impacts of multiple sources (which would be the exercise required for Avenal if it chooses to claim the ambient air quality benefits of the emission reduction credits it has acquired), "[c]ontrol agencies with jurisdiction over areas with secondary PM-2.5 problems . . . [should] use models which integrate chemical and physical processes important in the formation, decay and transport of these species (e.g., Models-3, CMAQ or REMSAD)." While the guidelines note that "generally regional models are not designed for the evaluation of individual sources," they also provide that "[i]f it is determined that regional transport of secondary particulates, such as sulfates or nitrates, is likely to contribute significantly to the problem, use of a regional model may be the preferred approach." *See* 40 CFR Part 51, App. W, §§ 5.1.f and 7.2.6.b.

In addition to considering secondary pollutant formation, the analysis should analyze the effect of adding 1.7 million tons per year of CO2 to the area. Recent studies have shown that emissions of CO2, can create localized increases in ambient concentrations (so called CO2 "domes") that in turn alter local atmospheric chemistry, increasing the formation of ozone and fine particulate matter concentrations. *See* Jacobson, M., "On the casual link between carbon dioxide and air pollution mortality," 35 Geophys. Res. Letters L03809 (Feb. 2008) (Attachment G, hereto). Of particular concern is the effect on particulate matter formation. As Dr. Jacobson explains in a recent paper, "While higher temperatures slightly decrease[] PM2.5, higher water vapor due to [anthropogenic CO2 emissions] increased PM2.5 by increasing aerosol water content, increasing nitric acid and ammonia gas dissolution, forming more particle nitrate and ammonium." Jacobson, M., "The enhancement of local air pollution by urban CO2 domes," at 3 (April 3, 2009) (Attachment H, hereto). The result, according to Dr. Jacobson's modeling, was a net increase in PM2.5 concentrations with increases in CO2 emissions. *Id.*

As noted above, it is no excuse to hide behind the claim that these atmospheric chemistry issues are difficult to model. Dr. Jacobson has outlined an approach to quantifying the local impact of increasing CO2 emissions. *See* Attachment G. There are several options for modeling these impacts EPA could explore. EPA could use the PM2.5 impacts predicted without increased CO2 and then apply Dr. Jacobson's

approach to adjust these results. Alternatively, EPA could use Dr. Jacobson's approach to look at how CO2 emissions increases will affect temperature and aerosol water content, and then use these numbers as inputs in the underlying PM2.5 modeling.

In the end, the analysis conducted to date on the ambient impacts of the Avenal plant is insufficient to "demonstrate[]" that emissions will not cause or contribute to air pollution in excess of the PM2.5 NAAQS. *See* CAA § 165(a)(3). Should EPA and Avenal persist in trying to claim that this new major source of pollution will contribute only insignificantly to ongoing violations of the ozone and PM2.5 NAAQS, EPA must work with Avenal to prepare an adequate analysis and circulate that analysis for public review and comment.

It is important to note that a *de minimis* demonstration is not the only option available to Avenal. As EPA has explained, "where emissions from a proposed PSD source or modification would have an ambient impact in a non-attainment area that would exceed the [significant impact levels], the source is considered to cause or contribute to a violation of the NAAQS and may not be issued a permit without obtaining emission reductions to compensate for its impact." 72 Fed. Reg. 54112, 54138 (Sept. 21, 2007). In other words, a facility can still be permitted even if the impact on ambient concentrations in a nonattainment area would be significant as long as the source can demonstrate that it has obtained emission reductions from other sources to compensate for its impact. This alternative is discussed in more detail below.

B. The District's Defective Offset Requirements Will Not Prevent the Project from Contributing to Violations of the National Standards

Neither EPA nor Avenal has suggested that the impacts on ambient concentrations of PM2.5 and ozone will be offset, nor could they based on the current record. As noted above, the impacts on ambient ozone have never been assessed and the analysis of the impacts on ambient PM2.5 concentrations is defective. More importantly, neither EPA nor Avenal has provided any record for showing how the offsets obtained for this project will compensate for the impacts of this source. To the contrary, based on the record to date, it is clear that the emission reduction credits described by Avenal will provide no compensating benefit whatsoever to offset the new ambient impacts the Avenal plant will create.

The first problem with relying of the District's nonattainment new source review program to satisfy the requirement of section 165(a)(3) is that the nonattainment new

source review program and the PSD program are fundamentally different when it comes to offsets. The nonattainment new source review program looks at the balancing of emissions increases and decreases as a kind of accounting problem based on tons of emissions. *See* CAA § 173(a) (focusing on "total tonnage" of emissions). This is particularly true for the District's new source review program. EPA has recognized that the District's program fails to comply with the requirements of the Clean Air Act by, among other things, allowing sources to offset only to preset thresholds rather than down to zero, failing to apply the ratios specified in the Act, and refusing to ensure that emission reductions are surplus at the time of use. *See* 66 Fed. Reg. 37587 (July 19, 2001). EPA has waived these statutory violations by allowing the District to demonstrate overall equivalency of the District's offset requirements to the requirements of the Clean Air Act. *See* 69 Fed. Reg. 27837 (May 17. 2004). This accounting approach has no relation to what is actually happening in the ambient air. Moreover, while the equivalency approach relied upon in the District might have been theoretically viable at the time EPA approved it, the approach has become bankrupt with the District's bump up to extreme nonattainment for ozone in 2004. Since then, the federal rules should have been requiring offsets for sources with NOx or VOC emissions over 10 tons per year, but the District has not been applying these lower thresholds in its annual equivalency demonstration. At this point, there is no rational basis for believing that the District is achieving all of the emission reductions needed even to meet the accounting requirement of Clean Air Act section 173(a).

The requirements in section 165(a)(3) and 51.165(b)(3), by contrast, focus on "air pollution" and the "impact" on "air quality" as opposed to merely the tons of emissions. This difference is often used to the advantage of sources seeking a PSD permit by allowing them to claim that their significant impacts can be mitigated through less than complete offset of their emissions. Here, however, because the District allows sources to use offsets that are worthless in their benefit to air quality, the requirements of section 165(a)(3) cannot be met through the bankrupt accounting games approved for the nonattainment new source review program in the San Joaquin Valley.

In its Final Determination of Compliance ("FDOC") document, the District calculated what it asserts are acceptable offset targets for the project's NOx, VOC, and PM10 emissions. The District established these offset targets as the project's total emissions, minus any emissions from exempt equipment, minus an 'offset threshold' for each pollutant, times a distance offset ratio of 1.5:1 (because the reductions used as offsets took place more than 15 miles from the Avenal project). Additionally, the District

allowed the substitution of SOx emission reduction credits to offset PM-10 emissions at a 1:1 ratio.

As noted above, this calculation of the emission reduction credits ("ERCs") needed to offset the tons of emission increases that will be generated by Avenal includes no analysis of the actual impact the proposed project will have on air quality or the mitigation of that impact that will be provided by the ERCs. As explained by the CEC in a letter dated August 12, 2008, (Attachment I, hereto), the applicant's proposed mitigation includes the use of ERCs issued between 1991 and 2002. While the District may allow the use of these very old ERCs to satisfy the accounting requirements of its defective nonattainment new source review program, for PSD purposes, the reductions represented by these ERCs are already reflected in the current ambient air quality concentrations used to assess Avenal's projected impact. Neither EPA nor the District has demonstrated how emissions reductions that are already reflected in current air quality levels, which continue to violate the national standards, can be used to show that the new emissions from the proposed project will not cause or contribute to a violation of any NAAQS in the project impact area.

In addition, as the District has pointed out, the reductions being used as offsets took place well outside the proposed project site. In fact, as far as commenters can tell[12], a majority of the reductions took place more than 75 miles away from the proposed project location. Without performing modeling or other technical analysis to show how these distant reductions can possibly offset the impact of the new emissions on the project impact area, EPA cannot conclude that the ERCs identified by the applicant adequately prevent the project from causing or contributing to a violation of any NAAQS.

Finally, even if the temporal and spatial defects of these offsets could be ignored, the emission reductions suffer from the further defect that the District relies on inter-pollutant trading that has no rational basis. The District has allowed Avenal to comply with the nonattainment new source review requirements for PM2.5 offsets by substituting SOx emission reductions on a 1 to 1 basis (this ratio becomes 1.5 to 1 when factoring in the distance offset ratio). This ratio is entirely unsupported by the record. EPA, in its implementation of the new source review program for PM2.5, determined a

[12] Despite an August 12, 2008 request by the CEC, a full description of the original emission reduction site and date, and the method of reduction for the ERCs was never provided by the applicant or the District. In fact, a number of the ERCs listed in the FDOC do not even appear on the District's Emission Reduction Credits Registry.

nationwide preferred ratio of 40 to 1 for trading SOx emission reductions for PM2.5 emission reductions, unless a demonstration can be made, substantiated "by modeling and/or other technical demonstrations of the net air quality benefit for PM2.5 ambient concentrations," that another ratio is locally appropriate. 73 Fed. Reg. 28321, 28339 (May 16, 2008). According to EPA, these local determinations must address a number of local factors, including but not limited to: 1) the relative magnitude of emissions of direct PM2.5 and precursor gases within the geographic area, 2) the relative contribution to local PM2.5 nonattainment of directly emitted PM2.5 and individual precursors from the various sources or source categories under consideration as part of a potential inter-pollutant trade, and 3) the meteorological conditions and topography of the area, which result in different source-receptor relationships across pollutants within the local area. *Id*. The District has never made any such demonstration to justify the lower ratio applied here.[13] Given the total absence of analysis supporting a 1 to 1 benefit ratio for SOx emission reductions, EPA simply cannot reasonably rely on the SOx ERCs required by the District to meet the requirements 165(a)(3) for PM2.5.

While EPA could grant Avenal a PSD permit with a showing that the contributions to ongoing ozone and PM2.5 nonattainment concentrations will be offset, no such demonstration has been made to date. The emission reduction credits allowed to be used under the defective San Joaquin Valley Unified Air Pollution Control District nonattainment new source review program are insufficient to satisfy this demonstration. Should EPA wish to rely on an argument that emission reductions have been required to compensate for the ambient impacts of the Avenal project, EPA must make that demonstration on the record and circulate it for public review and comment.

IV. CONCLUSION

There is still considerable work to be done on this proposed PSD permit. Many critical issues have not been analyzed and a revised proposal is necessary. Commenters look forward to working with EPA to ensure the completion of a full and open analysis of the air quality issues surrounding this proposed project.

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[13] As EPA pointed out in comments on another San Joaquin Valley power plant project, the District's "methodology" for determining appropriate inter-pollutant ratios has never been approved by EPA. *See* EPA's May 21, 2009 Comments on Project Number N-1083212 ("the underlying methodology to determine the appropriate ratios for inter-pollutant offsets has not been approved by EPA . . . It is important to note that modeling is a critical component of an inter-pollutant offset analysis . . . .") (See Attachment J, hereto)

Sincerely,

Paul Cort
Staff Attorney

EXHIBIT 3

EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

April 21, 2010

VIA ELECTRONIC MAIL

Ms. Shirley Rivera (AIR-3)
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105-3901

Re: Short-term NO_2 NAAQS and the Proposed Prevention of Significant Deterioration Permit for the Avenal Energy Project (PSD Permit No. SJ 08-01)

Dear Ms. Rivera:

Greenaction for Health and Environmental Justice, California Communities Against Toxics, the Center on Race, Poverty & the Environment, Pacific Environment, and the Tehipite Chapter on behalf of the Sierra Club write to request that EPA require the Avenal Power Center, LLC to demonstrate that its proposed new 600 MW electric power generating plant in Avenal, California will not cause or contribute to violations of the 1-hour national ambient air quality standard ("NAAQS") for nitrogen dioxide ("NO_2"). EPA promulgated the final 1-hour NO_2 standard on February 9, 2010. 75 Fed. Reg. 6474 (February 9, 2010). The standard became effective April 12, 2010. *Id.* Given the lack of the required demonstration in the permit application, these groups further request that EPA withdraw its March 19, 2008 determination that the Avenal Power Center's application is administratively complete. *See* Letter from Gerardo Rios, Chief, Permits Office, U.S. EPA, Region IX, to Stuart Zisman, Avenal Power Center, LLC (Mar. 19, 2008). Because the application fails to include the information necessary for assessing the potential impact of the proposed source on ambient 1-hour NO_2 concentrations in the heavily polluted San Joaquin Valley, the application does not meet the definition of "complete" provided in 40 CFR § 52.21(b)(22).

The new 1-hour NO_2 standard of 100 parts per billion is necessary to protect public health, especially that of the elderly and children, from the harms of short-term exposure to elevated levels of NO_2. As such, the standards will help reduce respiratory-related emergency room visits and hospital admissions. *See* U.S. EPA, Fact Sheet: Final Revisions to the National Ambient Air Quality Standards for Nitrogen Dioxide, available at http://www.epa.gov/air/nitrogenoxides/pdfs/20100122fs.pdf. EPA issued the 1-hour standard because a short-term NAAQS is necessary to protect public health above and beyond the existing annual standard. *See, e.g.*, 75 Fed. Reg. at 6483-90. Demonstrating protection of only the annual NO_2 standard therefore is insufficient to comply with the Clean Air Act's New Source Review program and to protect public health.

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As a proposed major new source of NO_2, the 600 MW plant cannot be permitted if it will negatively impact air quality. The Clean Air Act clearly prohibits the construction of a major facility unless the owner or operator "demonstrates . . . that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of *any* . . . national ambient air quality standard in any air quality region . . . ." Clean Air Act § 165(a)(3) (emphasis added). The 1-hour NO_2 NAAQS is "any" national ambient air quality standard, and thus Avenal must make the required demonstration under the short-term NAAQS.

EPA has recognized that "major new and modified sources applying for NSR/PSD permits must demonstrate that their proposed emissions increases of NO_x will not cause or contribute to a violation of *either the annual or the 1-hour* NO_2 NAAQS . . . ." 75 Fed. Reg. at 6525 (emphasis added). The Agency furthermore has commented that any final permit issued after the April 12, 2010 effective date of the new NO_2 standard must include the required air quality demonstration for the 1-hour NO_2 NAAQS. *See* Memo from Stephen D. Page, Director, OAQPS, EPA, to EPA Regional Air Division Directors (April 1, 2010).[1]

The proposed Avenal Power Plant will emit 144.3 tons per year of NO_2. *See* EPA, "Statement of Basis and Ambient Air Quality Impact Report: Avenal Energy Project" at 14 (June 2009). The applicant has not submitted any analysis to demonstrate protection of the 1-hour NO_2 NAAQS of 100 ppb from this significant new source of NO_x pollution. EPA must either require a 1-hour NO_2 analysis or deny the permit for failure to demonstrate protection of this NAAQS. The modeling analysis must use emission rates that reflect the maximum short-term rate under the draft permit to match the short-term NAAQS.

Commenters are aware that Avenal Power Center, LLC has filed a deadline action against EPA for failure to act on Avenal's permit application within the deadlines provided under Clean Air Act section 165(c). Given the absence of the required analysis regarding potential 1-hour NO_2 impacts, commenters believe any settlement of this litigation that commits EPA to act within a specified time period would be premature. Instead, EPA must withdraw its determination that the Avenal application is administratively complete pending submission of the missing analysis. Once that analysis is provided, EPA can reassess whether all of the information necessary for assessing the application has been provided, *see* 40 CFR § 52.21(b)(22), and then re-propose its decision along with the supporting statement of basis.

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[1] *See also* Letter from Becky Weber, Director, Air and Waste Management Division, U.S. EPA Region 7, to John Mitchell, Director, Kansas Dept. Envt'l Health (April 2, 2010) (regarding proposed Sunflower Electric Company's Holcomb 2 facility). In addition EPA Region 4 recently commented on a draft major modification permit for the J.K. Smith facility in Kentucky that: "On January 22, 2010, EPA signed into law a new National Ambient Air Quality Standard (NAAQS) for nitrogen dioxide (NO2). The new standard is a 1-hour standard set at the level of 100 parts per billion (ppb). The effective date of the new NAAQS will be April 12, 2010. *If the final PSD permit for J.K. Smith has not been issued by the time the new NAAQS is effective, the Division will need to include the appropriate air quality analysis before a final PSD permit is issued*." (emphasis added). Available at http://www.air.ky.gov/NR/rdonlyres/391526C2-4F06-4E8C-9D6F-217B3C9DEB25/0/AttachmentsAD.pdf.

Thank you for your attention to this important matter. If you have any questions, please feel free to contact me at (510) 550-6725.

Sincerely,

Paul Cort

cc: Jared Blumenfeld, Regional Administrator, EPA
Debbie Jordan, Air Division Director, EPA

EXHIBIT 4

EARTHJUSTICE

ALASKA CALIFORNIA FLORIDA MID-PACIFIC NORTHEAST NORTHERN ROCKIES
NORTHWEST ROCKY MOUNTAIN WASHINGTON, DC INTERNATIONAL

VIA ELECTRONIC MAIL

April 12, 2011

Ms. Shirley Rivera
U.S. EPA Region 9 (AIR-3)
75 Hawthorne Street
Sa Francisco, CA 94105-3901

Re: Supplemental Statement of Basis: PSD Permit Application for Avenal Energy Project (March 2011)

Dear Ms. Rivera:

These comments are submitted on behalf of the Sierra Club, Center for Biological Diversity, and Center on Race, Poverty & the Environment. Commenters urge EPA to deny Avenal Energy Center's ("Avenal") Prevention of Significant Deterioration ("PSD") permit application and abandon the proposed illegal attempt to waive the plain statutory requirements of the Clean Air Act ("CAA"). EPA's Supplemental Statement of Basis seeks to rewrite the rules in order to permit the construction of this major new power plant in one of the most polluted, environmental justice communities in the country. EPA's proposed action would be in plain violation of the Clean Air Act, would undermine clear Congressional intent in adopting the PSD program, has no rational factual basis, ignores multiple other flaws with this application, and would be in violation of multiple procedural requirements.

EPA's tortured legal position is an attempt to resolve the on-going litigation brought by Avenal. Rather than resolve the matter, however, EPA's contortions have made a mess of this permitting process. At this point, there appears little possibility that these issues can be resolved in any meaningful way short of denying the permit outright and allowing Avenal to re-apply if it so desires.

I. EPA does not have authority to waive statutory requirements.

A. EPA's proposal to waive statutory requirements for Avenal would be a plain violation of the Clean Air Act.

EPA has no statutory authority to waive the requirements of section 165. Sources must demonstrate that they "will not cause, or contribute to, air pollution in excess of any . . . national ambient air quality standard," and that they are "subject to the best available control technology for each pollutant subject to regulation . . . ." CAA §§ 165(a)(3) and (4). EPA's proposed

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decision for Avenal plainly waives these statutory requirements. If the permit issues as EPA proposes, Avenal will be able to construct its power plant without demonstrating that it will not cause or contribute to violations of the NO_2 and SO_2 national ambient air quality standards ("NAAQS"). Avenal will also be relieved of its obligation to demonstrate that it is subject to best available control technology for the regulated pollutant CO_2. EPA, however, can point to nothing in the statute that empowers the Agency to waive these statutory requirements.

The plain language of section 165 defines the applicability of these requirements based on when construction commences, not when the permit application is deemed complete. *See* CAA § 165(a) (prohibiting the construction of major emitting facilities that do not comply with the applicable permitting requirements where "construction is commenced after the date of the enactment of this part . . . ."). Indeed, when Congress adopted the PSD program, it understood that certain sources might get caught by changing permit requirements and it offered specific "grandfathering" relief only to those sources on which "construction had commenced" before the enactment of the 1977 Clean Air Act Amendments. *See* CAA § 168(b). There is no authority for EPA to require compliance only with requirements that applied at the time the permit application was deemed complete or on the one-year anniversary of that completion determination. Where, as here, Congress has provided an express grandfathering exemptions and not others, EPA is not free to invent new authority to waive otherwise applicable statutory requirements. *See Andrus v. Glover Constr. Co.*, 446 U.S. 608, 616-17 (1980) ("Where Congress explicitly enumerates certain exceptions to a general prohibition, additional exceptions are not to be implied, in the absence of evidence of a contrary legislative intent."); *see also NRDC v. EPA*, 489 F.3d 1250, 1259 (D.C. Cir. 2007).

EPA's argument appears to be based on some contrived notion of conflicting statutory obligations – *i.e.*, the obligation to issue a permit within one year and the obligation to ensure that the permitting requirements of section 165 are fulfilled. *See* Supplemental Statement of Basis at 10 ("EPA must consider how to reconcile what have now become conflicting statutory obligations . . . ."). This faulty line of reasoning was considered and rejected by the Supreme Court in *General Motors Corp. v. United States*, 496 U.S. 530 (1990). In that case, industry argued that EPA's failure to act on a SIP revision within the statutory period for review precluded EPA from enforcing the existing provisions approved into the SIP. *Id.* at 535. As is the case here, the Court held that delay on the part of EPA does not affect the ability or obligation of EPA to enforce the other requirements of the Act. Unless Congress provided some express authority or direction for EPA to ignore otherwise applicable requirements when EPA misses its deadline for acting on the permit, EPA has no such authority or direction. The Court held that "because the statute does not reveal any congressional intent to bar enforcement of an existing SIP if EPA delays unreasonably in acting on a proposed SIP revision, . . . such an enforcement action is not barred." *Id.* at 540. The Court further noted that "other statutory remedies are available when EPA delays action . . . . Although these statutory remedies may not appear to be so strong a deterrent to EPA delay as would an enforcement bar, these are the remedies that Congress has provided in the statute." *Id* at 541.

Admittedly, EPA has missed the statutory deadline for acting on the Avenal permit. That, however, does not create a conflict with, or affect the obligation to ensure that the new source will not cause or contribute to air pollution problems and will be subject to best available controls. Avenal's remedy for delay is a deadline action under section 304(a)(2); it is not some entitlement to cutting off the obligation to comply with the statute.[1] If the Avenal permit application is inadequate to meet all applicable statutory requirements and EPA is compelled to act on the permit, the permit must be denied. Avenal will of course be free to submit a new application that includes all of the required demonstrations.

The statutory language is plain – a new source cannot cause or contribute to a violation of any NAAQS and must be subject to best available controls for all regulated pollutants. Unless the source can meet these criteria, it may not be built. The statute provides no authority for EPA to waive these requirements except in limited circumstances related to the transition allowed around the 1977 Clean Air Act Amendments. Nor does the failure to comply with the one-year statutory deadline for acting on a permit application bar the obligation to comply with these otherwise applicable statutory requirements. But even if one could ignore this plain language of the statute, EPA's proposed decision for Avenal would still be rejected as an unreasonable interpretation of the statute because it is counter to Congress's clear intent in adopting the PSD program.

B. EPA's proposed interpretation of the Act is unreasonable.

At the outset, EPA's decision is motivated by purposes that have no grounding in the Act (i.e., perceived procedural fairness, streamlined processing of permits, economic development over environmental protection). The purposes of the PSD program are expressly outlined in section 160 of the Act:

> (1) to protect health and welfare from any actual or potential adverse effect which may be reasonably anticipate[d] to occur from air pollution . . . notwithstanding attainment and maintenance of all national ambient air quality standards;
> (2) to preserve, protect, and enhance air quality in national parks . . . and other areas of special . . . value;
> (3) to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources; . . .and
> (5) to assure that any decision to permit increased air pollution . . . is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

[1] Moreover, EPA's proposed grandfathering scheme cannot remedy EPA's failure to meet the one-year deadline in any event; instead, it simply violates other statutory obligations.

CAA § 160. EPA's decision to waive Avenal's obligation to demonstrate that it will not violate any NAAQS cannot be reconciled with any of the stated purposes of the PSD program. It does not protect health or welfare; it does not preserve air quality; it does not insure growth will be consistent with preservation of air resources; and it deliberately precludes careful decisionmaking and informed public participation. There is nothing in the Act that suggests that Congress intended that these purposes could be waived or trumped by some artificial notion of fairness or expedited permitting that would elevate procedure over substance.

What makes EPA's proposal for Avenal so particularly absurd is that EPA long ago rejected similar requests for grandfather exemptions based on these same clearly stated purposes of the PSD program. In the final rulemaking adopting the PSD regulations following the 1977 Clean Air Act Amendments, a commenter urged EPA "to promulgate a grandfather provision that would use the date of complete application instead of the date of permit issuance." 45 Fed. Reg. 52676, 52683 (Aug. 7, 1980). EPA rejected the idea, reasoning that "[u]se of such date, however, might exempt more projects from review. Hence, in EPA's view, it would fail to give adequate expression to the interests behind section 165, especially the goal of protecting air quality." *Id.*

EPA's proposed approach also undermines the fundamental policy choices that Congress made in adopting the PSD program: (1) that it is preferable to prevent air pollution from becoming a problem in the first place; and (2) that controls should be installed when new sources are being constructed rather than as retrofits on existing sources. *See* S. REP. NO. 95-127, at 11 (1977) ("This legislation defines 'significant deterioration' in all clean air areas as a specified amount of additional pollution. . . . This definition is intended to prevent any major decline in air quality currently existing in clean air areas and will provide a margin of safety for the future."); H.R. REP. NO. 94-1175, at 101 (1976) (noting "'an ounce of prevention is worth a pound of cure.' Permitting unrestricted deterioration of air quality up to ambient standards involves trying to cure a condition after it has developed rather than using practical and currently available means to prevent or minimize the condition in the first place."); *id.* at 108 ("Common sense dictates that it is substantially less expensive to prevent air pollution problems – and health problems – before they develop than it is to abate dangerous pollution levels . . . . This approach will allow us to avoid future massive air pollution concentrations which endanger public health and restrict further economic growth, require expensive retrofitting of pollution control technology and produce demands for economically and socially disruptive restrictions on the use of automobiles and on indirect sources.").

EPA's proposed approach for Avenal would defeat both of these policy goals. EPA will allow Avenal to be built even though there has been no demonstration that Avenal will not cause or contribute to a violation of the 1-hour standard for NO_2. Should the plant be built and it is subsequently determined that in fact violations are occurring as a result of the massive NO_x emissions from this plant, the State and the local air district will be responsible for developing a

plan for controlling emissions to meet the standard. Such a plan will require adoption of reasonably available control technology requirements for existing major sources. At that point, Avenal could be required to address these emissions in a much less cost-effective manner through the retrofit of the facility. Commenters recognize that this future is unknown, but this is a key reason why the modeling is required at the outset under section 165 in order to avoid these undesirable potential outcomes that could significantly harm public health and welfare. Waiving these requirements and pretending that there will be no problems undermines the "prevention" purpose of the PSD program and the policy choices made by Congress. It is simply not reasonable to believe that Congress could have intended EPA to adopt the stance of deliberate ignorance (by allowing the source and EPA to ignore foreseeable problems that the Clean Air Act is specifically designed to avoid) that EPA here proposes for Avenal.

C. EPA's attempt to invent equitable authority based on case law is fundamentally flawed.

Having no statutory authority to waive Avenal's requirement to comply with the plain statutory requirements of the Clean Air Act, EPA attempts to invent new "equitable" authority based on shoddy legal analysis of a single federal district court case from 50 years ago. In so doing, EPA attempts to set aside a long line of decisions that have addressed this very issue including decisions by EPA's own Environmental Appeals Board. EPA's analysis is based on a faulty understanding of the fundamental powers of the various branches of government and cannot be sustained.

Courts have consistently recognized that an agency is required to apply the law in effect at the time it renders a decision on a permit application. *See Ziffrin v. United States,* 318 U.S. 73,78 (1943) (where governing statute is amended after applicant submits his permit application but before agency renders its decision, agency is "required to act under the law as it existed" at the time of its decision rather than at the time of application); *see State of Alabama* v. *EPA*, 557 F.2d 1101, 1110 (5th Cir. 1977) (appropriate standards to be applied to a permit are those in effect at time of initial permit issuance). *Ziffrin* involved a challenge to an order issued by the Interstate Commerce Commission denying a company's permit application. *Ziffrin*, 318 U.S. at 74. After the company submitted its application but before the agency issued its decision, Congress amended a provision of the statute governing such permits. *Id.* Noting that the permit "was effective for the future," the Court held that, even where the law changes after an applicant files a permit application, the Commission "was required to act under the law as it existed" when it entered its decision on the application. *Id.* at 78. Otherwise, reasoned the Court, "the administrative body would issue orders contrary to the existing legislation." *Id.* EPA's own Environmental Appeals Board has also recognized this basic rule. *See In re: Dominion Energy Brayton Point, LLC,* 12 E.A.D. 490, 614-616 (EAB 2006); *In re Phelps Dodge Corp.*, 10 E.A.D. 460,478 n. 10 (EAB 2002) (holding that the permit issuer is obligated " to apply the . . . statute and implementing regulations in effect at the time the final permit decision is made" or

the standards "in effect at the time of initial permit issuance.");[2] *see also Shell Gulf of Mexico, Inc.*, OCS Appeal Nos. 10-01 through 10-04, Slip Op. at 9 and 67 n.76 (EAB, Dec. 30, 2010) (permit must meet emission limitation standards in effect when EPA issues its final permit decision under 40 C.F.R. § 124.15(a) upon conclusion of remand proceedings).

The Supplemental Statement of Basis also recognizes this clearly held maxim but then, without any attempt to explain why these cases are wrong or open to being ignored, simply announces that "some other courts have recognized an exception . . . ." Supplemental Statement of Basis at 9. EPA claims that the Latin maxim *actus curiae neminem gravabit*, as applied in the Supreme Court's 1880 decision *Mitchell v. Overman*, 103 U.S. 62 (1880), provides judicial support for this supposed exception. *See* Supplemental Statement of Basis at 10. Translated to "*an act of the court shall prejudice no one*," this Latin maxim stands for the principle that *a court* has the power to enter a judgment retrospectively when the court is responsible for creating a delay in rendering the judgment. *See Mitchell*, 103 U.S. at 64-65. EPA argues that this principle applies equally to courts and administrative agencies and "supports the view that an administrative agency has the power in limited and compelling circumstances to issue a permit decision based on the legal requirements that were applicable at the time the Agency should have taken action." *See* Supplemental Statement of Basis at 10.

EPA's attempt to rely on *Mitchell,* and the principle for which it stands, represents a basic misunderstanding of the inherent powers of the government branches. *Mitchell* speaks only to the powers of the judicial branch. *See Mitchell*, 103 U.S. at 64 (noting that because no statute applies, the case "must . . . be determined by the rules of practice which obtain in courts of justice in virtue of the inherent power they possess"). Article III of the United States Constitution vests the judicial branch with certain inherent powers and duties, including the duty "to say what the law is." *Marbury v. Madison*, 5 U.S. 137, 177 (1803); U.S. Const. art. III, § 1 ("The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish."). It has long been understood that "[c]ertain implied powers must necessarily result to our Courts of justice from the nature of their institution." *United States v. Hudson*, 11 U.S. 32, 34 (1812). Courts are "universally acknowledged to be vested, by their very creation," with certain inherent powers. *See Anderson v. Dunn*, 19 U.S. 204, 227 (1821). These powers are "governed not by rule or statute but by the control necessarily vested in courts to manage their own affairs." *Link v. Wabash R. Co.*, 370 U.S. 626, 630-31 (1962). The concept of *actus curiae neminem gravabit* is itself founded on this inherent judicial authority to administer justice. *See Mitchell*, 103 U.S. at 65.

Administrative agencies, however, have no such inherent equitable powers. Courts have long held that administrative agencies do not possess the same powers or authority as Article III courts. *See N. Pipeline Const. Co. v. Marathon Pipe Line Co.*, 458 U.S. 50, 59 (1982). ("The

[2] The Guidance that EPA now seeks to overturn cites all of this same authority. *See* Memo from Stephen D. Page, Director, OAQPS, EPA, to EPA Regional Air Division Directors (April 1, 2010).

judicial power of the United States must be exercised by courts having the attributes prescribed in Art. III."). An administrative agency is "a creature of statute." *Soriano v. United States*, 494 F.2d 681, 683 (9th Cir. 1974). An agency "has no constitutional or common law existence or authority, but only those authorities conferred upon it by Congress." *Michigan v. E.P.A.*, 268 F.3d 1075, 1081 (D.C. Cir. 2001); *see also Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 208 (1988) ("It is axiomatic that an administrative agency's power to promulgate legislative regulations is limited to the authority delegated by Congress."). Thus, "if there is no statute conferring authority, a federal agency has none." *Michigan*, 268 F.3d at 1081; *see also Louisiana Pub. Serv. Comm'n v. F.C.C.*, 476 U.S. 355, 374-75 (1986) ("An agency may not confer power upon itself.").

EPA ignores this important distinction in its attempt to analogize a court's inherent authority to retroactively render a judgment to an agency's purported authority to waive statutory requirements in violation of existing law. EPA cannot compensate for its lack of statutory authority by relying on a Latin maxim or a judicial opinion discussing inherent judicial powers.

EPA cites only one case for the proposition that *actus curiae neminem gravabit* might be available to an administrative agency. *See* Supplemental Statement of Basis at 10 (citing *Application of Martini*, 184 F.Supp. 395, 401-02 (S.D.N.Y. 1960)). EPA's reliance on this single district court case is weak and misplaced. *Martini* involved an application for naturalization in accordance with Public Law 114. *See id.* at 398. The petitioner submitted his application but, because of a delay by the Immigration and Natural Service ("INS"), was issued a warrant of arrest and ordered deported. *Id.* The INS examiner concluded that naturalization was barred by section 318 of the Immigration and Nationality Act, which automatically denies naturalization to applicants against whom a deportation order has been issued. *Id.* at 398-99. The court ultimately held, however, that section 318 did not apply to applicants under Public Law 114 and that Congress could not have intended the applicant to lose its rights under 114 as a result of agency delay. *Id.* at 399 and 401.

By allowing the applicant to take the necessary steps to attain naturalization, the court in *Martini* in no way permitted the agency to violate any statutory mandates. *See id.* at 399-400. The court reconciled its decision based on an analysis of what Congress intended. Even if EPA did possess powers available only to the judiciary, EPA could make no such claims here. Congress's intent and purposes are clear. A source cannot be built if it fails to apply best available controls for all regulated pollutants and if it fails to demonstrate that it will not cause or contribute to a violation of any NAAQS. Nothing in *Martini* suggests that equitable considerations can be used to frustrate these requirements.

The remaining portion of the opinion, on which EPA's proposal relies, is *dicta* suggesting that the applicant would be entitled to take the oath of allegiance *nunc pro tunc*. This discussion, however, does not stand for the proposition that an agency may remedy its own prejudicial delay by ignoring other statutory requirements. Even in this *dicta* discussing the principle of

actus curiae neminem gravabit, the court never insinuated that an agency has the power to apply this principle or the authority to remedy its own delay. Instead, *the court* applied *actus curiae neminem gravabit* to the agency delay. *See Martini*, 184 F.Supp. at 402; *see also Bradley v. Sch. Bd. of City of Richmond*, 416 U.S. 696, 711 ("a court is to apply the law in effect at the time it renders its decision, unless doing so would result in manifest injustice or there is statutory direction or legislative history to the contrary"). As noted above, administrative agencies have no inherent authority to fashion such equitable relief. Because the Clean Air Act does not give EPA the authority to issue permits "now as if it were then," EPA has no such authority.

EPA's final thin reed of support is based on *dicta* from the Court of Appeals for the Second Circuit, which EPA contends confirms "the viability of the principle applied in the *Martini* case where there has been a significant delay by an administrative agency." *See* Supplemental Statement of Basis at 10 (citing *Fassilis v. Esperdy*, 301 F.2d 429 (2d Cir. 1962)). EPA incorrectly characterizes the earlier cases, which "the Second Circuit case did not question," in the same way it mischaracterizes *Martini*.[3] None of the cases referenced in *Fassilis* recognizes the power of an agency to violate statutory mandates, nor do any of these cases speak to the power of an agency to remedy its own delay. The cases referenced in *Fassilis* simply do not stand for the principle that "an administrative agency has the power . . . to issue a permit decision based on the legal requirements that were applicable at the time the agency should have taken action." *See* Supplemental Statement of Basis at 10. Indeed, as EPA argued in response to Avenal's deadline challenge, the case law, starting with *Ziffrin*, says the exact opposite – that the agency is to comply with the law in effect at the time of the final decision. *See also* Def's Reply to P's Opp. To Def's Cross-Motion for Summ. J., Case No. 1:10-cv-00383 (RJL), at 15 (filed Oct. 22, 2010) ("Thus, *Alabama* supports EPA's conclusion that it *must* apply the law in effect at the time the Region makes a decision on the permit, rather than the law in effect at the time the permit application is deemed complete.") (emphasis added).

EPA fails to provide any judicial support for its purported authority to exempt Avenal's permit application from the statutory requirements of the Clean Air Act. As EPA previously recognized not only in the Guidance it seeks to disavow but also in the pleadings in the ongoing litigation and in sworn declarations submitted in court, it has no choice but to apply the law in effect at the time it renders its final decision on Avenal's permit application. EPA has failed to demonstrate an exception to this requirement because no such exception exists.

[3] Indeed, *Mitchell* and *Application of Martini* are two of the six cases referenced in *Fassilis*. *See Fassilis*, 301 F.2d at 434. All but *Mitchell* are district court opinions involving immigration law. *See id.*

II. Even if EPA had equitable powers, the facts in this case do not justify the exemptions.

A. There were "no substantial delays on the part of the administrative agency which operated to deprive the applicants of any right to which any of them was entitled."

Relying on *Martini* and *Fassilis*, EPA attempts to craft an equitable test which would empower it to waive the statutory requirements of the Clean Air Act where EPA has substantially delayed a permit application decision and allegedly deprived an applicant of a procedural right.[4] *See* Supplemental Statement of Basis at 10. After describing this new and purportedly equitable test, however, the Supplemental Statement of Basis fails to apply it, and never shows that the facts in this case support application of the newly contrived test.

First, the Supplemental Statement of Basis never establishes that "there were substantial delays on the part of the administrative agency . . . ." *See Fassilis*, 301 F.2d at 434. EPA, in briefing supported by declarations made under penalty of perjury in the Avenal deadline litigation, explained:

> As the Jordan Declaration and Joint Stipulation make clear, EPA Region 9 worked tirelessly to review materials submitted by the applicant before and after Region 9 deemed the application complete. *See* Joint Stipulation ¶ 6; Jordan Decl. ¶¶ 9-11. Region 9 also regularly contacted the U.S. Fish and Wildlife Service regarding the status of the Biological Opinion, which identified measures necessary to be incorporated into the permit to ensure the protection of the San Joaquin kit fox, an endangered species under the Endangered Species Act. *Id.*
>
> Additionally, both Region 9 and Headquarters expended significant effort in an attempt to help [Avenal] identify what it needed to do to show compliance with the revised NO_2 NAAQS. *See* Joint Stipulation ¶ 6; Jordan Decl. ¶¶13-17; McCarthy Decl. ¶¶5-7.

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[4] Whether considerations of equity should play any part in PSD permitting is a highly dubious proposition. EPA's mandate under the Clean Air Act is to protect the public's health and welfare from air pollution and fulfill the other objectives specified in CAA section 160. EPA has no discretion to elevate the interests of a single permit applicant over those of the public based on EPA's own notion of "fair play" or "equity." Moreover, at least as to its obligation to comply with BACT for CO2, neither EPA nor Avenal can mount a credible case of surprise. In response to comments seeking grandfathering for precisely the case at issue here – where a permit application has been completed before the date CO2 BACT requirements go into effect – EPA itself twice expressly denied the availability of any grandfathering provisions for CO2. *See* 75 Fed. Reg. 17004, 17018-21 (Apr. 2, 2010); 75 Fed. Reg. 31514, 31527 (June 3, 2010). Avenal has had ample notice of the fact that it must comply with these requirements and could have opted to do so, as EPA explicitly pointed out when it rejected the request for a grandfathering provision. *See* 75 Fed. Reg. at 17021.

Def's Resp. to P's Supp. Br. Regarding Remedy, Case No. 1:10-cv-00383 (RJL), at 18 (filed March 1, 2011). Indeed, the record demonstrates that the bulk of the delay was the result of the section 7 consultation required under the Endangered Species Act. This consultation was not completed until August 9, 2010. *See* Letter from Susan K. Moore, U.S. Fish and Wildlife Service, to Gerardo C. Rios, EPA (Aug. 9, 2010). Thus the delay that held the permitting beyond the promulgation date of the new 1-hour NO_2 NAAQS was not within the control of EPA and there is no basis for treating it in the same way as the delay in *Martini*. *See* Def's Cross-Motion for Summ. J., Case No. 1:10-cv-00383 (RJL) (filed Sept. 17, 2010) ("[W]hile EPA regularly contacted FWS about the status of the Biological Opinion, EPA does not control the timing of FWS's issuance of its Biological Opinions."). This delay alone was enough to push the permit application process beyond the one-year mark EPA purportedly seeks to protect.

Nor can EPA claim that the delay has "operated to deprive the applicants of any right to which any of them was entitled." *See Fassilis*, 301 F.2d at 434. As EPA has itself recognized, Avenal has no right to comply with less protective air quality requirements based on the date of its application. *See* Def's Cross-Motion for Summ. J., Case No. 1:10-cv-00383 (RJL) (filed Sept. 17, 2010) ("[Avenal] has not established that it acquired any rights by virtue of the submission of its permit application or the determination by EPA that its application was complete. In fact, nothing in CAA section 165, or elsewhere in the Act, establishes that [Avenal] is entitled to a decision on its permit application on the basis of the laws and regulations in effect at the time the permit application was submitted or deemed complete, or indeed that [Avenal] is necessarily entitled to have EPA grant, rather than deny, its application."); *see also American Corn Grower Ass'n v. EPA*, 291 F.3d 1, 12 (D.C. Cir. 2002) (agreeing that "nothing in the CAA provides for issuance of a PSD permit as a matter of right"). Avenal's ability to pursue a permit has not been denied in any way.[5] It is still free to submit the required demonstrations and attempt to show how the project will comply with the requirements of the Clean Air Act. *Cf. Martini*, 184 F. Supp. at 400-01 ("The filing of the preliminary form . . . was all that petitioner was able or entitled to do. After that petitioner could only wait to be called to take the oath of allegiance and this was entirely dependent on the speed of the administrative processes of the Naturalization Service."). EPA cannot reasonably claim that the test in *Martini* has been met where no rights have been denied as a result of a delay.

[5] To the contrary, the delay has largely been to Avenal's benefit. EPA through this delay has allowed Avenal to supplement its application to support compliance with the Clean Air Act and the Endangered Species Act. *See, e.g.*, Letter from Gary Rubenstein, Sierra Research, to Gerardo Rios, EPA (May 11, 2010) (outlining Avenal's responses to outstanding BACT and other issues identified by EPA). Had EPA aggressively applied the one-year deadline in section 165(c), EPA would have been forced to deny Avenal's permit application.

B. Modeling of NO_2 was not a problem that could reasonably justify an exemption.

EPA tries to justify the proposed exemptions for Avenal based on "complications" with the implementation of the hourly NO_2 NAAQS. EPA's careful wording of this discussion in the Supplemental Statement of Basis belies this phony justification. EPA first states in general language that "some applicants" seeking PSD permits have experienced unforeseen challenges and that "many permit applicants" need to conduct a cumulative air quality impact assessment where additional refinements in background concentrations "may also be necessary." Supplemental Statement of Basis at 7-8. Without explaining how any of these concerns relate to Avenal, the Supplemental Statement of Basis asserts that [d]ue *in part* to *these complications,*" Avenal's modeling efforts "produced unanticipated delays in the review of the permit application . . . ." *Id.* at 8.

Even if such complications could justify waiving statutory requirements, which they cannot, EPA has not made its case here. While "some applicants" have faced problems, others have been able to model 1-hour NO_2 concentrations in their PSD permit applications including Sunflower Electric Holcomb Station in Kansas, We Energies – Biomass Fueled Cogeneration Facility in Wisconsin, Mississippi Lime Kiln in Illinois, and Detroit Edison in Michigan. The Supplemental Statement of Basis provides no record basis for the conclusion that Avenal could not have completed its modeling demonstration or even what "part" of the delay was due to inherent modeling complications and what "part" was due to foot-dragging and ineptitude on the part of Avenal.

Indeed, before this Supplemental Statement of Basis invented the justification for this new exemption, Assistant Administrator Gina McCarthy and Region 9's Air Division Director Deborah Jordan filed declarations under penalty of perjury claiming "both Region 9 and Headquarters expended significant effort in an attempt to help [Avenal] identify what it needed to do to show compliance with the revised NO_2 NAAQS. *See* Joint Stipulation ¶ 6; Jordan Decl. ¶¶13-17; McCarthy Decl. ¶¶5-7." Def's Resp. to P's Supp. Br. Regarding Remedy, Case No. 1:10-cv-00383 (RJL), at 18 (filed March 1, 2011). EPA's *post hoc* attempt to now excuse the 1-hour NO_2 modeling that it had pushed Avenal to conduct is without record support. To invent new unspecified "complications" as a reason for waiving statutory requirements is not only illegal but disingenuous.

C. Even assuming *arguendo* that Avenal's permit must comply only with emission limitations in effect as of March 18, 2009, Avenal must nonetheless apply BACT to limit carbon dioxide emissions.

Even if EPA were to apply only those emission standards in effect on March 18, 2009 (one year after EPA declared Avenal's permit application to be complete), Avenal's final permit must still demonstrate the use of BACT to limit CO_2 emissions. This is the case because CO_2 was

a pollutant "subject to regulation" through the PSD permitting program as of March 18, 2009 – and indeed since 1993, when CO_2 monitoring and reporting regulations under the Act became effective.

The PSD permitting program requires the use of BACT to limit emissions "*for each pollutant subject to regulation* under [the Act]." CAA §§ 165(a)(4), 169(3) (emphasis added). EPA itself provided a "final" interpretation of the phrase "subject to regulation" as used in sections 165(a)(4) and 169(3) as early as 1978 when it stated that "subject to regulation under this Act" means any pollutant regulated in Subchapter C of Title 40 of the Code of Federal Regulations for any source type. 43 Fed. Reg. 26388, 26397 (June 19, 1978). As the Environmental Appeals Board found in *In re Deseret Power Electric Cooperative*, PSD Appeal No 07-03, Slip Op. at 41, (EAB, Nov. 13, 2008) ("*Deseret")*, this pronouncement does *not* support EPA's later contention that BACT applies only to pollutants that are "'subject to a statutory or regulatory provision that requires actual control of emissions of that pollutant.' Instead, the 1978 Federal Register notice augers in favor of a finding that, in 1978, the Agency interpreted 'subject to regulation under this Act' to mean 'any pollutant regulated in Subchapter C of Title 40 of the Code of Federal Regulations for any source type."

Monitoring and reporting regulations for pollutants are among the regulations in Subchapter C of Title 40 of the Code of Federal Regulations, and in 1993 – long before March 18, 2009 – EPA issued such regulations specifically for CO_2. *See* 58 Fed. Reg. 3590, 3650 (Jan. 11, 1993). These CO_2 regulations are found in 40 C.F.R. Part 75 (*see* 40 C.F.R. §§ 75.1, 75.10(a)(3), 75.57, 75.60-64) and were promulgated pursuant to Section 821 of the Act at the express direction of Congress, s*ee* 42 U.S.C. § 7651k note 3; Pub. L. 101-549; 104 Stat. 2699 (1990). That CO_2 monitoring and reporting regulations render this pollutant "subject to regulation" under the Act is underscored by the fact that Part 75 itself proclaims that a violation of any Part 75 requirement is a violation of the Act. 40 C.F.R. § 75.5(a). Plainly, CO_2 has been "subject to regulation" within the meaning of Sections 165(a)(4) and 169(3) since 1993, and certainly as of March 18, 2009.

EPA bases its contention that CO_2 emission limitations instead did not become effective until January 2, 2011 (and that Avenal therefore can avoid them as a result of the proposed grandfathering) on its rulemaking in *Reconsideration of Interpretation of Regulations That Determine Pollutants Covered by Clean Air Act Permitting Programs; Final Rule* (the "Reconsideration"), 75 Fed. Reg. 17004 (April 2, 2010). In the proposed rulemaking preceding the Reconsideration, EPA had claimed that a pollutant does not become "subject to regulation" through monitoring and reporting regulations, but only through some other regulation under the Act, promulgated by EPA on a nationally applicable basis, that actually controls or restricts the pollutant's emissions. 74 Fed. Reg. 51535 (Oct. 7, 2009) ("Proposed Reconsideration"). EPA then changed its definition once more by adding that, even after the promulgation of its rulemaking limiting CO_2 emissions from passenger vehicles and light duty trucks (the "Vehicle Rule") in April 2010, CO_2 would still not be "subject to regulation" until the Vehicle Rule had "taken effect" by

affecting the "regulated activity" (rather than upon the Vehicle Rule's promulgation or its effective date). 75 Fed. Reg. at 17016. EPA applied this otherwise incomprehensible definition to CO_2 emissions by announcing that the Vehicle Rule would "take effect" only when the regulated activity (allegedly only the sale of compliant vehicles but not their manufacture) would be affected: on January 2, 2011, the first day when yet another regulation permits vehicles built in compliance with the Vehicle Rule the year before to be sold in commerce. *Id.* at 17020.

EPA has crafted its ever more arbitrary statutory interpretations under intense political pressure to abandon or at least further postpone GHG regulations for stationary sources. These strenuous contortions do obvious violence to straightforward statutory language. The Reconsideration's arbitrary and capricious nature is underscored by EPA's own contradictions along the way.[6] It should not now be used to avoid the application of BACT to limit CO_2 emissions from Avenal's planned facility.

III. Even if EPA could ignore NO_2, SO_2, and CO_2 problems, it must still deny Avenal's PSD permit application.

A. Environmental justice concerns justify rejection of the proposed project.

The Supplemental Statement of Basis attempts to address the failure of the previous Statement of Basis to consider environmental justice issues. *See in re: Shell Gulf of Mexico, Inc.*, OCS Appeal Nos. 10-01 through 10-04, Slip Op. at 63 ("The Board has held that environmental justice issues must be considered in connection with the issuance of PSD permits."). The analysis offered in the Supplemental Statement of Basis, however, is inadequate in substance and effect. Even in its incomplete state, the analysis shows that there will be disproportionate impacts on surrounding environmental justice communities. As such, EPA should deny Avenal's PSD permit application.

The Avenal Energy Project is proposed to be built and operated in Avenal, California, just a few miles from the environmental justice communities of Avenal, Huron, and Kettleman City. EPA admits that all three of these communities include "populations of interest" for the purposes of analyzing the impacts of the project on overburdened communities. As EPA explains in its environmental justice analysis, these communities have a very high (more than 85

[6] *See, e.g.,* 74 Fed. Reg. at 51543 (pronouncing that pollutants subject to regulation means "those pollutants subject to a nationwide standard, binding in all states, that EPA promulgates on the basis of its CAA rulemaking authority"); *id.* at 51547 (explaining that CO_2 would become subject to regulation "upon final promulgation of the GHG light duty Vehicle Rule"); 74 Fed Reg. 55292 (Oct. 27, 2009) (adding that "new pollutants become subject to PSD and title V when a rule controlling those pollutants is promulgated (and even before that rule takes effect)"); 75 Fed. Reg. at 55299.

percent) minority population, are highly linguistically isolated, and are predominately low-income. They are also disproportionately impacted by pollution sources.

Even without a new 600-megawatt fossil fuel power plant, these communities are burdened by multiple environmental harms. The San Joaquin Valley is one of the worst-polluted air basins in the nation and suffers from "some of the highest $PM_{2.5}$ levels in the country." Supplemental Statement of Basis at 18. Drinking water in these rural communities is contaminated with high levels of arsenic, benzene and other toxins. Toxic pesticides and other agricultural chemicals applied to surrounding agricultural fields can drift into the homes and yards of local residents, many of whom also work in the fields. Additionally, as EPA points out, Kettleman City is located adjacent to the Interstate 5 freeway, defunct oil and natural gas extraction operations, and the state's largest hazardous waste landfill, which was recently fined $300,000 for violations of its PCB handling permit. Together, these impacts contribute to, among many other harms, higher-than-average asthma prevalence, asthma-related hospitalizations and emergency room visits. In these communities, which are also plagued by high unemployment and lack of access to health care, adding another major source of pollution would be the very definition of environmental injustice.

In its environmental justice analysis, EPA limits its examination of the impacts of the facility's projected emissions to the effect they will have on the applicable NAAQS. Also, though it has decided to grandfather the facility from demonstrating compliance with the newly adopted 1-hour NO_2 standard, EPA does recognize that in promulgating the new standard, the agency found the existing annual NO_2 standard alone was not sufficient to protect public health against adverse respiratory effects associated with short-term NO_2 exposure, and so attempts to examine whether short-term NO_2 exposure from the proposed plant will disproportionately impact local communities. Ultimately, EPA determines that because the modeled results for the facility's projected air emissions are well below the actual NAAQS for these pollutants, there will be no adverse impacts and it has satisfied its environmental justice obligations under Executive Order 12898. For the reasons set out below, commenters disagree and call upon EPA to do a real analysis of how pollution from the proposed plant would impact the health and well-being of the neighboring communities that are already environmentally-overburdened.

For the analysis of 1-hour NO_2 impacts, EPA identifies limited data indicating that background levels of 1-hour NO_2 concentrations "in the general area" are not disproportionately high as compared with the rest of the state. This information comes from monitors in Hanford (50 ppb) and Visalia (61 ppb), approximately 28 and 46 miles away (respectively) from the area where the plant will be located. EPA also examines an assessment conducted by the San Joaquin Valley Air Pollution Control District, which shows the maximum hourly NO_2 impact expected from the plant would be 44 ppb.

Even assuming the concentrations of NO_2 in Hanford or Visalia adequately represent the background NO_2 levels in the project vicinity, the added burden of the project would exceed or

very nearly exceed the new 1-hour NO_2 standard adopted by EPA. However, it is not reasonable to assume that these background levels are representative of levels in the project vicinity. As EPA points out, the largest source of NO_2 is mobile sources and "NO_2 concentrations on or near major roads are appreciably higher than those measured at monitors in the current network….and near-roadway concentrations have been measured to be approximately 30 to 100% higher than those measure away from major roads." Supplemental Statement of Basis at 19. Kettleman City is directly adjacent to Interstate 5 – one of the State's main commerce freeways – and therefore should reasonably be expected to have background levels of NO_2 of at least 65 ppb (30 percent greater than Hanford's 50 ppb background level). In a "worst case" scenario, background levels in Kettleman City could be 130 ppb (100 percent greater than Visalia's 65 ppb). Based on even the very limited information EPA provides in its environmental justice analysis, there is no reasonable basis for believing that Kettleman City or the other communities in the vicinity of the proposed project would not be disproportionately impacted by NO_2 emissions from the plant.

For its analysis of the other NAAQS, EPA's environmental justice analysis misses the point entirely as it fails to take into account not only the local impacts of increased air emissions, but also how these added emissions will contribute to the cumulative impact of all the environmental and social stressors with which these communities are already burdened. Most notably, the analysis admits that it does not address whether there will be disproportionate impacts on the surrounding communities due to elevated ozone and fine particulate matter impacts. Instead of providing any of its own analysis, EPA "presents a summary of the State's environmental justice analysis," which the Supplemental Statement of Basis notes is the subject of a civil rights investigation. Supplemental Statement of Basis at 14. Greenaction for Health and Environmental Justice has filed a Title VI Civil Rights Act complaint alleging, *inter alia*, "that operation of the proposed Avenal power plant will result in adverse health impacts on the residents of color of Avenal and Kettleman City, who are already impacted by multiple sources of pollution." *Id.* at 14. EPA's Office of Civil Rights has accepted this allegation for investigation. *Id.* Relying on this flawed State analysis as the basis for EPA's environmental justice analysis is unreasonable on its face.

Even setting aside the fact that this analysis is clouded by the pending investigation, EPA's reliance on the State's analysis is misplaced because of its obvious flaws. For example, the State claims that $PM_{2.5}$ impacts will be insignificant compared to applicable ambient air quality standards and current levels. *See* Supplemental Statement of Basis at 28. Commenters have already advised EPA that this modeling analysis is flawed because the modeling results do not account for the contribution of secondary $PM_{2.5}$ formation as a result of the significant NO_x emissions from the source. There is no basis for refusing to include secondarily formed $PM_{2.5}$ in the assessment of ambient impacts. As EPA explained in its rulemaking proposing the increments of deterioration that it will allow, the Agency compared "the marginal pollutant concentration increases allowed by the safe harbor increment levels against the pollutant concentrations at which various environmental responses occur." 72 Fed. Reg. at 54133. In

determining the scope of environmental effects, EPA "evaluated the health and welfare effects of both direct $PM_{2.5}$ and secondarily-formed $PM_{2.5}$ that may result from the transformation of other pollutants such as SO_2 and NO_x." *Id.* at 54127. It would be irrational to suggest that notwithstanding the fact that the increments are based on an assessment of the impacts of both direct and secondary $PM_{2.5}$, the modeling to determine if such increments are violated or significantly impacted need only consider the directly emitted $PM_{2.5}$.

This approach is especially irrational here, where the District has already acknowledged that secondary $PM_{2.5}$ in the form of ammonium nitrate is a major component of ambient $PM_{2.5}$ concentrations in the San Joaquin Valley. *See* San Joaquin Valley Unified Air Pollution Control District, "2008 $PM_{2.5}$ Plan," at 3-7 (April 30, 2008) (adding that "ammonium nitrate formation is limited by the availability of nitric acid"); *see also id.* at 6-6 (noting District's strategy is to "giv[e] priority to NO_x controls."). The analysis of Avenal's impact on ambient $PM_{2.5}$ concentrations simply cannot ignore the addition of 144 tons per year of NO_x emissions in assessing whether the contribution to $PM_{2.5}$ nonattainment in the Valley will be significant.

The State's environmental justice analysis of particulate matter impacts is also flawed in that it "relies[s] on compliance with outdated science . . . [and] fail[s] to account for the updated scientific and technical reviews . . . ." *In re: Shell Gulf of Mexico, Inc.*, OCS Appeal Nos. 10-01 through 10-04, Slip Op. at 79-80. Both the $PM_{2.5}$ and the PM_{10} standards are undergoing review and have been called into question by EPA's Clean Air Scientific Advisory Committee ("CASAC"). *See* CASAC Review of *Policy Assessment for the Review of the PM NAAQS – Second External Review Draft* (June 2010), Letter from Jonathan M. Samet, CASAC, to Lisa Jackson (dated Sept. 10, 2010) (available at yosemite.epa.gov/sab/sabproduct.nsf/264cb1227d55e02c85257402007446a4/CCF9F4C0500C500F8525779D0073C593/$File/EPA-CASAC-10-015-unsigned.pdf). To the State's credit, it does look at a lower annual $PM_{2.5}$ standard of 12 μg/m3, but it continues to rely on the 24-hour standard of 35 μg/m3, which CASAC has recommended tightening in conjunction with the annual standard. *See id.* at ii. More significantly, EPA's analysis includes virtually no discussion of disproportionate PM_{10} health impacts, including impacts resulting from the secondary formation due to the large NO_x emissions from the proposed plant, based on new available health data. *See* Supplemental Statement of Basis at 26. "CASAC supports a lower level [for the 24-hour PM_{10} standard] to provide enhanced protection, somewhere in the range of 75 – 65 μg/m3." *See* Letter from Jonathan M. Samet at ii (explaining that current standard of 150 μg/m3 translated into a 98th percentile form equates to a level of 75 to 80 μg/m3).

At a minimum, EPA needs to redo its defective and incomplete environmental justice analysis. Even with the flawed analysis prepared to date, however, it is clear that the Avenal project will have disproportionate health impacts on surrounding environmental justice communities. As such, EPA should deny Avenal's application for a PSD permit. *See* CAA § 160(1) (noting purpose of PSD program is to protect public health and welfare . . . notwithstanding attainment and maintenance of all national ambient air quality standards).

B. Avenal has failed to demonstrate that it will not contribute to violations of the ozone and $PM_{2.5}$ NAAQS in the Valley.

Clean Air Act section 165(a)(3) provides that a PSD permit may not be issued unless the facility proponent "*demonstrates* . . . that emissions from the construction or operation of such facility will not cause, or contribute to, air pollution in excess of *any* . . . national ambient air quality standard in any air quality control region . . . ." (emphasis added); *see also* 40 CFR § 52.21(k)(1). The federal regulations require that the application for a PSD permit contain an analysis of ambient air quality in the area that the major source would affect for each pollutant emitted from the source in significant amounts. *Id.* § 52.21(m)(1)(a). The thresholds for determining whether emissions will be "significant" are provided in section 52.21(b)(23)(i) of the federal regulations. The threshold for $PM_{2.5}$ emissions is 10 tons per year and for NO_x, as a precursor to both $PM_{2.5}$ and ozone, is 40 tons per year. *Id.* § 52.21(b)(23)(i).

The proposed Avenal project will result in emissions of 80.7 tons per year of $PM_{2.5}$ and 144.3 tons per year of NO_x. *See* "Avenal Energy Application for Certification," at 6.2-45, Table 6.2-24. Yet nowhere in the proposed PSD permit nor the facility's air quality analysis of its Application for Certification, is there any analysis of the impact the facility will have on ambient concentrations of ozone or $PM_{2.5}$.

Commenters are aware of the exemption provided in 40 CFR 52.21(i)(2), which waives regulatory source impact analysis and air quality analysis requirements with respect to pollutants for which the area is designated nonattainment. This exemption, however, does not excuse the failures here. While the regulatory requirements as to how to make the required demonstration may be waived, this exemption cannot waive the statutory requirement to make the demonstration at all. Such an application of this regulatory requirement would be a clear violation of the statute. Thus, even if, as a result of this exemption, EPA's rules are silent as to *how* this demonstration must be made, the Act still requires a demonstration that the source will not cause or contribute to a violation of "any" NAAQS. Moreover, with respect to the regulatory requirements, EPA has only just designated the San Joaquin Valley with respect to the 24-hour 35 $\mu g/m^3$ standard for $PM_{2.5}$ and has not yet designated the Valley for the 75 parts per billion ("ppb") standard for ozone. Thus to the extent there is any rationale behind the regulatory exemption, it is not present here because the area does not have plans for meeting these new standards that will assure that any growth in emissions is consistent with attainment. Nor, as will be discussed in more detail below, can EPA rely on the San Joaquin Valley Unified Air Pollution Control District's dysfunctional nonattainment new source review program to fully offset these emissions. EPA cannot ignore the air pollution disaster in the San Joaquin Valley and approve this major new source without ensuring that it will not exacerbate the problems in the area.

With respect to $PM_{2.5}$ impacts, as commenters noted above, the modeling analysis is insufficient in that it fails to address secondary formation of fine particulate matter. The analysis of Avenal's impact on ambient $PM_{2.5}$ concentrations simply cannot ignore the addition of 144 tons per year of NO_x emissions in assessing whether the contribution to $PM_{2.5}$ nonattainment in the Valley will be significant.

For ozone, there is no discussion of ambient impacts whatsoever. Avenal's air quality analysis reports that 3-year average 8-hour ozone concentrations measured at the nearby Hanford monitoring site consistently exceed the 75 ppb standard. *See* "Avenal Energy Application for Certification" at 6.2-8 (reporting average concentrations of 95 ppb for 2004, 88 ppb for 2005 and 86 ppb for 2006). The analysis states that "ambient air quality measurements recorded at the monitoring stations are believed to represent area-wide ambient conditions rather than the localized impacts of any particular facility." *Id.* at 6.2-7. The analysis includes no other relevant discussion as to how the significant NO_x emissions from the Avenal plant will or will not contribute to the ozone problem in the area. EPA's proposed Statement of Basis offers nothing more. The analysis does not claim that the impact will be insignificant or completely offset; the analysis is simply silent with respect to ozone impacts. Commenters cannot meaningfully comment on how this proposed project fulfills the requirement of section 165(a)(3) when there is no demonstration to review.

Neither EPA nor Avenal has suggested that the impacts on ambient concentrations of $PM_{2.5}$ and ozone will be offset, nor could they based on the current record. As noted above, the impacts on ambient ozone have never been assessed and the analysis of the impacts on ambient $PM_{2.5}$ concentrations is defective. More importantly, neither EPA nor Avenal has provided any record for showing how the offsets obtained for this project will compensate for the impacts of this source. To the contrary, based on the record to date, it is clear that the emission reduction credits described by Avenal will provide no compensating benefit whatsoever to offset the new ambient impacts the Avenal plant will create.

The first problem with relying of the District's nonattainment new source review program to satisfy the requirement of section 165(a)(3) is that the nonattainment new source review program and the PSD program are fundamentally different when it comes to offsets. The nonattainment new source review program looks at the balancing of emissions increases and decreases as a kind of accounting problem based on tons of emissions. *See* CAA § 173(a) (focusing on "total tonnage" of emissions). This is particularly true for the District's new source review program. EPA has recognized that the District's program fails to comply with the requirements of the Clean Air Act by, among other things, allowing sources to offset only to preset thresholds rather than down to zero, failing to apply the ratios specified in the Act, and refusing to ensure that emission reductions are surplus at the time of use. *See* 66 Fed. Reg. 37587 (July 19, 2001). EPA has waived these statutory violations by allowing the District to demonstrate overall equivalency of the District's offset requirements to the requirements of the Clean Air Act. *See* 69 Fed. Reg. 27837 (May 17. 2004). This accounting approach has no relation

to what is actually happening in the ambient air. Moreover, while the equivalency approach relied upon in the District might have been theoretically viable at the time EPA approved it, the approach has become bankrupt with the District's bump up to extreme nonattainment for ozone in 2004. Since then, the federal rules should have been requiring offsets for sources with NO_x or VOC emissions over 10 tons per year, but the District has not been applying these lower thresholds in its annual equivalency demonstration. At this point, there is no rational basis for believing that the District is achieving all of the emission reductions needed even to meet the accounting requirement of Clean Air Act section 173(a).

The requirements in section 165(a)(3) and 51.165(b)(3), by contrast, focus on "air pollution" and the "impact" on "air quality" as opposed to merely the tons of emissions. This difference is often used to the advantage of sources seeking a PSD permit by allowing them to claim that their significant impacts can be mitigated through less than complete offset of their emissions. Here, however, because the District allows sources to use offsets that are worthless in their benefit to air quality, the requirements of section 165(a)(3) cannot be met through the bankrupt accounting games approved for the nonattainment new source review program in the San Joaquin Valley.

In its original Final Determination of Compliance ("FDOC") document for Avenal, the District calculated what it asserts are acceptable offset targets for the project's NO_x, VOC, and PM_{10} emissions. The District established these offset targets as the project's total emissions, minus any emissions from exempt equipment, minus an 'offset threshold' for each pollutant, times a distance offset ratio of 1.5:1 (because the reductions used as offsets took place more than 15 miles from the Avenal project). Additionally, the District allowed the substitution of SO_x emission reduction credits to offset PM-10 emissions at a 1:1 ratio.

As noted above, this calculation of the emission reduction credits ("ERCs") needed to offset the tons of emission increases that will be generated by Avenal includes no analysis of the actual impact the proposed project will have on air quality or the mitigation of that impact that will be provided by the ERCs. As explained by the CEC in a letter dated August 12, 2008, the applicant's proposed mitigation includes the use of ERCs issued between 1991 and 2002. While the District may allow the use of these very old ERCs to satisfy the accounting requirements of its defective nonattainment new source review program, for PSD purposes, the reductions represented by these ERCs are already reflected in the current ambient air quality concentrations used to assess Avenal's projected impact. Neither EPA nor the District has demonstrated how emissions reductions that are already reflected in current air quality levels, which continue to violate the national standards, can be used to show that the new emissions from the proposed project will not cause or contribute to a violation of any NAAQS in the project impact area.

In addition, as the District has pointed out, the reductions being used as offsets took place well outside the proposed project site. In fact, as far as commenters can tell[7], a majority of the reductions took place more than 75 miles away from the proposed project location. Without performing modeling or other technical analysis to show how these distant reductions can possibly offset the impact of the new emissions on the project impact area, EPA cannot conclude that the ERCs identified by the applicant adequately prevent the project from causing or contributing to a violation of any NAAQS.

Finally, even if the temporal and spatial defects of these offsets could be ignored, the emission reductions suffer from the further defect that the District relies on inter-pollutant trading that has no rational basis. The District has allowed Avenal to comply with the nonattainment new source review requirements for $PM_{2.5}$ offsets by substituting SO_x emission reductions on a 1 to 1 basis (this ratio becomes 1.5 to 1 when factoring in the distance offset ratio). This ratio is entirely unsupported by the record. EPA, in its new source review rulemaking for $PM_{2.5}$, determined a nationwide preferred ratio of 40 to 1 for trading SO_x emission reductions for $PM_{2.5}$ emission reductions, unless a demonstration can be made, substantiated "by modeling and/or other technical demonstrations of the net air quality benefit for $PM_{2.5}$ ambient concentrations," that another ratio is locally appropriate. 73 Fed. Reg. 28321, 28339 (May 16, 2008). According to EPA, these local determinations must address a number of local factors, including but not limited to: 1) the relative magnitude of emissions of direct $PM_{2.5}$ and precursor gases within the geographic area, 2) the relative contribution to local $PM_{2.5}$ nonattainment of directly emitted $PM_{2.5}$ and individual precursors from the various sources or source categories under consideration as part of a potential inter-pollutant trade, and 3) the meteorological conditions and topography of the area, which result in different source-receptor relationships across pollutants within the local area. *Id*. The District has never made any such demonstration to justify the lower ratio applied here.[8] Given the total absence of analysis supporting a 1 to 1 benefit ratio for SO_x emission reductions, EPA simply cannot reasonably rely on the SO_x ERCs required by the District to meet the requirements 165(a)(3) for $PM_{2.5}$.

In the end, the analysis conducted to date on the ambient impacts of the Avenal plant is insufficient to "demonstrate[]" that emissions will not cause or contribute to air pollution in excess of the ozone or $PM_{2.5}$ NAAQS. *See* CAA § 165(a)(3). Should EPA and Avenal persist in

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[7] Despite an August 12, 2008 request by the CEC, a full description of the original emission reduction site and date, and the method of reduction for the ERCs was never provided by the applicant or the District. In fact, a number of the ERCs listed in the FDOC do not even appear on the District's Emission Reduction Credits Registry.

[8] As EPA pointed out in comments on another San Joaquin Valley power plant project, the District's "methodology" for determining appropriate inter-pollutant ratios has never been approved by EPA. *See* EPA's May 21, 2009 Comments on Project Number N-1083212 ("the underlying methodology to determine the appropriate ratios for inter-pollutant offsets has not been approved by EPA . . . It is important to note that modeling is a critical component of an inter-pollutant offset analysis . . . .").

trying to claim that this new major source of pollution will contribute only insignificantly to ongoing violations of the ozone and $PM_{2.5}$ NAAQS, EPA must work with Avenal to prepare an adequate analysis and circulate that analysis for public review and comment. In the meantime, EPA should deny Avenal's PSD application for failing to comply with Clean Air Act 165(a)(3) and 40 C.F.R. section 52.21(k)(1).

C. EPA should reject Avenal's PSD permit application because less harmful alternatives to the project are available.

The foregoing descriptions of the failures of Avenal and EPA to adequately assess the impacts of the proposed project highlight the need to for EPA to explore alternatives to the proposed project. Section 165(a)(2) provides that the permitting decision should consider "the air quality impact of [the] source, alternatives thereto, control technology requirements, and other appropriate considerations . . . ." *See also* Gregory B. Foote, "Considering Alternatives: The Case for Limiting CO_2 Emissions From New Power Plants Through New Source Review," 34 Envtl. Law Rep. 10642, 10650 (2004) ("By expressly providing citizens with the right to call upon the permitting authority to consider 'alternatives' to the proposed source, Congress clearly intended that the permitting authority could conclude that a source different from the one proposed by the applicant – or no new source at all – should be permitted."). The analysis of BACT also requires consideration of alternatives based on "energy, environmental, and economic impacts." *See* CAA § 169(3). As Congress explained:

> [W]hen an analysis of energy, economics, or environmental considerations indicates that the impact of a major facility could alter the character of that community, then the [permitting agency] could, after considering those impacts, reject the application or condition it within the desires of the State or local community.

S. REP. NO. 95-127, at 31 (1977).

Not considered or mentioned in any of EPA's analysis is the fact that Avenal has applied for and received a permit from the San Joaquin Valley Air District that would limit emissions so as to avoid the necessity for a major source PSD permit. *See* SJVUAPCD, "Final Determination of Compliance (FDOC), Project Number C-1100751 – Avenal Power Center LLC (08-AFC-01)" (Dec. 17, 2010) (reducing NO_x emissions from 288,618 lb/year to 198,840 lb/year and CO emissions from 1,205,418 lb/year to 197, 928 lb/year). In other words, a specific , feasible alternative to the proposed project has been identified by Avenal itself. EPA cannot claim that it has fully complied with sections 160(1), 165(a)(2) or 169(3) when it has failed to consider this available alternative that would lower total emissions. EPA should use its authority to consider the environmental justice and other impacts, and to protect public health and welfare, as a basis for rejecting Avenal's PSD application since there is a demonstrated alternative that will lower the emissions from this project.

IV. EPA's proposed decision suffers from various procedural defects.

A. The Regional Administrator's responsibility for making the permitting decision cannot be redelegated without rulemaking.

On March 1, 2011, Administrator Jackson issued a memo temporarily delegating permitting authority to the Assistant Administrator for Air and Radiation. While the Administrator may have the ability to modify the Headquarters Delegation Manual through the issuance of such a memorandum, she cannot rewrite the applicable regulations governing issuance of such PSD permits without conducting new notice and comment rulemaking. Currently 40 C.F.R. § 124.15 provides "After the close of the public comment period under §124.10 on a draft permit, *the Regional Administrator* shall issue a final permit decision . . . ." (emphasis added); *see also* 40 CFR § 124.19(f)(2) (reiterating that the "final permit decision shall be issued by the Regional Administrator . . . ."). Unlike other regulatory provisions that provide for "EPA" action, which is then subject to definition through the delegation manual, here the regulations expressly provide that it is the Regional Administrator who will issue the permit. The plain text of the regulations cannot be changed, and indeed was not even purported to be changed, by the Administrator's March 1, 2011 memorandum. Without new rulemaking, the Regional Administrator must issue the final permit decision. *See United States v. Nixon*, 418 U.S. 683, 695-96 (1974) ("So long as [a] regulation is extant it has the force of law"); *see also Am. Fed'n of Gov't Employees, AFL-CIO, Local 3090 v. Fed. Labor Relations Auth.*, 777 F.2d 751, 759 (D.C. Cir. 1985) (holding that "unless and until [an agency] amends or repeals a valid legislative rule or regulation, [the] agency is bound by such a rule or regulation").

B. The proposed revisions of statutory interpretations require rulemaking governing implementation of the NAAQS and PSD program, neither of which can be done through a permitting action approved by the Assistant Administrator.

The Supplemental Statement of Basis acknowledges that it seeks to reverse various EPA interpretations of the Clean Air Act and EPA's regulations announced in prior rulemakings and guidance documents. *See* Supplemental Statement of Basis at 11. As noted above, these requirements derive from the plain language of the statute and therefore cannot be changed by EPA at all. Even assuming these requirements were subject to reinterpretation, EPA's attempt to do so in the context of this permitting decision is improper and illegal.

EPA acknowledges that public comment is necessary to reverse its prior pronouncements, but EPA asserts that all that is required is an opportunity for public comment on the proposed Avenal permit decision. This is not the rule from *Paralyzed Veterans of America v. D.C. Arena L.P.*, 117 F.3d 579 (D.C. Cir. 1997). The court there explained, "Once an agency gives its regulations an interpretation, it can only change that interpretation as it would modify

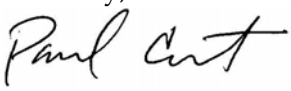
the regulation itself: through notice and comment rulemaking." *Id.* at 586; *see also id.* ("To allow an agency to make a fundamental change in its interpretation of a substantive regulation without notice and comment obviously would undermine those APA requirements. That is surely why the Supreme Court has noted (in dicta) that APA rulemaking is required where an interpretation 'adopts a new position inconsistent with . . . existing regulations.' *Shalala v. Guernsey Memorial Hosp.*, 514 U.S. 87, 100 (1995)."). EPA's circulation of a Supplemental Statement of Basis does not satisfy APA rulemaking requirements and is thus insufficient to revise the previously announced interpretations requiring compliance with NO_2 and SO_2 NAAQS and the application of BACT for greenhouse gas emissions.

EPA's proposed policy change is not based on the facts before it in this permit, where limited notice might be sufficient. The authority that EPA claims it possesses to waive statutory requirements is a legal conclusion, not a factual determination limited to this permit. Like the adjudication in *Shell Offshore Inc. v. Babbitt*, 238 F.3d 622 (5th Cir. 2001), where the court found the agency's decision "was the result of a departure from previous [agency] practice" and where the agency "did not apply a general regulation to the specific facts of [the] case" but instead "established a new policy" and then applied that to the case before it and others, EPA here has acknowledged that this new grandfather interpretation will apply to many facilities. *See id.* at 628; *see also* "EPA Plan to 'Grandfather' Key Air Permit Raises Major Legal, Policy Queries," InsideEPA.Com (March 7, 2011) (available at: http://insideepa.com/Inside-EPA/Inside-EPA-03/04/2011/epa-plan-to-grandfather-key-air-permit-raises-major-legal-policy-queries/menu-id-153.html) (reporting that "[Assistant Administrator] McCarthy noted EPA would apply the policy to other permits in similar situations but has not yet identified them, except to say it expects it will affect 10 to 20 permits nationwide."). These are national policies that EPA is attempting to reverse. As a result, the APA provides that notice of such rulemakings "shall be published in the Federal Register . . . ." 5 U.S.C. § 553(b). Moreover, such rulemaking cannot be conducted by either the Regional Administrator or the Assistant Administrator for the Office of Air and Radiation. These agency officials have no such delegated authority to adopt or revise national rulemakings governing the implementation of the PSD program or the new NAAQS. Until national rulemaking is completed in accordance with the APA, EPA cannot apply its desired new exemptions in this permitting decision.

V. Conclusion

EPA should have denied the Avenal PSD permit application long ago. It is the wrong project in the wrong place. Rather than do the damage to the Clean Air Act that EPA has proposed, commenters urge EPA to end this unfortunate and unseemly process by finally denying Avenal's PSD permit application.

Sincerely,



Paul Cort
Staff Attorney

EXHIBIT 5

US Environmental Protection Agency
May 2011

Responses to Public Comments

on the Proposed Prevention of Significant Deterioration Permit for the Avenal Energy Project

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APPENDIX A **111**

I. Introduction

A. Overview

On June 16, 2009, the United States Environmental Protection Agency Region 9 (EPA Region 9) proposed to issue a Prevention of Significant Deterioration (PSD) permit to Avenal Power Center, LLC ("Avenal", "APC" or "Applicant") that would authorize construction and operation of a 600 megawatt natural gas-fueled combined cycle power plant known as the Avenal Energy Project ("the Project"), in Kings County, California. After carefully considering public input and the potential impact of the Project on air quality in the affected community, EPA is issuing a Clean Air Act (CAA) PSD permit for it, which authorizes construction and operation of the Project on the condition that the source may not emit air pollutants in excess of the levels specified in the permit and that the source complies with other terms of the permit. The Project is a new, state-of-the-art, natural gas-fired electric generating facility that will apply modern pollution control technology to achieve the lowest levels of air pollutant emissions achievable in this instance. The applicant has satisfied the applicable standards in the CAA and EPA regulations for obtaining this permit.[1] Although the area where the Project will be located is subject to a number of environmental burdens, the available information does not suggest that the relatively low levels of emissions from this source will exacerbate these existing burdens to a degree that should affect issuance of this permit. On balance, considering the full scope of actions that EPA and other agencies are actively taking to reduce more significant environmental hazards in the San Joaquin Valley and affected communities, EPA's judgment is that construction and operation of the Project should be authorized under the laws that EPA is responsible for administering in this instance.

As required by the CAA, the conditions in this PSD permit are applicable to a subset of the air pollutants that will be emitted from the Project. These are the pollutants that the Project has the potential to emit above designated levels for which the local area is either meeting the National Ambient Air Quality Standards (NAAQS) or is unclassifiable with respect to these standards. The conditions in the permit are based on the use of Best Available Control Technology (BACT) to limit emissions of carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (PM), and PM equal to or less than 10 micrometers in diameter (PM_{10}) to the greatest extent feasible. The available information indicates that with this technology installed, the Project will have a relatively minor effect on air quality. The Project's impacts are well below (in all cases, less than 6 percent of) the applicable NAAQS for the pollutants addressed in the PSD permit. Consistent with the provisions of the CAA, EPA's permit does not contain limitations on the air pollutants (including precursors to the formation of these pollutants) for which the relevant area is not attaining the NAAQS. Emissions of these nonattainment pollutants – ozone and PM equal to or less than 2.5 micrometers in diameter ("fine particulate matter" or "$PM_{2.5}$") – are regulated under the Nonattainment New Source Review (NNSR) permitting program administered by the San Joaquin Valley Air Pollution Control District (the District).

[1] Because we are grandfathering the Project from requirements stemming from the 1-hour NO_2 and SO_2 NAAQS, when we use the term "applicable NAAQS" and "applicable pollutants" or "pollutants regulated under the permit" we mean to exclude the 1-hour NO_2 and SO_2 NAAQS.

EPA's review of this permit application has continued for two years beyond the one-year deadline established in the CAA for EPA to grant or deny the application. In light of this and other factors, EPA has determined that is appropriate and equitable under the circumstances to exercise available discretion under the CAA to issue this permit without requiring this applicant to meet recently-adopted requirements that have taken effect during the lengthy period of time that EPA has been reviewing this application.

EPA has listened carefully to the concerns of nearby residents, including those of the nearby communities of Avenal, Huron and Kettleman City who are understandably worried that adding an additional source of pollution in this area would make existing environmental problems worse. The San Joaquin Valley has some of the highest ozone and $PM_{2.5}$ levels in the country. Furthermore, local residents are concerned about health risks from drinking water contamination, exposure to pesticides and other agricultural chemicals, air pollutant emissions from vehicles on the I-5 freeway, the effects of defunct oil and gas extraction operations, the proximity to a hazardous waste disposal facility and composting and the application of biosolids sludge from Los Angeles. There are reports of higher-than-average asthma rates, birth defects and miscarriages among local residents. EPA has met with community representatives regarding a number of concerns, outside the context of EPA's PSD permitting action for the Project, and to help protect the community a number of EPA Program Offices have focused resources on following up appropriately on the community's concerns.

Many residents and environmental organizations have urged EPA to ensure that we take action in the context of this permit application to alleviate these environmental conditions and to assure them that the construction and operation of the Project will not make matters worse. We have also heard that EPA's decision to grandfather this permit application from certain newly enacted requirements has undermined the confidence of some citizens in EPA's commitment to doing our job to protect public health and welfare in the affected communities. At the same time, EPA has also heard the concerns expressed by the permit applicant about EPA's failure to complete action on this application in a timely manner, as required by the CAA. The applicant has emphasized the impact of this delay on its proposal to supply electrical power and the inequities of extending this delay by requiring the applicant to address a series of additional requirements that were not applicable at the time the permit application was completed and when EPA initially proposed to issue this permit.

EPA is also sensitive to the fact that the many residents in the communities adjacent to the Project are minorities and have low incomes. These communities have high unemployment rates and many residents lack access to healthcare. Executive Order 12898 provides that "[t]o the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States." Section 1-101 of Exec. Order 12898, 59 FR 7629 (Feb. 16, 1994). EPA has recognized the need to consider EJ in the PSD permitting process and to ensure public participation, and has further recognized an obligation to respond to public comments. Thus, the public comments, including comments on "alternatives" and "other appropriate considerations" under section

165(a)(2) of the CAA may provide EPA with a basis for incorporating environmental justice considerations into PSD permitting decisions in appropriate circumstances**.** Based on the Executive Order and prior actions by EPA applying this order, EPA has considered environmental justice issues in connection with the issuance of this PSD permit. Since this Executive Order references all of the programs, policies and activities of each federal agency to which it applies, EPA has considered how best to respond to the environmental justice concerns raised in public comments within the larger context of all the actions EPA is taking to reduce actual or potential environmental hazards in the communities potentially affected by emissions from the Project. EPA also believes it is appropriate to consider actions being taken by State and local government agencies to address these concerns.

Considering the environmental conditions of greatest significance in this region and the range of actions EPA and State and local government agencies are currently taking to reduce the risks these conditions pose to health and welfare in these communities, EPA's judgment is that, despite some uncertainties and limitations in available data, emissions from this source are unlikely to add significant environmental harm to the local communities. EPA has not identified disproportionate adverse impacts on minority communities and low-income communities from the Project that should affect issuance of this permit. To the extent environmental concerns already exist, EPA believes they are more effectively addressed through other actions EPA and State and local agencies are taking outside the context of this permit application. As discussed below, EPA and the State have taken numerous actions to respond to the communities' concerns about the environmental challenges and burdens they currently face.

EPA and the State have recently undertaken several actions to respond to communities' concerns about birth defects, stillbirths and miscarriages in the area, as well as concerns about the potential for releases from the Kettleman Hills hazardous waste facility. First, EPA requested a comprehensive sampling and analytical study, including a risk assessment, of the possible off-site impacts that the PCB disposal operations at the Chemical Waste Management Facility may present to human health or the environment, and that study was completed, with extensive EPA oversight. In addition, the State of California recently completed studies on reports of increased birth defect incidences and potential environmental exposure sources within Kettleman City. The California Department of Public Health (CDPH) analyzed birth records and interviewed mothers who agreed to participate. The California Environmental Protection Agency (Cal/EPA) also conducted testing of air, water and soil gas in Kettleman City. Further, on February 8, 2010, EPA Region 9 began an extensive Resource Conservation and Recovery Act (RCRA) and Toxic Substances Control Act (TSCA) investigation of the Chemical Waste Management (CWM) Kettleman Hills facility. The TSCA investigation discovered non-compliance with PCB requirements, including PCB releases at the facility. CWM cleaned up those PCB releases under a cleanup plan approved by EPA and the State of California, Department of Toxic Substances Control (DTSC).

EPA and the State of California have also recently taken action to address drinking water concerns in the area. On March 25, 2011, EPA issued an administrative compliance order under the federal Safe Drinking Water Act to the City of Avenal to address the City's violation of the Safe Drinking Water Act Disinfectants and Disinfection By-Products Rule. In addition, in January 2009, the State of California issued a compliance order to the Kettleman City

Community Services District to address its violations of the California Safe Drinking Water Act's maximum contaminant level for arsenic.

With respect to $PM_{2.5}$ and ozone levels in the San Joaquin Valley, EPA, the State of California and the District are working diligently through an air quality planning process under the CAA to address these nonattainment pollutants. Members of the public have had, and will continue to have, the opportunity to provide input at several stages of this process. These agencies are working to ensure that there is a comprehensive plan with adequate controls for attaining the annual and 65 $\mu g/m^3$ 24-hour $PM_{2.5}$ ambient air quality standards. EPA's proposed action on the California Air Resources Board's (ARB) 2008 plan for attaining the $PM_{2.5}$ standards in the San Joaquin Valley was published on November 30, 2010 (see 75 FR 74,518), and California has recently adopted revisions to the plan to address concerns identified by EPA and require additional reductions of air pollutants that adversely affect public health. EPA expects to re-propose action on the plan seeking additional public comment in the near future, before taking final action on the plan by September 30, 2011. EPA will also be working closely with both agencies as they develop a plan to meet the 35 $\mu g/m^3$ 24-hour standard, which the State must submit to EPA by December 2012, following reasonable notice and public hearings. In addition, EPA is working with ARB and the District to ensure that there is a comprehensive plan with adequate controls for attaining the 1997 8-hour ozone air quality standard by the CAA's deadline of 2024. To that end, later this year, EPA intends to propose action on ARB's 2007 plan for attaining the 1997 8-hour ozone NAAQS in the San Joaquin Valley and to request public comment before taking final action on that plan by December 15, 2011. We note that both the 2008 $PM_{2.5}$ plan and the 2007 ozone plan were subject to State/local public participation procedures and public hearings prior to adoption and submittal to EPA.

At the same time, a number of governmental bodies and others are providing significant funding for a wide variety of emissions reduction projects in the San Joaquin Valley that will contribute to substantial emissions reductions for $PM_{2.5}$ and ozone in the Valley, among other pollutants. Through the Federal Highway Congestion Mitigation and Air Quality (CMAQ) program, Kings County is spending $6,439,000 on projects in the years 2010-2014 to reduce emissions of air pollutants from vehicles throughout the county. Further, the West Coast Collaborative, a partnership between leaders from federal, state and local government, the private sector and environmental groups committed to reducing diesel emissions along the West Coast, has provided funding to the District, the Kern County Superintendent of Schools and Cal/EPA for a variety of diesel emission reductions projects throughout the San Joaquin Valley. Since 2008, EPA has provided over $10,000,000 in Diesel Emissions Reductions Act funds to reduce diesel emissions throughout the Valley. We estimate that these funds result in approximately 130 tons of PM and 7 tons of NO_x reductions annually, affecting over 250 diesel engines throughout the Valley.

The provisions in the CAA and EPA regulations do not expressly contemplate that a PSD permit will contain conditions addressing air pollutants for which an area is in nonattainment. EPA interprets the Act and court precedents to establish those emissions of nonattainment pollutants (and their precursors) from the Project should be directly addressed in the NNSR permits that are issued in this instance by the District. Nevertheless, EPA has considered in the context of our environmental justice analysis for this permit the nonattainment conditions in the local area and

strategies in place to achieve attainment with the $PM_{2.5}$ and ozone NAAQS in the San Joaquin Valley. But given the existing framework in which the commenters' concerns regarding nonattainment pollutants are being addressed, EPA has determined that it is not appropriate to address these issues further in the context of this PSD permitting action.

Nitrogen dioxide (NO_2) concentrations in the region are projected to decrease as a result of State and federal mobile source engine and fuel standards already in effect and being phased in as new vehicles replace older ones. Emissions from mobile sources account by far for the majority of NO_x emissions in Kings County. Emissions inventory data from ARB indicate that mobile source emissions in 2010 resulted in 25.2 tons per day of NO_x as compared with 2.2 tons per day for all stationary sources combined (the total inventory for 2010, including area sources, was 27.8 tons per day). In comparison, emissions of NO_x from the Project authorized by this permit are limited to 0.395 tons per day. The emissions inventory for 2020 projects that emissions from mobile sources will be 14.7 tons per day as compared with all stationary sources combined at 2.3 tons per day (with a total inventory of 17.3 tons per day). The maximum modeled impact that the Project will have on annual average NO_2 concentrations is 0.5 $\mu g/m^3$, less than 1 percent of the NAAQS of 100 $\mu g/m^3$.[2]

EPA does not believe that the available data provide sufficient information to determine whether the project's emissions would result in an exceedance of the 1-hour NO_2 NAAQS. EPA believes it is appropriate for us to consider the best available data that are germane in analyzing whether there may be disproportionate adverse impacts on minority communities and low-income communities. Executive Order 12898 recognizes agency discretion and provides for its provisions to be implemented as permitted by existing law, here the CAA, which does not preclude EPA from approving this PSD permit in the face of uncertainty concerning the impacts of short-term NO_2 emissions associated with the Project on the community. However, as noted above, EPA's judgment is that emissions from this source are unlikely to add significant environmental harm to the local communities.

When what is known about the air quality impact of this source is placed in context with mobile source emissions and other sources of air pollutants in the area and balanced against the amount of time EPA's review has extended beyond the deadline by which we were required to issue this decision under the CAA, EPA believes it reasonable to issue this permit without requiring a demonstration that the Project will not cause an exceedance of the 1-hour NO_2 NAAQS. This action is appropriate here to reconcile the tension that exists between provisions of the CAA in this particular instance where we have failed to complete our review of this application within one year of completeness and new requirements have become applicable after that time period. EPA has previously grandfathered pending PSD permit applications where imposing new PSD requirements could delay construction and frustrate economic development and our judgment was that the grandfathered projects would have a relatively minor effect on air quality.

To address the uncertainty that remains about air quality conditions, EPA intends to place an ambient NO_2 monitor in an appropriate location in the vicinity of the proposed source to gather

[2] The annual NO_2 NAAQS is formally expressed in units of parts per million (ppm), with a specified level of 0.053 ppm, for which the equivalent level in units of micrograms per cubic meter ($\mu g/m^3$) is 100 $\mu g/m^3$. Microgram per cubic meter units are commonly used in air quality modeling.

more information about the local NO_2 concentrations. This monitor, along with other NO_2 monitors that exist or may be sited in the District, will be used by ARB, the District and EPA to inform community residents about levels of that pollutant in the ambient air, to determine whether air quality in the region meets or exceeds the NAAQS for NO_2, and will inform governmental plans to address any identified concerns. Any such plans would consider all contributing sources in the airshed, including the Project, in the effort to address any identified nonattainment challenges. Having additional NO_2 monitoring data from this area will better inform future permitting decisions, and help to ensure that any additional measures necessary to reduce NO_x emissions and improve air quality and public health are put in place.

Although the PSD program is based on the goals of preventing air pollution and installing controls when new sources are being constructed, another purpose of the PSD program is to "insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources." Furthermore, there is also evidence of Congressional intent to avoid a moratorium on construction and delays in permit processing.

An initial effort by the applicant and EPA to assess the impact of this source on 1-hour NO_2 NAAQS has been inconclusive and added one additional year to the time it has taken for EPA to process this permit application. At the time EPA initially requested that APC address this requirement in May 2010, EPA was already more than one year overdue in completing action on the permit application, but we did not expect that it would take significant additional time for APC to complete a satisfactory analysis of its impact on 1-hour NO_2 concentrations. However, EPA and APC then spent the next 9 months preparing and reviewing information. The refined nature of the analysis required that APC take more time to prepare its submissions and EPA staff more time to review these submissions than EPA first expected. This delay has extended EPA's review of this application beyond the effective date of the 1-hour SO_2 NAAQS and the date greenhouse gases (GHG) became subject to regulation. These requirements would not have otherwise applied had EPA taken action on this permit application sooner. In the face of the potential need to consume additional time to conduct further review of APC's analysis of 1-hour NO_2 concentrations and to prepare a BACT analysis for GHG, EPA has concluded that grandfathering this application from these three requirements is a more equitable approach to avoid further delays in completing action on this permit in contravention of Congressional intent. EPA maintains our view that the grandfathering of this particular permit from the identified requirements is justified by the combination of the five factors described in the Supplemental Statement of Basis (Supplemental SB) and provides additional explanation below for why the combination of these factors and other considerations support grandfathering in this instance. These factors include: (1) the facility that APC proposes to construct will be a well-controlled facility that will apply BACT for NO_2 and achieve the lowest levels of air pollutant emissions achievable in this instance; (2) APC's permit application was deemed complete by EPA more than a year before, and EPA had issued a proposed permit for the project before, the date on which EPA proposed the hourly NO_2 NAAQS; (3) unanticipated delays with the preparation and review of sufficient information to predict the impact of proposed sources on hourly NO_2 concentrations; (4) the delays encountered in supplementing the APC permit application to address the hourly NO_2 NAAQS caused EPA's review of this application to extend beyond the dates when the hourly SO_2 NAAQS and greenhouse gas requirements became applicable to PSD permit applications; and (5) court decisions recognize an exception, in cases of significant delay

by the administrative agency, to the general rule that an administrative agency should apply the law in effect at the time it issues a permit or license.

EPA has expressed the intent to extend the same treatment to other permit applications that are similarly situated. However, the proposed approach of grandfathering the permit for the Project in particular is the result of EPA's responsibility to balance the statutory obligations to issue decisions on permit applications in a timely manner and to implement the substantive requirements of the Act. While EPA has reached a conclusion on the proper balance in the particular case of APC, we have not yet determined where the proper balance falls for other permits, all or most of which will differ from the APC case in at least some aspects. Thus, this decision should not be viewed as establishing a general rule or precedent applicable to any other permit application.

Courts have recognized that problems may arise in a case that the administrative agency could not reasonably foresee and that such problems must be solved despite the absence of a relevant general rule. In such instances, regulatory agencies may proceed through case-by-case decision-making rather than establishing general rules and regulations. While EPA interprets the law to provide us discretion to grandfather a permit on a case-by-case basis, this is a unique and unforeseen circumstance. Thus, EPA does not intend or expect to make widespread use of this discretion. EPA is separately considering whether a rulemaking process or another mechanism may be a more appropriate means to develop a nationwide grandfathering policy for the 1-hour NO_2 NAAQS.

B. Summary of the Formal Public Participation Process

As stated in the preceding section, EPA proposed to issue a PSD permit to APC for the Project on June 16, 2009. The initial public comment period on the proposal (Proposed Permit)[3] began June 16, 2009, and closed on October 15, 2009. Another public comment period specific to three issues for the proposal began on March 4, 2011 and closed on April 12, 2011. During this second public comment period EPA took comments on the following three issues: 1) EPA's proposal to approve APC's PSD permit application for the Project without requiring a demonstration that this source will not cause or contribute to a violation of the 1-hour NO_2 NAAQS, 2) EPA's proposal not to require this source to meet emissions limitations for GHG or to demonstrate that the proposed source will not cause or contribute to a violation of the NAAQS for 1-hour concentrations of SO_2 and 3) EPA's environmental justice analysis for our proposed PSD permit action for the Project.

The purpose of this document is to respond to every significant issue raised in the public comments received during the public comment periods and explain what changes have been made in the final permit (Final Permit) as a result of those comments.

For the 2009 and 2011 public comment periods, EPA announced the public comment period through public notices published in the Fresno Bee, Vida en El Valle, the Avenal Chimes and on Region 9's website. EPA also distributed the public notices to the necessary parties in

[3] We note that EPA's permitting regulations at 40 CFR Part 124 refer to proposed permits as "draft permits." See 40 CFR 124.6.

accordance with 40 CFR Part 124. The second, third, and fourth public notices were distributed and published in newspapers in English and Spanish. The Administrative Record for the Proposed Permit was made available at EPA Region 9's office. EPA also made the Proposed Permit, the SB and Ambient Air Quality Impact Report (AAQIR) and other supporting documents available on Region 9's website, at the District office and at the following three public libraries in Kings County: Hanford Branch, Avenal Branch and Kettleman City Branch. The Supplemental SB was translated into Spanish and was made available in the same manner as the AAQIR.

EPA held a public information meeting on September 30, 2009 in Avenal, California. The purpose of the public information meeting was to provide information about the proposed permit and how to participate in the public comment process. A Spanish language interpreter was present for oral translation. EPA responded to questions at these meetings but did not formally record remarks from the audience.

EPA held three formal public hearings, on October 1, 2009; October 15, 2009; and April 12, 2011 in Avenal, California. All oral public comments made at both hearings were recorded by a court reporter, and a Spanish language interpreter was present for oral translation.

During the 2009 and 2011 public comment periods, EPA received numerous comment letters by mail, email, fax, and in person. We also received comments by oral testimony at the three public hearings. All comments received equal weight, regardless of the method used to submit them.

C. Recent Court Decision

Based on the one-year deadline set forth in Clean Air Act section 165(c) for EPA to grant or deny a complete PSD permit application, the United States District Court for the District of Columbia issued an order on May 26, 2011 requiring that EPA "issue a final agency action, either granting or denying [APC's] permit application, no later than August 27, 2011." *Avenal Power Center, LLC v. USEPA et al.*, Case No. 1:10-cv-00383-RJL. EPA believes that there remains an opportunity under this order for parties to petition the Environmental Appeals Board to review the Assistant Administrator's permit decision in accordance with 40 CFR 124.19.

II. EPA's Responses to the Public Comments

This section summarizes all significant public comments received by EPA and provides our responses to the comments. In some instances, similar comments may be grouped together by topic into one comment summary, and addressed by one EPA response. The full text of all public comments and many other documents relevant to the permit can be accessed online through EPA's website at http://www.epa.gov/region09/air/permit/r9-permits-issued.html.

A. Comments Submitted During the First Public Comment Period (June 16, 2009 – October 15, 2009)

1. Written Comments

Comments Submitted by Greenaction[4]

1. **Comment:** EPA received a comment stating that EPA's permit process for the Project violates the Executive Order on Environmental Justice because of deficiencies in EPA's scheduling of the 2009 public hearings for the project. The comment states EPA has insisted that the Executive Order does not apply to our[5] permitting decisions. The comment also states that the public hearings held by EPA on October 1 and 15, 2009 were improperly scheduled and violated environmental justice because 1) EPA did not respond to a request for a moratorium on permitting due to a birth defect and infant mortality cluster affecting the town of Kettleman City, and 2) EPA scheduled these hearings at the same time various governmental agencies were taking action on the Project as well as conducting permitting activities for the proposed expansion of the nearby Kettleman Hills hazardous waste landfill. The commenter had earlier expressed concerns about the public notice provided by EPA in June 2009, stating that the notice was not provided to the affected community or to organizations involved in Kings County pollution issues, and requesting that notice be issued again in Spanish and that key documents be translated into Spanish. The commenter had also requested that the draft permit be rescinded until EPA met with the community and provided proper notice, and requested that an evening meeting be held. The commenter had further expressed concerns about EPA's August 2009 public notice, stating that the notice was published only in English-speaking newspapers, and that residents on EPA contact lists from prior meetings in Kings County did not receive notice. The commenter also states that the hearings in October 2009 interfered with the community's attempt to get agencies to conduct an investigation of a birth defect and infant mortality cluster in the area. In addition, the commenter states that EPA is required to promote the maximum level of involvement from the communities affected by our processes and decisions, and that the scheduling had the effect of preventing the fullest possible outreach and level of public involvement in the hearing process.

   Response: Executive Order 12898 ("EO 12898" or "EO"), "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," was signed

[4] In this section and certain other sections of this document, for ease of reference, we have identified the primary commenter raising the issues discussed. However, in some instances a comment summary and response may also address comments made by other commenters.

[5] In summaries of and responses to public comments, the terms "we", "us", and "our" refer to EPA.

on February 11, 1994. The EO establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations. The EO is designed to focus the attention of federal agencies on the human health and environmental conditions in minority communities and low-income communities with the goal of achieving environmental justice.

EPA agrees that the EO does apply to our PSD permitting decisions. See, e.g., *In re Shell Gulf of Mexico, Inc. & In Re Shell Offshore, Inc. (Frontier Discovery Drilling Unit)*, OCS Appeal Nos. 10-01 through 10-04, slip op. at 63-64 (EAB Dec. 30, 2010) (citing prior Environmental Appeals Board (EAB) opinions). EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. EPA has this goal for all communities and persons.

EPA defines meaningful involvement to mean that 1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health, 2) the public's contribution can influence our decision, 3) the concerns of all participants involved will be considered in our decision-making process and 4) the decision makers seek out and facilitate the involvement of those potentially affected. The extensive outreach process enacted by EPA for the Project addressed all of these objectives. In particular, the public information meeting held on September 30, 2009, in Avenal, California was specifically intended to provide potentially affected parties with information about the proposed permit and about how to participate in the public comment process. The public involvement process, which also included three public hearings in the City of Avenal, was also designed to give interested parties ample time to prepare their comments and flexibility to submit their comments in a variety of ways. This enhanced outreach and public comment process goes well beyond the regulatory requirements set forth in 40 CFR Part 124 for PSD permit proceedings, and it clearly demonstrates an effort on EPA's part to seek out and facilitate the involvement of communities in the decision making process.

In response to requests from the public, Region 9 determined it was appropriate to schedule a public information meeting and an initial public hearing in the City of Avenal, with Spanish translation services for both, which it announced through a public notice issued in English and Spanish. In scheduling the 2009 public information meeting and initial hearing, Region 9 considered a variety of factors such as the availability of the meeting facilities and translators, the need to provide adequate time for public notice prior to the information meeting and hearing, and the need to move forward with our permitting decision in a timely manner. In addition, in light of the fact that members of the public expressed concern about conflicting public proceedings in the area, EPA also scheduled a second public hearing (announced by notices in English and Spanish, published in both English- and Spanish-language newspapers) in the City of Avenal with Spanish translation

services to take place two weeks after the first hearing in order to ensure the opportunity for greater participation by the community. The public notice of the second public hearing was distributed to an extensive mailing list, including, among others, environmental justice and community organizations, as well as all Kettleman City post office boxes. Further, EPA extended the public comment period for the permit to almost 4 months. As described above, EPA also opened another public comment period in March 2011 and scheduled a public hearing in April 2011 to solicit comment on three specific issues for our proposal. EPA believes these efforts served to elicit and facilitate the involvement of the potentially affected community so that members of the community were given an appropriate opportunity to participate in, contribute to and voice concerns about EPA's proposed PSD permit decision regarding the Project. Comments made by the public during these processes have been fully considered. In sum, EPA's public participation activities for this PSD permit were fully consistent with our responsibilities under EO 12898, including the relevant provisions in Section 5-5 on public participation and access to information. In particular, EPA believes that the scheduling of the 2009 hearings was proper and consistent with environmental justice goals for meaningful involvement.

Regarding the commenter's statement that the 2009 public hearings for the Project were improperly scheduled because EPA did not respond to the commenter's request for a moratorium on permitting, EPA believes that it was appropriate for us to treat the scheduling of the public hearings for our proposed action as a separate matter from considering and responding to a request for a moratorium on permitting. The purpose of a public hearing is precisely to elicit comments about a proposed action that any member of the public believes EPA should consider in making our final permit decision. Through the scheduled public hearings and the public comment period as a whole, the commenter and other members of potentially affected communities were afforded an opportunity to raise concerns about the Project and provide EPA with any information relevant to the permit decision, including information about why the Project should not be built. Pursuant to 40 CFR 124.17, the appropriate avenue for responding to comments on EPA's proposed action made during the public comment period, including those provided at the hearing, is in EPA's response to comments document.

In addition, we note that 1) EPA has had numerous discussions with community members and community groups to discuss environmental justice concerns, including concerns regarding the birth defects and infant mortality cluster in the area, and 2) EPA and the State of California have taken numerous actions outside of the scope of this PSD permitting decision to follow up on these concerns. Further, EPA believes that our proposed permitting action is protective of public health as the permit meets the NAAQS for the pollutants regulated under the permit, and otherwise meets PSD requirements.

With respect to the commenter's statement that the 2009 hearings interfered with the community's attempt for agencies to conduct an investigation of a birth defect and infant mortality cluster in the area, we do not understand from the comment how the commenter believes the scheduling of the hearings created such interference. In any event, EPA believes that our public participation process, which included a public information meeting; three public hearings with advance notice and Spanish translation services; a period of

approximately 120 days in which to submit comments, later followed by another month-long public comment period on specific issues for the proposal; and flexibility to submit comments in a variety of formats, provided members of the public with a reasonable opportunity to participate in the permit proceedings even for persons who may have had a conflict on the date of one of the public hearings.

2. **Comment:** The commenter further states that, in light of the above, EPA should extend the 2009 public comment period for another 60 days.

Response: In proposing action on a PSD permit, EPA is required by 40 CFR 124.10 to provide for a public comment period of at least thirty days. EPA believes it is important for commenters to have ample time to review proposed permits, and we thought it appropriate to provide the public with extra time to review the permit for this project in particular during our 2009 public comment period. It was for that reason that EPA conducted the enhanced public involvement process in 2009 discussed above, which included a total comment period approximately four times longer than the minimum required by the regulations. We find that the commenter has neither provided a sufficient reason as to why extending the 2009 comment period even further was necessary nor has the commenter adequately explained how any information that may be brought forth during such an extension could influence our final decision. We therefore do not believe that the 2009 comment period should have been extended beyond the approximately 120 days that was provided.

3. **Comment:** The commenter also stated that EPA should hold a public hearing in Kettleman City due to its proximity to the Project (8 miles away) and due to the negative impacts the plant would have on Kettleman City's air quality. The commenter states that Kettleman City is suffering from a health emergency that may be related to environmental pollution, and that there is strong public interest and concern there about the Project.

Response: EPA's goal was to provide communities close to the Project site ample opportunity to comment on the permit. In this case, EPA conducted an extensive public outreach process for the proposed PSD permit. This process included multiple public notices in two languages, and a public information meeting and three public hearings in Avenal, California, which was a reasonable location approximately 9 miles from the Project site and 18 miles from Kettleman City. To the extent some residents found these distances to be unreasonably burdensome, they still had a period of approximately 120 days during which to submit written comments by mail or email. Various community members provided comments by one of these methods. EPA's regulation at 40 CFR 124.12 sets forth the requirements for public hearings; the regulation provides EPA with broad discretion over whether to hold a public hearing, and it does not prescribe the location for a hearing should one be held.

4. **Comment:** [6] The commenter further states that EPA should not issue permits for pollution unless and until environmental pollution is ruled out as a factor in the Kettleman City birth defects cluster. The commenter states that it would be irresponsible for EPA to issue a permit for a large air pollution source in southern San Joaquin Valley so close to a town suffering from birth defects, infant deaths and stillborns. The commenter states that EPA assumes the health of the community of Kettleman City is fine, but that is not the case, and that EPA must re-do our health analysis and evaluate the possible causes of birth defects and infant deaths.

Response: EPA shares the commenter's concerns about birth defects, infant deaths and stillborns in the Kettleman Hills community, and EPA and the State of California have taken numerous actions to follow up on these concerns. For a detailed response concerning actions being taken by EPA and the State of California to address these concerns, please see our response to comment 23 in Section II.B.1. However, the applicable PSD provisions of the CAA do not direct EPA to consider these concerns in the context of this action. EPA believes they are more appropriately addressed through other avenues such as those discussed in the aforementioned response. As a result, we do not believe these issues provide an appropriate basis on which to deny the PSD permit for the Project.

A new stationary source is subject to preconstruction review requirements under the PSD program if it will emit, or will have the potential to emit, in major amounts any criteria pollutant for which the area is designated attainment or unclassifiable with respect to the NAAQS. The location at which the Project will be located is currently designated attainment (or is unclassifiable) for the CO, NO_2, SO_2, PM_{10} and lead NAAQS. The level of each NAAQS is set in consideration of numerous health studies and input from experts and the public, and the NAAQS are set at a level to protect public health, including the health of individuals who might be sensitive to the effects of a particular criteria pollutant. The PSD program is designed to ensure that a new or modified facility will not cause or contribute to a violation of the NAAQS for the PSD pollutants to which a proposed project is subject, and that air quality in a particular area will not deteriorate and will continue to meet those NAAQS. The PSD regulations require a source impact analysis for each such pollutant emitted in significant amounts, and a modeled impact less than the NAAQS ensures that public health is protected. In this case, the modeling analyses indicate that the applicable PSD pollutants from the proposed Project would not cause or contribute to a violation of any NAAQS applicable to the Project. Based on the results, EPA believes that the emissions of applicable pollutants from the Project regulated under the PSD program will not cause any adverse health effects to the Kettleman City community or to other members of the public. As discussed in the Supplemental SB, we are grandfathering the project with respect to the 1-hour NO_2 and 1-hour SO_2 NAAQS. We are making no finding with regard to whether the air quality effects of hourly NO_x emissions will cause any adverse health effects to the Kettleman City community or to other members of the public. We note that SO_2 emissions from the project are below the level that would require an air

[6] These or similar statements were also made by individuals during the Kettleman City Listening Session held on August 12, 2009. Participants in this Listening Session included members of the Kettleman Hills community and government officials, including representatives from EPA Region 9.

quality analysis for 1-hour SO_2 emissions and therefore these emissions would not be expected to have any adverse impact in any event.

5. **Comment:** The commenter included a formal complaint to EPA demanding that EPA enforce Title VI [of the Civil Rights Act of 1964, as amended] against the District and the California Energy Commission (CEC) based on allegations that these agencies violated environmental justice and engaged in discriminatory permit processes concerning the proposed power plant. The commenter elaborated on the actions by these entities that formed the basis of its complaint.

   Response: We are concerned about and take very seriously any alleged violation of Title VI. The review process for such Title VI complaints is carried out independently of the CAA PSD permitting program and is therefore separate from the PSD permitting program. Pursuant to 40 CFR 7.20 and 7.25, the Director of the Office of Civil Rights (OCR), EPA Headquarters, is the designated official for administering the civil rights program at EPA. When a complaint of discrimination is filed with EPA alleging a violation of Title VI of the Civil Rights Act of 1964 or another non-discrimination statute, the complaint is handled by EPA's OCR. EPA Region 9 forwarded the commenter's complaint to EPA's OCR. We note that in a letter dated August 6, 2010 the OCR notified the complainant that it had partially accepted the complaint for investigation and partially referred the complaint to the U.S. Department of Energy for its consideration.

Comments Submitted by Pacific Environment

6. **Comment:** The commenter raised concerns that the proposed power plant would run counter to California's State law for the Renewable Portfolio Standard (RPS) and that the Avenal Energy Project would violate the CEC and the California Public Utilities Commission's (CPUC's) own policies and goals. The commenter explains that the original RPS required utilities to procure 20 percent of their electricity from renewable energy by 2010 and that the California governor ordered an increase in that amount to 33 percent by the year 2020. The commenter further points out that with the increase in natural gas plants, the procurement of electricity from these plants will need to decrease to achieve the RPS goals.

   Response: Ensuring compliance with the RPS and the other policies of the CEC and CPUC to which the commenter refers is a matter of California State law and is outside the scope of our decision to issue a PSD permit under the federal requirements. EPA proposes to issue the PSD permit for the Project pursuant to the federal requirements set forth in Section 165 of the CAA, the implementing regulations of the PSD program under 40 CFR 52.21 and the applicable procedural requirements at 40 CFR Part 124.

7. **Comment:** The commenter refers to various sources, including a 2003 study conducted by the Lawrence Berkeley National Lab (LBNL) that looked at the effects of increasing renewables, and reducing growth in energy demand, on the future need for natural gas plants in California. The commenter states that California has more than enough capacity

from a variety of sources (such as natural gas, nuclear, hydroelectric and other renewable power sources and imports from out of State) to meet the electrical demand on California's electric power grid. The commenter further states that if the State implements both a 33% renewables requirement and aggressive efficiency programs, over 20,000 megawatts would need to be retired and that constructing the Project will reverse this effort by 600 megawatts. The commenter concludes that the policy to move to renewables directly conflicts with any new natural gas capacity beyond those already built or under construction, and that there is no need for the project.

Response: On a national level, EPA promotes renewable energy and energy conservation. Among other things, EPA's Green Power Partnership program encourages organizations of all types to purchase renewable energy certificates from sources of renewable energy in amounts according to the amount of fossil-fuel based power they use. For more information, see http://epa.gov/greenpower. Also see http://www.energystar.gov for information on EPA programs encouraging energy efficiency. However, as discussed above, EPA is issuing the PSD permit for the Project pursuant to the federal requirements set forth in Section 165 of the CAA, the implementing regulations of the PSD program under 40 CFR section 52.21. As stated above, considerations regarding Project compliance with the RPS to which the commenter refers is a matter of California State law and is outside the scope of our decision to issue a PSD permit under the federal requirements.

EPA has previously recognized that it may consider the need for a facility and a "no build" alternative within the context of CAA section 165(a)(2). *In re Prairie State Generating Company*, 13 E.A.D. 1, 32 (EAB 2006) ("*Prairie State*"). However, we have also observed that it is appropriate to refrain from analyzing whether a proposed facility is needed where the state has tasked another state agency with the authority to consider that issue. *Id*. Consistent with this precedent, EPA believes that mechanisms within the State of California provide the appropriate vehicles through which to address issues regarding the need for natural gas-fired power plants in the State, as these mechanisms involve the entities specifically authorized and best equipped to consider the State's short- and long-term energy needs in the context of State renewable requirements, among other factors.

Various mechanisms are in place within the State of California that provide a structure for considering the need for new natural gas-fired power plants in the context of the State's renewable energy requirements and policies.[7] These mechanisms include, among other things, a regular integrated assessment by the CEC of major energy trends and issues facing the State's electricity and natural gas sectors, and the CPUC's oversight of the very detailed planning processes and the procurement activities of investor-owned utilities within the State.

[7] A recent report prepared for the CEC entitled "*Framework for Evaluating Greenhouse Gas Implication of Natural Gas Fired Power Plants in California"* provides useful background regarding some of the considerations and certain aspects of the legal and policy framework in which the issue of need for natural gas-fired power generation should be assessed in the context of the increased use of renewable energy within the State of California. See http://www.energy.ca.gov/2009publications/CEC-700-2009-009/CEC-700-2009-009-F.PDF.

We also note generally that the CEC has recently indicated that there continues to be a need for natural gas-fired power plants in California in the context of increasing reliance on renewable generation. In the context of an informational proceeding held by the CEC to solicit comments and perspectives regarding how it should perform California Environmental Quality Act analyses for the thermal power plants that it licenses, the CEC's committee report on the proceedings stated:

> The decline in the gas-fired energy in the system might easily mislead some to think that no more gas-fired power plants need be built. However, that misapprehends the nature of an electric system more reliant on "intermittent" renewable power such as wind and solar energy, and the need for reserve generation capacity when those intermittent renewable sources generate less. Wind power, for instance, is often less available on the hottest summer days when generation capacity is most needed to meet system load requirements. Thus, a system that increasingly relies on renewable generation for energy must likewise provide gas-fired dispatchable capacity to make the system reliable when intermittent renewable generators are providing less. This is why the 2007 IEPR states that natural gas generation "must be used prudently as a complementary strategy to reduce greenhouse gas emissions." [citation omitted] Many of the gas-fired license applications currently before the Energy Commission are for projects that will support a transition to a more renewable-based generation system, presumably because the procurement process favors such projects. This criterion—the degree to which a project supports the transition to a more renewable system, while preserving reliability—is important to the assessment of project GHG impacts in future licensing decisions.

CEC Committee Guidance on Fulfilling CEQA Responsibilities at 224 (March 2009).[8]

Furthermore, a PSD permit issuing authority is not required to perform an independent analysis of alternatives, or an analysis that extends beyond that submitted by commenters. The EAB has explained that administrative imperatives are a key reason why the permitting authority is not required to undertake an independent evaluation of alternatives:

> These limits on the permit issuer's obligation to consider alternatives are particularly important where…a rigorous and robust analysis would be time-consuming and burdensome for the permit issuer. In this context, the permit issuer must be granted considerable latitude in exercising its discretion to determine how best to apply scarce administrative resources.

Id. at 33.

In California, in order to conduct a reasoned analysis to determine the need for new natural gas-fired power plants in general, or a specific natural gas-fired power plant in particular, either within the State as a whole, or in a particular geographic location within the State, EPA would need to consider a myriad of extremely complex factors and detailed information that EPA has neither the resources nor the expertise to analyze. Therefore,

[8] See http://www.valleyair.org/programs/CCAP/documents/CEC-700-2009-004.pdf.

EPA does not believe that it is appropriate to conduct the type of rigorous and robust analysis that would be required to definitively determine the need for the Project. We note that even if EPA did have the expertise and resources to conduct such an analysis, the level of analysis and information submitted by the commenter does not consider all of the relevant factors or provide the type of detailed information necessary for such an analysis as it provides limited information focused specifically on the State's renewable energy requirements and policies.

In sum, EPA believes that the information provided by the commenter does not support a determination that EPA should not approve the PSD permit for the Project.

Comments Submitted by the Center for Race, Poverty & the Environment

8. **Comment:** The commenter raised concerns about the health effects of ozone and $PM_{2.5}$, and requested that EPA subject the Project to the highest level of scrutiny to minimize any emissions associated with it.

Response: As the commenter notes, the location at which the Project will be located is designated nonattainment for ozone and $PM_{2.5}$. While we appreciate the commenter's concerns, the applicable regulations provide that direct $PM_{2.5}$ emissions and emissions of ozone and $PM_{2.5}$ precursors from the Project are covered by NNSR permitting requirements and are not covered by the PSD permitting criteria in section 52.21 of EPA's regulations that apply to EPA's decision. See, 40 CFR 52.21(i)(2). The NNSR program contains more extensive and often more stringent requirements for the control of emissions. In this case, the applicable NNSR program is administered by the District. Our responses to comments 11, 12 and 17 in this section below also address this issue. Nevertheless, in this instance we have considered the potential impacts of nonattainment pollutants in the context of our Environmental Justice Analysis. For further information, please see the Supplemental SB and EPA's response to comment 29 in Section II.B.1.

As discussed above, a new stationary source is subject to preconstruction review requirements under the PSD program if it will emit, or will have the potential to emit, in major amounts any criteria pollutant for which the area is designated attainment or unclassifiable with respect to the NAAQS. Also as discussed above, the location at which the Project will be constructed is currently designated attainment (or is unclassifiable) for the CO, NO_2, SO_2, PM_{10} and lead NAAQS. EPA has carefully considered the potential impacts on air quality of these emissions from the Project. As required by the CAA and applicable PSD regulations, the terms and conditions of the final PSD permit ensure that activities authorized by the permit will not cause or contribute to a violation of the applicable NAAQS. Because this permit assures compliance with the applicable NAAQS and the NAAQS are set in such a way that they are protective of public health, we are confident that with respect to these NAAQS the emissions of these pollutants from the Project will not pose significant health risks. We are grandfathering the Project with respect to the 1-hour NO_2 and 1-hour SO_2 NAAQS. (See the responses to comments 1-22 in Section II.B.1.)

9. **Comment:** The commenter states that the BACT determination is flawed and fails to comply with federal PSD program BACT requirements because it does not include a ranking of control options and does not consider whether any control options are technically infeasible. The commenter further states that the BACT analysis provided in the permit application makes no mention of a top-down approach to the analysis. Finally, the commenter identified the following two similar generating facilities with lower CO emission limits and requested that these lower emission limits be included in the CO BACT analysis:
    1. Kleen Energy Systems (RBLC ID: CT-0151), with permitted BACT limits of 0.9 ppmvd without duct burning and 1.7 ppmvd with duct burning, at 15% O_2 over a 1-hour period; and
    2. Virginia Electric and Power Company's Warren County Facility (RBLC ID: VA-0308, operating scenarios 1 and 2), with permitted limits of 1.2 and 1.3 ppmvd at 15% O_2 (no averaging period specified).

    Response: EPA developed the top-down process in order to improve the application of the BACT selection criteria and provide consistency in establishing BACT. EPA has not established the top-down BACT process as a binding requirement through rule, but EPA Regional Offices that implement the federal PSD program apply the top-down BACT process in accordance with EPA policies and interpretations. The most comprehensive discussion of the five-step top-down BACT process can be found in EPA's 1990 Draft New Source Review Workshop Manual, but the method has been progressively refined through federal permitting decisions by EPA, orders on Title V permitting decisions, and opinions of the EPA Environmental Appeals Board (EAB) that have adopted many of the principles from the 1990 Workshop Manual and expanded upon them. In response to this comment, we asked the permit applicant to prepare a more detailed control technology analysis using the established five-step top-down procedure to provide a more detailed explanation as to why the options selected as BACT were the top options available. The information provided by the applicant is provided in Appendix A. Having evaluated the Applicant's further submittal, we have confirmed that the emission limits we originally proposed for NO_2 and PM_{10} do in fact represent BACT for the Project. Therefore, no change has been made to the permit in this regard.

    Based on the information that the Agency had at hand, and the fact that the District Rules require new major sources in a nonattainment area to satisfy requirements pertaining to the Lowest Achievable Emission Rate (LAER), the Agency determined when it issued the draft permit that the applicant was proposing the top control options available after reviewing the information provided. For the combustion sources, no more stringent control options were eliminated as a result of the BACT analysis. Our AAQIR summarizes BACT determinations for other projects and discusses the chosen control options for the Project. Furthermore, the selected options also were determined to represent LAER, which does not require consideration of the cost-effectiveness for emission reductions. Under these circumstances, EPA believed it was unnecessary to include a detailed discussion in the AAQIR of all possible control options with regard to the Project. EPA has noted that when the applicant accepts the top control option, energy and environmental impacts need not be

analyzed at step 4 of the process. *In re: Knauf Fiber Glass, GMBH*, 8 E.A.D. at 131 n.15. Furthermore, a full analysis is not required where there are two or more alternatives with comparable control efficiencies. *In re: Prairie State Generating Co.*, 13 E.A.D. at 36.

With respect to CO, the more detailed analysis provided by the Applicant also supports the fact that the original limits we proposed were consistent with BACT at the time the permit was released for public comment in 2009. However, BACT is properly established at the time of permit issuance and we recognize that it is appropriate not to rely solely on the BACT analysis supporting the 2009 proposal. Based on information provided by the commenter regarding the two facilities described above, and additional information collected by EPA that has become available since the time of our original proposal in 2009, we have determined that continuous compliance with a CO limit of less than 2.0 ppmv appears to be achievable. This determination is based on the permitted level for the Virginia Electric and Power Company's Warren County Facility (now named Dominion Power) referenced by the commenter.

It should be noted that the Dominion Power facility is not in operation and one unit at the Kleen Energy facility has only just begun operating while the other unit at that facility is still undergoing shakedown. Additionally, the Dominion Power permit was revised in December 2010 with CO emission limits of 2.4 ppm at 15% O_2 with duct burning and 1.5 ppm at 15% O_2 without duct burning (both at averaging periods of three-hours), which represents an increase in the CO emission limits originally established.

An emissions limitation applies for the entire lifetime of the facility, which in this case will be decades, and must be met on a continuous basis. For this reason, the EAB has stated that "it is wholly appropriate for the permit issuer to consider, as part of the BACT analysis, the extent to which the available data demonstrate whether the emissions rate at issue has been achieved by other facilities *over a long term*." See *In Re: Newmont Nevada Energy Investment, L.L.C.*, 12 E.A.D. (Dec. 21, 2005) at 18 (emphasis added). In addition, the EAB approved of the permit issuer "tak[ing] into account the absence of long term data, or the unproven long-term effectiveness of the technology in setting the emissions limitation that is BACT for the facility." *Id*. See also *Prairie State Generating Company*, PSD Appeal No. 05-05 (Aug. 24, 2006) at 71. We believe that the BACT limit we have established for CO in the final permit for the Project strikes an appropriate balance between the permitted levels on one hand and the lack of long-term compliance data for these very low emission rates on the other hand. Given the lack of long-term compliance data, we feel it is appropriate to implement a phased approach for establishing revised CO limits for the Project. In addition to revising the concentration limit (ppmvd) for CO, we have also revised the hourly mass emission rate (lb/hr) commensurate with the revised concentration limit. This hourly mass emission rate was calculated using the F-factor method per 40 CFR Part 60 Appendix A, Method 19. The phased approach will work in the following manner:

1. The permit requires the Permittee to design the gas turbines to achieve CO emission rates of 1.5 ppmvd and 6.27 lb/hr (1-hour average) without duct firing, and 2.0 ppmvd and 8.35 lb/hr (1-hour average) with duct firing. The permit requires that prior to construction, the Permittee submit design specifications as proof that the

gas turbines were designed to achieve such a rate. The Permittee is also required to submit a plan that sets forth the measures that will be taken to maintain the system and optimize its performance.

2. For the first three years of commercial operation of the Project, the Permittee must operate the gas turbines according to the design specifications and within the design parameters, and consistent with the maintenance and performance optimization plan, but will be allowed to emit up to 2.0 ppmvd CO and 8.35 lb/hr (1-hour average) with duct firing and without duct firing.

3. Following the first three years of commercial operation, the limits of 1.5 ppmvd and 6.27 lb/hr (1-hour average) without duct firing will take effect unless the emissions and operating data collected by the Permittee indicates that these limits are not feasible and the Permittee submits an application to EPA no later than the end of this 3-year period requesting a revision to these limits. Such an application must contain data and information that demonstrates the Facility was operated according to the design specifications and parameters and the maintenance and performance optimization plan, as well as a technical justification explaining why the lower limits are not feasible.

4. EPA will review the submittal and, following the applicable review process (which will include an opportunity for public review and comment), make a final decision regarding the requested revision based on what has been shown to be achievable. During this review process (should it be necessary), the Permittee will be allowed to operate under the initial emission limits of 2.0 ppmvd and 8.35 lb/hr (1-hour average) with duct firing and without duct firing. If EPA determines that a revision is not warranted, the lower emission limits will become applicable.

This process will ensure that the optimal limit is set for the Project while accounting for the current uncertainties regarding the ability of facilities to demonstrate continuous and long-term compliance with such low emission rates. Such optimization processes that ratchet limits downward based on assessments that take place after permit issuance have been upheld in the past by the EAB. See *In re RockGen Energy Ctr.*, 8 E.A.D. 536, 554 (EAB 1999) and cases cited therein.

Condition X.C.1 of the Final permit has been revised and X.C.3 has been added as a result of this comment.

10. **Comment:** The commenter raised concerns that the proposed BACT determination is faulty as a matter of law because it fails to consider or analyze the GHG emissions from the Project or any technology to control them. The commenter also states that energy efficiency measures to minimize GHG emissions should be considered. The commenter presents a regulatory interpretation expressing its perspective that GHGs are "subject to regulation" under the CAA, which cites Sections 111 and 202 of the CAA, as well as the [then] proposed Endangerment Finding.

Response: EPA did not consider GHGs to be subject to regulation at the time it issued the Proposed Permit in June 2009. 75 FR 17004 (April 2, 2010). Although EPA has determined that GHGs became subject to regulation as of January 2, 2011, we are grandfathering the Project with respect to the requirement for GHG BACT, for the reasons given in the Supplemental SB. For additional detail with respect to this issue, see the response to comment 10 in Section II.B.1.

11. **Comment:** The commenter acknowledges that the Project's potential to emit PM/PM_{10} is 80.7 tons per year (tpy) and states that APC's proposal to offset PM emissions through SO_2 offsets is invalid under the CAA, thus impairing the ambient air quality.

Response: The PSD permit for the Project is being issued under Part C of the CAA and the implementing regulations at 40 CFR 52.21, which set forth the preconstruction review requirements for sources located in an area that is designated attainment or unclassifiable for a particular pollutant. Unlike the provisions of Part D of the Act, which include preconstruction requirements for sources located in nonattainment areas, neither Part C nor the PSD regulations require project applicants to offset increases in emissions. Rather, air quality is primarily protected through the NAAQS and PSD increment analysis. In this case, the location at which the Project will be constructed is designated attainment for the federal PM_{10} NAAQS and we have therefore evaluated the impacts of the Project's PM_{10} emissions on ambient air quality according to the PSD program requirements.

As we explained in the AAQIR for the proposed permit, EPA has established Significant Impact Levels (SILs) to characterize air quality impacts from sources that undergo PSD review. A SIL is a threshold level for the ambient concentration resulting from a source's emissions for a given pollutant and averaging period, below which the source is assumed to have an insignificant impact. The permit record clearly shows that the maximum modeled impact for PM_{10} is considerably below the applicable SIL. We therefore disagree with the commenter that the Project will significantly impair air quality in this respect. Furthermore, offsets are not required by the regulations at 40 CFR 52.21. EPA is unable in this PSD permitting action to address the commenter's concerns about the adequacy of any offsets required by the District in its permitting process. EPA's focus here is on whether the project applicant has satisfied the regulatory requirements in section 52.21 that must be met in order to obtain a PSD permit.

12. **Comment:** The commenter raises concerns regarding attainment and maintenance of the NAAQS within the context of the San Joaquin Valley's nonattainment status for $PM_{2.5}$. The commenter further discusses concerns regarding APC's proposal to meet 98% of its PM offset requirements from SO_2 offsets at a one-to-one ratio. Concerns raised by the commenter include the following: the differing health risks associated with SO_2 and PM; the commenter's belief that the PM emissions from the Project will likely be $PM_{2.5}$ or smaller; whether there is an even trade for people living near the Project given that the SO_2 reductions occurred farther away; the precursor relationship of SO_2 to PM; and the EPA recommended 40 to 1 ratio for SO_2 to PM trading.

Response: As the commenter notes, the San Joaquin Valley is designated nonattainment for $PM_{2.5}$. Our responses to comments 8, 11, and 17 in this section explain that the statutory and regulatory provisions under which this permit is being issued pertain to pollutants for which an area is designated attainment or unclassifiable. The District administers the nonattainment preconstruction permit program under the CAA.

13. **Comment:** After citing a passage from the AAQIR for the proposed permit, which states that the applicant has assumed the combustion emissions of PM are considered equivalent to those of PM_{10} emissions, the commenter states that the draft permit is legally and technically inadequate because it attempts to use PM_{10} as a surrogate for avoiding the direct regulation of $PM_{2.5}$ as required by the CAA. The commenter contends that EPA must conduct a BACT analysis for $PM_{2.5}$ and establish BACT emission limits for $PM_{2.5}$ directly as part of any final permit for the project.

Response: We would like to clarify the passage from the AAQIR quoted by the commenter and its implications as to whether EPA is required to establish BACT limits for $PM_{2.5}$ in this PSD permit.

Regarding the need to establish limits for $PM_{2.5}$, as we have explained above, the PSD permitting program applies to pollutants for which an area is designated attainment or unclassifiable, and the nonattainment NSR program applies to pollutants for which the area is designated nonattainment. In this case, the San Joaquin Valley is classified as attainment (or unclassifiable) for NO_2, SO_2, CO, PM_{10} and lead. These are the only pollutants for which EPA is the permitting authority. The San Joaquin Valley is classified nonattainment for $PM_{2.5}$ and ozone, and the District is the permitting authority for the nonattainment NSR program. Since the San Joaquin Valley is designated nonattainment for $PM_{2.5}$, emission limitations and other applicable requirements pertaining to $PM_{2.5}$ emissions are appropriately addressed in the applicable nonnattainment NSR permitting process administered by the District[9] and not in the PSD permit that EPA is issuing. Given this, EPA has not inappropriately used PM_{10} as a surrogate to meet PSD requirements for PM2.5 because EPA is not required under section 52.21 to address PSD requirements for $PM_{2.5}$ in this permit. However, to clarify the meaning of the passage the commenter quoted from our AAQIR, we shall explain further.

Prior to July 1, 1987, air quality impacts from stationary sources were measured by an indicator known as Total Suspended Particulate (TSP). TSP consists of all PM emissions, including those greater in size than PM_{10}. Recognizing that PM_{10} particles have more significant health effects than larger particles, EPA revised the NAAQS for PM on July 1, 1987 and in doing so, we established PM_{10} as an indicator by which air quality impacts are to be measured. Although the TSP NAAQS and increments were later revoked and are no longer in place today, the PSD program still applies to sources that emit more than a threshold amount of TSP. The application of BACT, for example, is a PSD requirement

[9] We note that in this matter, the potentially applicable regulation is 40 CFR Part 51, Appendix S. Under Appendix S, the applicable regulatory threshold for triggering NNSR permitting for $PM_{2.5}$ emissions is 100 tons per year. The potential to emit $PM_{2.5}$ for this project is less than 100 tons per year and these emissions are therefore not subject to NNSR requirements.

that is still relevant for TSP sources. Given the nature of the stationary source in this case (i.e., a natural gas-fired power plant), it is unlikely that any of the PM emissions will be larger than PM_{10} particles. Further, because PM_{10} has more serious health impacts than TSP, and because there is a NAAQS for PM_{10} whereas there is none for TSP, it is far more protective of public health in the PSD permitting context to assume that all of the PM emissions from the Project are in the form of PM_{10} (recall that in this case $PM_{2.5}$ emissions are handled separately under the nonattainment NSR permitting process). The passage from the AAQIR quoted by the commenter is an explicit statement of this assumption and it is in no way related to the use of PM_{10} as a surrogate for $PM_{2.5}$. As a result, we disagree with the commenter that the permit is inadequate on the basis alleged.

Comments Submitted by Earthjustice

14. **Comment:** The commenter states that the CAA requires BACT for pollutants subject to regulation under the Act and that carbon dioxide (CO_2) is such a pollutant. The commenter notes that the permit record does not contain an analysis for CO_2 controls and states that the permit fails to address BACT for CO_2. According to the commenter, such an analysis should have considered such things as energy production alternatives that do not rely on fossil fuel combustion, hybrid technologies that could improve overall carbon efficiency of the power plant, co-generation, changes to the project design that would lower total carbon emissions, and opportunities to improve turbine efficiency. The commenter finally states that once EPA determines the efficiency that represents BACT, EPA must translate that performance into enforceable limits on CO_2 emissions. The commenter also states that EPA must revise the proposed permit to explain EPA's position on BACT for CO_2 so the public can comment on the control levels selected or EPA's rationale for refusing to impose such controls.

    Response: EPA did not consider GHGs to be subject to regulation at the time it issued the Proposed Permit in June 2009. 75 FR 17004 (April 2, 2010). Although EPA has determined that GHGs became subject to regulation as of January 2, 2011, we are grandfathering the Project from the requirement for BACT for GHGs, as stated in our Supplemental SB and for the reasons given in our responses to comments 1-22 in Section II.B.1.

15. **Comment:** The commenter states that the proposed permit fails to fully analyze BACT for NOx, CO, or PM_{10}. The commenter states that:

    - EPA failed to provide a top-down BACT analysis (including a ranking of available technologies, among the other elements of such an analysis);
    - the analysis EPA did provide was incomplete as it did not consider two facilities (the Kleen Energy Systems facility in Connecticut, and the CPV Warren facility in Virginia) that were recently permitted with CO limits below 2.0 ppm;
    - EPA did not consider improvements in gas turbine efficiency to lower overall emissions;
    - EPA did not consider alternatives to duct burning; and
    - EPA did not consider actual emissions data from other sources as opposed to a simple review of permitted levels for other facilities.

Response: Our response to comment 9 in Section II.A.1 addresses the majority of the issues raised in this comment, including the commenter's desire for a more complete top-down BACT analysis, consideration of the facilities in Connecticut and Virginia, and consideration of actual emissions data.

With respect to the commenter's suggestion that we consider alternatives to duct firing for peak power production, we agree with the commenter that emissions from the facility are slightly greater when the duct burners are used than when they are not. However, the commenter has not identified a lower-emitting alternative for achieving the purpose of the duct burners, which is to raise peak electric output as needed. Because the duct burners use turbine exhaust gas (TEG) for combustion and the temperature of the TEG is already elevated, relatively little heat is required to raise the temperature of the combustion products entering the HRSG to the final desired level. As a result, duct burner thermal efficiency can approach 100%. In comparison, other potential alternatives such as an auxiliary boiler, simple cycle gas turbine, or internal combustion engine have lower thermal efficiencies. The commenter did not suggest other alternatives for us to consider, and we are aware of none that would rival the duct burners in efficiency or produce fewer emissions. As a result, we do not believe our BACT analysis is flawed because we did not consider alternatives to duct firing in greater depth.

Similarly, we do not agree with the commenter that our BACT limits for the Project are flawed because we did not conduct an exhaustive analysis of the potential improvements one gas turbine model might have over another and the incremental benefits such improvements might have on criteria pollutant emission levels. Where there are two or more alternatives with comparable control efficiency, only one of the alternatives must be fully analyzed. *In re Prairie State Generating Co.*, 13 E.A.D. at 36. Notably, the document the commenter cites to as evidence that the Project is "terribly inefficient" states that, "*[t]he F-class advanced heavy duty gas turbines to be employed in Avenal Energy represent some of the most modern and efficient such machines now available*. The applicant would employ two GE Frame 7FA combustion turbine generators in a two-on-one combined cycle power train nominally rated at 530 MW and 56.5% maximum full load efficiency LHV at International Organization for Standardization (ISO) conditions (GTW, 2008). One possible alternative is the Siemens SCC6-5000F…Another alternative is the Alstom Power KA24-2…*Any differences among the GE 7FA, SCC6-5000F, and Alstom KA24 in actual operating efficiency would be insignificant*." Final Staff Assessment for the Avenal Energy Project, at 5.3-4 [emphasis added]. EPA is thus not persuaded by the comment that the selected options is "terribly inefficient."

As requested by the commenter, we are providing the following table, which ranks the most effective technologies for controlling NO_x and CO emissions from the gas turbines:

Technology	**Typical Control Efficiency**	**Typical Emission Rates**

NO_x		
Dry Low NO_x Combustion	75-90%	9-25 ppm
EMx^{TM} (or $SCONOx^{TM}$)	90-95%	2.5 ppm (a)
DLN+SCR	80-95%	2 ppm
CO		
EMx^{TM} (or $SCONOx^{TM}$)	~90%	5-6 ppm (a)
Oxidation Catalyst	70-95%	2-6 ppm

(a) For the EMx technology, the listed emission rates are for gas turbines less than 50 MW. We are unaware of EMx installations on utility-sized turbines.

It is clear from this comparison that dry low NO_x burners with SCR and an oxidation catalyst represent the most efficient options for NO_x and CO control respectively. This comparison supports our original proposal for the control technology for the Project.

16. **Comment:** Regarding the CO BACT limit, the commenter states that limits below 2.0 ppmvd cannot be ruled out without analyzing the feasibility and cost-effectiveness of improved performance. The commenter discusses various cost-effectiveness values including one that is based on a project permitted by the Bay Area Air Quality Management District and others in a paper from the Air & Waste Management Association. The range of cost-effectiveness values presented in the comment is from $3,373/ton to $4,944/ton, and the commenter included a reference to a letter that concluded costs "well over $6,000/ton" would not be BACT.

Response: EPA agrees with the commenter that a CO limit below 2.0 ppmv cannot necessarily be ruled out in this case. However, as previously mentioned, the two facilities whose CO limits were cited are either not operational or have only just begun operation. Our response to comment 9 in Section II.A.1 provides further details on our final CO BACT determination. We also wish to note for clarification that (as the commenter himself recognizes in his comments) the primary purpose of the collateral impacts assessment in Step 4 of the BACT analysis is to temper the stringency of the technology requirements whenever energy, environmental and economic factors render use of the most effective technique inappropriate. See *Columbia Gulf Transmission Co.*, 2 E.A.D. 824, 826 (Adm'r 1989). In this case, we are establishing the CO BACT limit in the range suggested by the commenter and are not ruling out use of another control option based on economic factors. As a result, our revised BACT determination does not rely on the cost data provided by the commenter.

17. **Comment:** The commenter states that the proposed permit fails to demonstrate that the Avenal Project will not cause or contribute to violations of NAAQS for ozone and fine particulate matter. The commenter notes that the Project's $PM_{2.5}$ and NO_x emissions would be 80.7 tpy and 144.3 tpy, respectively, and states that these emissions are over the significance thresholds at 40 CFR 52.21(b)(23)(i) [10 tpy and 40 tpy, respectively]. As such, the commenter claims that pursuant to 40 CFR 52.21(m)(1)(a) and 52.21(k)(1), and CAA section 165(a)(3), the applicant must conduct an analysis of ambient air quality in the area for $PM_{2.5}$ and ozone, and demonstrate that the increase in emissions from the source will not cause or contribute to air pollution in violation of the $PM_{2.5}$ and ozone NAAQS. The commenter acknowledges the language at 40 CFR 52.21(i)(2), which exempts sources

from air quality analysis requirements with respect to pollutants for which the area is designated nonattainment, but the commenter contends that there is no basis for such an exemption in this instance because EPA only recently designated the San Joaquin Valley nonattainment for the 24-hour 35 μg/m3 $PM_{2.5}$ standard and has not yet designated the Valley for the 75 parts per billion ozone standard.

Response: We would like to clarify that the provisions of 52.21(m)(1)(a) and 52.21(k)(1) do not apply to the Project with respect to $PM_{2.5}$ and ozone. As explicitly stated at 40 CFR 52.21(i)(2), paragraphs (j) through (r) of section 52.21 shall not apply to a major stationary source with respect to pollutants for which an area is designated nonattainment. The commenter acknowledges this exemption but argues that the applicant is still required to demonstrate that the source will not cause or contribute to a violation of the $PM_{2.5}$ and ozone NAAQS in order to receive a PSD permit. We believe that a proper reading of the CAA and its implementing regulations does not support this argument. The commenter's argument is founded on its incorrect reading of the language of CAA section 165(a)(3), which states that the owner or operator of a proposed facility must demonstrate "that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of ***any***…national ambient air quality standard in any air quality control region" (emphasis added). Here, the commenter effectively reads "any" to mean "all," irrespective of the attainment status of the project location with respect to a particular pollutant – thus, the commenter's assertion that the project proponent must evaluate the air quality impacts of the Project's $PM_{2.5}$ and ozone emissions despite the fact that the San Joaquin Valley is designated nonattainment for both pollutants. What the commenter does not recognize is that the text of section 165(a)(3) is preceded by language that states: "No major emitting facility on which construction is commenced after August 7, 1977, may be constructed ***in any area to which this part applies*** unless –" (emphasis added). See CAA 165(a). The meaning of this language was considered by the Court of Appeals for the D.C. Circuit in *Alabama Power Co. v. Costle* when EPA was challenged in our promulgation of PSD regulations to implement provisions of the CAA Amendments of 1977. The Court's decision states in relevant part:

> Section 165(a) [footnote omitted] provides that a PSD permit is required before a major emitting facility "may be constructed in any area to which this part applies." Industry petitioners contend that this language limits the application of the PSD review requirements to sources constructed in certain locations, and that those locations are the statutorily defined "clean air areas." [footnote omitted] On this premise, industry petitioners argue that section 165 does not apply to sources located in the so-called "nonattainment" areas. [footnote omitted] EPA, on the other hand, takes the position that the identification of "clean air" and "nonattainment" areas in section 107(d) [footnote omitted] of the Act are only a starting point for the planning process that will lead to revised state implementation plans, that these identifications do not shape the "area" to which the PSD review requirements apply, and that preconstruction review must precede the construction anywhere of a major emitting facility which will adversely affect the air quality of an area to which this part applies. EPA's regulations extend the permit requirements of section 165 to all sources, wherever located, if the emissions from the source have an impact on any

> clean air area. [footnote omitted] The issue, then, is whether a source becomes subject to the PSD review process because of its location within an area to which this part applies, or because of its impact upon the air quality of one….After careful consideration of the statute and the legislative history, we must accept the contention of the industry petitioners that the phrase "constructed in any area to which this part applies" limits the application of Section 165 to major emitting facilities to be constructed in certain locations….The plain meaning of the inclusion in section 165 of the words "any area to which this part applies" is that Congress intended location to be the key determinant of the applicability of the PSD review requirements….We have now held that section 165 does not, by its own terms, apply to sources located outside of clean air areas.

636 F.2d 323 (D.C. Cir. 1980). It was actually in response to the Court's decision in this case that the exemption at 52.21(i)(2) cited above was added to the regulations:

> This section summarizes how PSD review as modified in response to Alabama Power will apply….If a source or modification thus qualifies as major, its prospective location or existing location must also qualify as a PSD area, in order for PSD review to apply. A PSD area is one formally designated by the state as "attainment" or "unclassifiable" for any pollutant for which a national ambient air quality standard exists. This geographic applicability test does not take into account what new pollutant emissions caused the construction to be major. It looks simply at whether the source is major for any pollutant and will be located in a PSD area. Once a source applicant has determined that proposed construction falls under PSD based on the above size and location tests, it must then assess whether the pollutants the project would emit are or are [sic] subject to PSD. If a new major stationary source emits pollutants for which the area it locates in is designated nonattainment then the source is exempt from PSD review for those pollutants. These sources must, however, meet the applicable requirements of NSR for each nonattainment pollutant. Similarly, if a major modification to be constructed in a PSD area involves changes only for nonattainment pollutants then the source is not subject to PSD. These modifications must meet the appropriate nonattainment NSR under the SIP for the pollutant.

45 FR 52677.

The preamble goes on to say: "C. What Must a Source or Modification Do To Obtain a PSD Permit? …It must conduct an ambient air quality analysis. Each PSD source or modification must perform an air quality analysis to demonstrate that its new pollutant emissions would not violate either the ***applicable*** NAAQS or the applicable PSD increment." 45 FR 52678 (emphasis added).

Thus, the reach of section 165(a)(3) of the Act and sections 52.21(k) and 52.21(m) of EPA's regulations do not extend to pollutants for which the project area is designated nonattainment. The location of the Project is designated nonattainment for both $PM_{2.5}$ and ozone. (See 70 FR 944, 74 FR 58688, and 69 FR 23858) This is true even though the San

Joaquin Valley was designated nonattainment for $PM_{2.5}$ relatively recently. The timing of the State planning process for nonattainment pollutants has no bearing on the fact that section 165(a)(3) of the Act and the applicable PSD regulations do not apply to those pollutants in this instance. Further, although the commenter is correct that EPA has not designated the San Joaquin Valley with respect to the 75 ppb ozone standard, the Valley is designated nonattainment for the less stringent 1997 ozone standard of 80 ppb. We note that the exemption at 40 CFR 52.21(i)(2) applies on a pollutant-wide basis and is not applied separately to individual standards for the same pollutant. The language reads as follows:

> The requirements of paragraphs (j) through (r) of this section shall not apply to a major stationary source or major modification **with respect to a particular pollutant** if the owner or operator demonstrates that, **as to that pollutant**, the source or modification is located in an area designated as nonattainment under section 107 of the Act. (emphasis added)

Application of this exemption to the older, less stringent ozone NAAQS, but not the newer, more stringent one would be illogical. It would not make sense to require a source to demonstrate that it would not cause or contribute to a violation of the 75 ppb standard when the area in which the source is located is already in nonattainment with the less stringent standard of 80 ppb.

For all of the reasons stated above, we disagree with and cannot base our action on the commenter's assertions that the applicant must conduct an analysis of ambient air quality in the area for $PM_{2.5}$ and ozone to satisfy section 165(a)(3) of the Act and sections 52.21(k) and 52.21(m) of our regulations. As noted in the response to comment 29 in Section II.B.1, however, we are very actively supporting the efforts to improve $PM_{2.5}$ and ozone air quality in the area and have considered $PM_{2.5}$ and ozone in the context of the Environmental Justice Analysis for this permit.

18. **Comment:** The commenter raises a number of additional issues related to concern about the lack of an air quality analysis for $PM_{2.5}$ and ozone. Among other things, the commenter states that the applicant's air quality analysis is defective because there is no discussion of ambient ozone impacts including a discussion as to how the NO_x emissions from the plant will or will not contribute to the ozone problem in the area. Additionally, the commenter states that the APC's analysis does purport to address $PM_{2.5}$ but is fatally flawed. The commenter references portions of the modeling analysis that evaluate the air quality impacts associated with PM_{10}, draws a connection between this analysis and the $PM_{2.5}$ standard, and then discusses the Project's alleged use of PM_{10} as a surrogate for determining compliance with section 165(a)(3) for $PM_{2.5}$ and the lack of SILs or other *de minimis* thresholds for use in making such a determination. The commenter also states that the modeling analysis is inadequate because it does not account for the contribution of secondary $PM_{2.5}$ and ozone formation as a result of the source's NO_x emissions. Next, the commenter points to recent studies, which it says show that emissions of CO_2 can alter local atmospheric chemistry and increase the formation of ozone and fine particulate matter concentrations, and states that the air quality analysis should analyze the effect of adding

1.7 million tons per year of CO_2 to the area; the commenter suggests several options for modeling these impacts. Finally, the commenter concludes that if EPA and APC persist in trying to claim that the Project will not significantly contribute to ozone and $PM_{2.5}$ violations, the two parties must prepare an adequate analysis and circulate it for public review and comment.

Response: Our response to comment 13 in Section II.A.1 clarifies that PM_{10} has not been used as a surrogate in this case for $PM_{2.5}$. The rest of the above comments pertain to air quality issues associated with pollutants for which the project location is designated nonattainment. Our responses to comments 8, 11, 12 and 17 in Section II.A.1 explain why these pollutants are not covered by the PSD permit issued by EPA in this instance.

19. **Comment:** The commenter states that neither EPA nor APC has provided any record showing how the offsets obtained for this project will compensate for the Project's impacts. The commenter further states that the District's offset requirements will not prevent the Project from contributing to violations of the ambient air quality standards for $PM_{2.5}$ and ozone. The commenter additionally finds fault in EPA's presumed reliance on the District's NNSR program to satisfy the requirement of CAA section 165(a)(3) with respect to $PM_{2.5}$ and ozone because the NNSR and PSD programs are fundamentally different when it comes to offsets. After a discussion of the method used to calculate the amount of offsets required for NO_x, VOC and PM_{10}, the commenter notes that this calculation includes no analysis of the impact that the project will have on air quality. The commenter goes on to state that for PSD purposes, these emission reduction credits (ERCs) are already reflected in the current ambient air quality concentrations (which the commenter says continue to violate the national standards) used to assess the Project's projected impact and that EPA has not demonstrated how the ERCs can be used to show that the emissions from the project will not cause or contribute to the violation of any NAAQS in the project impact area. Next, the commenter claims that there are temporal and spatial defects with the offsets used for this project, and that even if these defects could be ignored there is still no rational basis for the offsets because the District inappropriately relied on interpollutant trading. Specifically, the commenter takes issue with the 1 to 1 ratio used by the District for the interpollutant trade and claims that a ratio of 40 to 1 should be used unless a demonstration is made that another ratio is locally appropriate. Finally, the commenter states that while EPA could grant APC a PSD permit with a showing that the contributions to ongoing ozone and $PM_{2.5}$ nonattainment concentrations will be offset, no such demonstration has been made and that there is still considerable work to be done on this PSD permit.

Response: Providing Offsets is a requirement of the NNSR program. The NNSR program is administered in this case by the District. As discussed in our responses to comments 8, 11, 12 and 17 in Section II.A.1, section 165(a)(3) of the Clean Air Act does not apply to $PM_{2.5}$ and ozone in this instance and EPA is unable in this PSD permitting action to address the commenter's concerns about the adequacy of any offsets required by the District in its permitting process.

Comments Submitted by Rob Simpson

20. **Comment:** The commenter expresses concern about the public participation process for the proposed permit, alleging that the notice provided to the public did not disclose vital information about the Project's effects on air quality. The commenter states that without a fact sheet or accurate emission data there is too much information for the public to sift through to obtain the relevant information. The commenter further states that if EPA had provided this information or published a fact sheet, EPA may have elicited additional public participation. The commenter then quotes from 40 CFR 124.8(b)(3), regarding the requirement that fact sheets for PSD permits include information concerning the degree of increment consumption expected to result from operation of the Project.

Response: We appreciate the commenter's desire for the public to have adequate information on which to comment on EPA's proposed permitting action for the Project and strive continuously to improve the public notice process. In this case, we believe that EPA provided ample notice to the public through our public participation process, including the documents issued as part of that process, concerning the proposed Project and its air quality impacts.

EPA issued numerous public notices in 2009 pertaining to the proposed permit as well as a detailed AAQIR describing the project. EPA's public notices for the proposed PSD permit for the Project included appropriate information as required by 40 CFR 124.10(d). EPA's AAQIR provided the information required by 40 CFR 124.7; i.e., information describing the derivation of the conditions of the draft permit and the reason for them. The AAQIR incorporated a detailed summary of the proposed project, including its proposed location, its impacts and its control requirements. In addition, during the 2009 information meeting and public hearings, EPA also provided informational sheets for the public that summarized the information in the AAQIR.

The commenter may be arguing in particular that EPA was required to prepare a fact sheet for this action in accordance with 40 CFR 124.8. We disagree that we were required to do so. 40 CFR 124.8 states that in the context of PSD permitting, a fact sheet shall be prepared for every draft permit "which the Director finds is the subject of wide-spread public interest or raises major issues." While EPA did receive numerous comments expressing interest in the project after EPA issued our initial public notice, at the earlier point in time when EPA issued the proposed permit, we were not aware of wide-spread public interest nor did we believe that the proposed permit raised major issues.

We note that, in any case, the AAQIR provides much, if not all, of the information that would otherwise be required in a fact sheet, and provides precisely the type of information concerning air quality impacts of the project that the commenter appears to be concerned about in terms of notice to the public.

We are not entirely clear regarding the commenter's concerns regarding 40 CFR 124.8(b)(3). However, we note that the AAQIR also included information concerning the degree of increment consumption expected to result from operation of the Project, consistent with 40 CFR 124.8(b)(3). Sections 8.3-8.4 on pages 25-6 of the AAQIR make

clear that there is no increment for CO, and that the Project's impacts for NO_2 and PM_{10} are below the SILs. In the event that a source's modeled impacts of a particular pollutant are below the applicable SIL at all ambient air locations modeled, i.e., *de minimis* everywhere, EPA's policy for PSD provides that no further modeling analysis is required for that pollutant. Our longstanding policy under the PSD program is that when a preliminary screening analysis is below the SIL, that analysis is sufficient to demonstrate that the source's emissions throughout the area modeled will not cause or contribute to a violation of the increment, and there is no need for a comprehensive source impact analysis involving a cumulative evaluation of the emissions from the proposed source and other sources affecting the area.

In sum, we disagree with the commenter's assertion that EPA did not meet the requirements of 40 CFR Part 124 in terms of providing appropriate information to the public concerning the Project's effects on air quality.

21. **Comment:** The commenter expresses concern that the title of the Public Notice and the first paragraph of the public notice together could make the public believe that the project will be in Texas and stop reading.

Response: The contents of the public notices issued by EPA for our proposed permit in this case were drafted in accordance with the requirements in 40 CFR 124.10(d). We note that each of these public notices clearly states in one of the first two paragraphs that the proposed Project would be located in Kings County, California, which would eliminate any confusion about the location of the Project. The second paragraph of the public notices issued by EPA describes the specific location and address of the Project, while the first paragraph provides the address of the applicant, in accordance with 40 CFR 124.10(d)(ii) (with the exception of the first notice EPA issued, in which this information was inadvertently omitted).

22. **Comment:** The commenter suggests that the site address should be prominent in the notice as should the effect on air quality: "The metes and bounds site description, as was used in lieu of the actual address in all notices from the CEC, District and the EPA except for these last Notices from the EPA that includes a site address only after the Applicants address and the antiquated site description, does not serve to inform. The Site address should be prominent in the notice as should the effect on air quality." The commenter also notes the CEC's Preliminary Staff Assessment discloses the total maximum annual emissions in tons per year and suggests this information could affect public interest and participation.

Response: We appreciate the commenter's suggestions for improving the public notice, and will consider them for future notices. However, with respect to the issues raised in this comment, we believe that the contents of our public notices for this matter are consistent with the requirements of 40 CFR 124.10(d) as discussed above. We note section 124.10(d) does not require that EPA's public notice provide a detailed description of the project's emissions; however, EPA included that information in our AAQIR for the Project.

23. **Comment:** The commenter states that the following statement, which appeared in our 2009 public notice, is false: "Air pollution emissions from Avenal Energy Project would not cause or contribute to violations of any of the National Ambient Air Quality Standards (NAAQS)."

Response: The statement quoted by the commenter refers to applicable NAAQS for pollutants regulated under the PSD permit. As discussed above, the project demonstrates compliance with the NAAQS that are regulated under this PSD permit. For further information about why PSD permits do not have to demonstrate compliance with the NAAQS for nonattainment pollutants, please see our response to comment number 8, 11, 12 and 17 in Section II.A.1.

24. **Comment:** The commenter states that he has had difficulty getting on EPA public notice lists and asks how the EPA has satisfied the requirements of 40 CFR 124.10(c)(1)(ix), which requires that EPA mail a copy of public notice for activities described in 40 CFR 124.10(a) to persons on a mailing list developed by a number of listed methods.

Response: The commenter is included in the database Region 9 uses for distributing public notices related to PSD permits issued by EPA in California; therefore, as far as we can determine, we sent the commenter all public notices issued by EPA for our proposed permit decision for the Project. We note that Region 9 has mailed, and in some cases, emailed, public notices for this action to an extensive list of interested parties, including all persons who had requested to be on EPA's mail or e-mail distribution list for this PSD permitting action, in addition to other required entities under 40 CFR Part 124. In addition to our existing public notice distribution database, for our second and third 2009 public notice distribution, we provided our public notices to select recipients from the mailing maintained by the CEC for this project as well as to all post office boxes in Kettleman City; we additionally solicited input from other internal EPA Region 9 staff regarding parties that may have an interest in the proposed action. We note that in our 2011 public notice our distribution list included those mentioned above as well as additional parties such as all post office boxes in the city of Avenal, among others. In sum, we believe that our public notice distribution for the Project is consistent with 40 CFR Part 124. EPA notes that the commenter has not stated that he did not receive appropriate public notice for this permitting action.

We note that Region 9 maintains an ongoing notice to the public on our website regarding the opportunity to be placed on mailing lists for information about our permitting actions. This website allows individuals to sign up to receive public notices pertaining to permitting actions of their choosing based on geographic or other criteria. See http://www.epa.gov/region09/air/permit/psd-public-guidelines.html. In addition, Region 9 provided the public with the opportunity to complete a form at the public information meeting and public hearings for this project to be added to the Region's distribution list. Region 9 also has begun to notify members of the public through public notices we issue for PSD permits that they can request to be put on our distribution list for other EPA PSD permitting actions. We ask requestors to notify Region 9 if there is a change in address or

electronic mail address; this notification can be completed by contacting the Region 9 Air Permits Office.

25. **Comment:** The commenter states that it does not appear that organizations like Californians for Renewable Energy (CARE) have been provided notice of these proceedings, although it appears that they have been "participants in past permit proceedings in that [sic] area."

    Response: We appreciate the commenter's concern regarding whether public notice was provided to CARE and other organizations that have been participants in past proceedings in the area. We have added CARE to our distribution list for notices relating to this PSD permit action.

26. **Comment:** The commenter asked for clarification about the District and CEC approval processes for the Project, as well as what authority EPA has over those processes.

    Response: The CEC's licensing process and the District's permitting process for the Project are distinct from this PSD permitting action. However, as discussed previously in an email dated to the commenter dated June 22, 2009 we note that it is our understanding that a power plant over 50 megawatts needs both an approval from the District and the license from the CEC before it can commence construction. We also note that EPA retains oversight authority to ensure compliance with CAA requirements governing new source review, *see* CAA sections 113(a)(2), 113(a)(5), 179(a)(4). But this PSD permitting action is not the appropriate context for EPA to exercise such authority.

27. **Comment:** The commenter states the permit should have a condition that requires fast start technology. The context of this request includes the commenter's perspective that the power plant is being designed to provide base load power in an environment without demand for additional base load power. The commenter identifies operating facilities that he says received modified permits "to function more like load following peaker type plant [sic] despite the slow start design flaw that results in higher emissions and lower efficiency during startup than a facility designed for peak use." The commenter further states that "to license the facility with the intent to change its operating profile after its [sic] built would be considered a 'sham permit.' "

    Response: EPA agrees with the commenter that, consistent with BACT requirements, the permit should require the shortest start-up/shutdown times possible so as to minimize the Project's emissions. We have revised the startup/shutdown conditions for the permit under Condition X.D.3 to require shorter startup/shutdown durations. See our response to comment 49 in Section II.A.1. The commenter has not explained how fast start would be appropriate for the Project or how fast start would impact the Project's emissions.

    With regard to the commenter's concern about the potential for a sham permit, it is unclear to EPA what the basis is for the commenter's assertion that the Project plans to change its profile after it is built. This Project is being permitted based on its maximum potential to emit. While a load-following facility may have more transient episodes than a baseload

facility, the Project will still have to comply with its hourly and annual emissions limitations. Furthermore, it is important to note that if the Project proponent changes the way in which it wants to operate the permitted facility, that change in operations may trigger the need for additional PSD review, depending on the nature and magnitude of the change.

28. **Comment:** The commenter asks how EPA considered the energy line loss associated with the hundreds of miles that the energy would likely have to travel to a load center. As context, the commenter states that the plant does not have a power purchase agreement identifying where the power might be used.

Response: Because the commenter has not illustrated how this is a relevant consideration to EPA's decision to issue this PSD permit under applicable criteria in the CAA and EPA regulations, EPA did not consider the energy line loss. Although "energy impacts" are a consideration in the BACT analysis, the commenter has not shown how "energy line loss" is relevant to the selection of the BACT in this instance. Further, since the commenter has not shown how the prevention of energy line loss or the absence of a power purchase agreement relates to an air quality objective, these subjects are outside the scope of relevant considerations under section 165(a)(2) of the Clean Air Act. *Prairie State*, 13 E.A.D. at 30.

29. **Comment:** The commenter asks whether EPA considered construction and commissioning period impacts, GHGs, the energy used to pump the water through the California Aqueduct to the Project, as well as the impacts of the water use on soils and vegetation and biological resources.

Response: With respect to the energy used to pump the water through the California Aqueduct to the Project, and impacts of water use on soils and vegetation and biological resources, the commenter has not illustrated how these subjects are relevant to EPA's decision to issue this PSD permit under applicable criteria in the CAA and EPA regulations. The comment has not explained how EPA's BACT analysis should be influenced by these considerations. EPA's additional impact analysis focuses on impacts associated with emissions from the source of pollutants regulated under the PSD permit from the source.

With regard to the impacts associated with construction, we note that the impacts of these emissions are temporary in nature and are not included in modeling under PSD regulations at 40 CFR 52.21(i)(3), which state:

> (i) Exemptions . . .
>
> 3) The requirements of paragraphs (k), (m) and (o) of this section shall not apply to a major stationary source or major modification with respect to a particular pollutant, if the allowable emissions of that pollutant from the source, or the net emissions increase of that pollutant from the modification:
>
> (i) Would impact no Class I area and no area where an applicable increment is

known to be violated, and

(ii) Would be temporary.

In this case, as explained in EPA's AAQIR, the Project's emissions would not impact any Class I area, and would not impact any area where an applicable increment is known to be violated. In addition, construction emissions from the source would be temporary in nature. Therefore, in accordance with 40 CFR 52.21(i)(3), construction impacts were not included in EPA's modeling analysis for the Project. However, we note that the Applicant did provide information concerning construction impacts to the District, and that information was included as a part of the PSD permit application. The information provided indicates that the air quality impact of the Project's construction emissions would be less than that during normal operations for CO, slightly higher than those during normal operations for PM_{10} (4.7 µg/m^3 vs. 2.9 µg /m^3), but still below the SILs, and slightly higher than those during normal operations for annual NO_2, but well below the NAAQS (though slightly higher than the SILs).

With regards to the one-time commissioning scenario, the air quality modeling for the applicable pollutants and standards does include the maximum emissions during the commissioning year as well as emissions during startup, shutdown and normal operations.

Finally, EPA's position regarding the applicability of BACT requirements for GHG for the Project is discussed in detail in our Supplemental SB and our responses to the public comments we received on the Supplemental SB in Section II.B.1 of this document.

30. **Comment:** The commenter states that EPA's AAQIR should not rely on the District evaluation as it was not vetted in public scrutiny. Further, the commenter states that to the extent EPA relies on the District's findings, EPA should also respond to the commenter's complaint regarding the lack of opportunity for public participation in the District's proceedings, attached to the comments.

Response: EPA reviewed a number of documents to make sure that the emissions estimates and other data we used for the Project were consistent with other documentation related to the Project, including documents prepared by the District. However, EPA did not rely solely on information provided by the District for our analysis. Further, we are not aware of any inaccuracies in the information provided by the District that is relevant to our analysis, nor does the commenter identify any. While we also believe in the value of public participation, the commenter's concerns about the District's public participation process for its NNSR permit are not matters covered by the criteria applicable to EPA's decision on this PSD permit application.

31. **Comment:** The commenter expresses concerns about the Applicant's use of EPA's guidance document, "Screening Procedure for the Impacts of Air Pollutions Sources on Plants, Soils and Animals." The commenter states that this document appears outdated and that another PSD permitting action for a different facility has more contemporaneous information. The commenter further states that the soils analysis appears inadequate.

Response: As the AAQIR makes clear, in addition to using the 1980 Screening Procedure, the applicant also conducted further analysis and provided additional site-specific information concerning the Project's potential impacts on soils and vegetation. See AAQIR pp. 27-8; PSD permit application at pp. 6.4-8 – 6.4-9; and biological resources CEC section 6-6 submitted as part of the biological assessment for EPA's Endangered Species Act (ESA) Section 7 consultation for the Project. After reviewing this information, Region 9 concluded that we did not expect any adverse impacts on plants and soils as presented in Table 9-1 of the AAQIR. The commenter provides no site-specific concerns that call into question either the information presented by the applicant or EPA's conclusion. EPA believes that the soils and vegetation information presented by the applicant is sufficient and that EPA's conclusions are sound.

32. **Comment:** The commenter quotes the growth analysis in the AAQIR and states that it does not demonstrate how an additional 600 MW facility fails to cause significant growth, and requests that EPA take Administrative Notice of the CEC proceedings. The commenter further references the CEC proceedings and states that the siting of the Project alone constitutes a land use change from farming to industrial, and that its development is expected to result in further industrial development around the site. The commenter states that excerpts from the CEC Evidentiary Hearing (July 7, 2009),[10] which are included as part of the comment, demonstrate that the project is specifically planned to cause growth. The commenter states that the cumulative effects of the planned industrial area should be considered and that EPA should recognize the growth planned as a result of this siting.

Response: EPA has previously interpreted section 52.21(o) to call for consideration of emissions generated by growth that will occur in the area due to the source. NSR Workshop Manual at D.1 – D.4. In conducting this review, we focus on residential, commercial and industrial growth that is likely to occur to support the source under review. Such an approach is consistent with that described in EPA's 1990 NSR Workshop Manual, which we believe is persuasive on this point and, which we have determined is appropriate to follow here. As discussed in Section 9.3 of the AAQIR, EPA reviewed relevant information contained in the CEC docket that was also provided by the Applicant as part of the PSD permit application. Considerations included information about existing population, economic information, housing, schools and public services. Descriptions also include the potential impacts of construction and operations and maintenance-related activities, such as projected work force and fiscal resources. Thus, we believe that EPA's growth analysis, as summarized in EPA's AAQIR, considered the relevant information and leads to the conclusion that the project will not cause significant growth in the area. As a result, EPA did not conduct further analysis associated with growth caused by the project

We also disagree with the commenter's assertion, as supported by his citation to the CEC record, that we should consider as part of our analysis the cumulative effects of planned industrial growth unconnected to the Project that may be somewhat more likely to occur

[10] EPA has considered the specific portions the CEC proceedings presented and discussed by the commenter in his comment. The commenter did not explain the relevance of his request that EPA take administrative notice of the CEC proceedings to the topic at issue or identify how additional portions of the CEC proceedings might be relevant.

merely by virtue of the fact that the Project is to be sited in a particular location that is currently used as farmland.

33. **Comment:** The commenter states that it appears the additional electricity on the grid could cause growth in distant areas and interfere with the development of cleaner energy resources.

    Response: To the extent that the commenter is arguing that the Project's addition of more electricity to the power grid should be considered in EPA's growth analysis for the Project, EPA disagrees, for the reasons discussed in the response to comment 32 in Section II.A.1 concerning the appropriate scope of analysis. In addition, we note that the commenter has not provided any specific information to support the notion that adding electricity to the grid from the Project would result in growth in distant areas. Indirect impacts such as those raised by the commenter are under State and local planning jurisdictions.

34. **Comment:** The commenter states that the time period for a decision on the application seems to have expired. The commenter further states that if the Project had been permitted when the application was received, the permit would have expired by now. The commenter further states that the EPA should only act favorably on contemporaneous applications.

    Response: While EPA agrees that the one-year period established by CAA section 165(c) for issuing a permit decision has passed, given the fact that the permit application for the Project was determined complete in March 2008, EPA disagrees that this situation in and of itself provides a basis on which EPA should not "act favorably" on the permit application. EPA has processed this permit application as quickly as practicable under the particular circumstances surrounding the permit application. While Congress set a one-year deadline to issue or deny a permit from the time that an application is deemed complete, there are instances in which the process is complex and will require more time to complete. Our decision whether to issue a permit is based on whether the permit meets applicable substantive legal requirements; there is nothing in the CAA or our implementing regulations that indicates that passage of the one-year deadline alone determines permit approvability. *See, Hancock County v. EPA*, 1984 U.S. App. Lexis 14024, 22 ERC 1714 (6th Cir. 1984).

    We also disagree, for several reasons, with the commenter's argument that if the permit had been issued when the application was received, it would have expired by now. Among these reasons is the fact that EPA must follow the relevant statutory and regulatory processes for issuing PSD permit decisions and it often takes time for EPA to carry out those processes.

35. **Comment:** The commenter states his intent to incorporate the attached CEC Staff Assessment, Complaint and rebuttal testimony in a series of emails. The commenter provided more than thirty attachments composed of more than 1400 pages. The commenter also provided information relating to the Tracy power plant that he states is relevant to the AEP.

Response: EPA acknowledges the commenter's documents provided as attachments to his email transmittals and has included the attachments as part of the commenter's comments in the record for this action. The commenter, however, has not explained with any specificity the relevance of these attachments, which were created in the context of permitting matters separate from the proposed PSD permitting action for the Project. Therefore, EPA cannot provide a detailed response. We note, however, that where the text of the commenter's comments raise specific arguments concerning an attachment, we have responded to those comments elsewhere in this document. The commenter also did not explain the relevance to EPA's PSD permitting action for the AEP of the information regarding the Tracy power plant, and therefore EPA cannot provide a detailed response as to this issue.

Comments Submitted by Sierra Research for APC (the Applicant)

36. **Comment:** The Applicant states that the maximum rated heat input of each gas turbine is 1,856.3 MMBtu/hr rather than 2,356.5 MMBtu/hr, while clarifying that each duct burner has a maximum rated heat input of 562 MMbtu/hr. The maximum heat input of each power train (combustion turbine generator plus duct burner) is 2,356.5 MMBtu/hr.

    Response: We have made the requested correction in the equipment list for Unit IDs GEN1 and GEN2. The maximum rated heat input for the duct burners was correctly stated in the proposed permit and has not been changed.

37. **Comment:** The Applicant noted that the proposed natural gas-fired emergency generator engine will be a lean burn engine. Therefore, the emission control system is a three-way catalyst system, which controls NO_x, VOC and CO emissions. The control system will not be an NSCR (non-selective catalytic reduction) system, which controls only NO_x emissions and is typically used for rich-burn engines.

    Response: In order to assist with the development of an accurate and enforceable permit, on May 6, 2010 EPA held a conference call with Applicant to discuss this issue and the issues raised in several of the following comments. APC followed up the conference call with a letter dated May 11, 2010 providing specific information about the emergency generator engine. In its letter, APC stated that the engine would be a lean burn engine with a post combustion integrated Miratech SCR/oxidation catalyst system. We have revised the language in the final permit to reflect the final equipment selection. See the following sections of the permit: (a) project description, (b) the equipment list, (c) Condition X.B (Air Pollution Control Equipment and Operation), and (d) Condition X.E.1 (Auxiliary Combustion Equipment Emission Limits). We note that the emission limits for this unit are unchanged, except for CO, which has been lowered from 0.6 g/bhp-hr to 0.21 g/bhp-hr (see Condition X.E.1). We also note that the exhaust and stack parameters will remain the same.

38. **Comment:** The Applicant stated that the averaging period for the CO limit for the gas turbines should be 3 hours instead of 1 hour. The Applicant noted that it has not requested a change from the 3-hour averaging period established in the District's Final Determination

of Compliance for the Project. The Applicant also stated that the CO emission limit should be 10.60 pounds per hour instead of 13.55 pounds per hour.

Response: The Applicant has not provided a sufficient basis for its request for a 3-hour averaging period and we continue to believe that a 1-hour averaging period is appropriate. The permit remains unchanged in this particular respect. With respect to the CO emissions limits, we first note that the 13.55 lb/hr limit reflects a typographical error and we have made the correction requested by the Applicant. In addition, as discussed in our response to comment 9 in section II.A.1, we have determined that compliance with a CO limit less than 2.0 ppmv appears to be achievable without duct burning and we have further revised the permit to reflect that determination. See our response to comment 9 for further information.

Conditions under X.C.1 have been revised, and Condition X.C.3 has been added accordingly in the final permit.

39. **Comment:** The Applicant stated that the annual restrictions on usage of the duct burners and the auxiliary boiler should be based on annual heat input rather than on annual hours of operation since all annual emissions calculations in the application and ambient air quality analysis are based on heat input. Specifically, the Applicant points out the following:

    1. For the duct burners, the application and ambient air quality analysis are based on a heat input in MMBtu, high heating value (HHV). The restriction on usage should be revised to 449,800 MMBtu/year, based on 562.26 MMBtu/hr for each duct burner and not more than 800 hours per year operations for each duct burner; and

    2. For the auxiliary boiler the application and ambient air quality analysis are based on a heat input in MMBtu (HHV). The restrictions on usage should be 46,675 MMBtu/yr, based on a boiler rating of 37.4 MMBtu/hr and 1,248 hours per year operations.

    It should be noted that the Applicant further refined the heat input of the duct burners to 562.26 MMBtu/hr (compared to the original 562 MMBtu/hr), which is consistent with what was assumed in the emission estimates.

    Response: In the interest of developing an accurate and enforceable permit, on May 6, 2010 EPA held a conference call with the Applicant to discuss this issue. In addition, APC followed up the conference call with a letter dated May 11, 2010 providing specific clarification about the request for fuel-based limits. We agree that this change is appropriate and we note that it will not affect the emissions limits or the Project's modeled air quality impacts.

    Accordingly, the following sections of the permit have accordingly been revised as a result of this comment: the equipment list, (b) Condition X.C.2, (c) Condition X.E.1, and (d) Condition X.H.2.

40. **Comment:** The Applicant requested that Special Condition X.B be revised. The Applicant interpreted this condition to require the SCR and oxidation catalyst emission control systems to be installed and operational prior to initial startup, as defined in 40 CFR 60.2. 40 CFR 60.2 defines "startup" as "the setting in operation of an affected facility for any purpose." However, as discussed in the permit application (section entitled "CTG Emissions During Commissioning" on page 6.2-47), the Applicant stated that the gas turbines and HRSGs must undergo a commissioning period during which the units must be operated without emission controls to prevent damage to those systems.

    Response: The intent of Condition X.B is to assure that the air pollution control devices are fully operating and maintained at all times before the Project commences commercial operations but we agree that Condition X.B should be revised to account for the commissioning period, which is also referred to as shakedown, as referenced in Condition X.J. We have revised Condition X.B accordingly. We have further added in Condition X.J that the shakedown period shall be limited to no more than 90 days.

41. **Comment:** The Applicant noted that the definition of startup in Condition X.D.1.a ("…startup occurs when a CTG has not been in operation during the preceding 48 hours") may be interpreted as occurring only if a turbine has been shut down for 48 hours or more. The Applicant further suggests that the definition be revised so it is identical to the District's FDOC condition regarding startup and shutdown.

    Response: EPA agrees that the provision at issue may be misinterpreted as described by the Applicant. Therefore, the permit conditions will be clarified as follows. The current definition of startup in Condition X.D.1 will be retained, and Condition X.D.1.a will be deleted. Condition X.D.1.b (the definition of shutdown) will be renumbered as Condition X.D.2 resulting in the revised numbering of Condition X.D from X.D.1-5 in the Proposed Permit to X.D.1-6 in the Final Permit. All references to Condition X.D in other permit conditions have also been revised, accordingly. This includes updating references under the following conditions: Condition X.D.6 (originally Condition X.D.5) has been revised to reference X.D.3 rather than X.D.2, and Condition X.F.13.b has been revised to reference X.D.6 rather than X.D.5.

42. **Comment:** Condition X.E.2 prohibits simultaneous operation of the auxiliary boiler with the gas turbines. The Applicant requested that this condition be deleted because it is not practical to ensure the boiler is completely shut down at the moment of turbine startup.

    Response: We have revised Condition X.E.2 in the Final Permit to clarify that the auxiliary boiler shall not operate during normal operation of the gas turbines except during periods of, or immediately following, startup. We have further revised this condition to clarify that the boiler must be shut down as soon as practicable after the completion of any startup process. We note that the ambient air quality modeling analyses for NO_2, CO and PM_{10} conservatively included operations of the auxiliary boiler concurrently with startup and normal operations of both gas turbines, the emergency generator and the diesel-fueled emergency fire water pump.

43. **Comment:** The Applicant noted that Condition X.F.1 requires that the continuous emissions monitoring systems (CEMS) be certified before commercial operations, but the permit does not include a definition of the term "commercial operations." The commenter suggested adding the definition in the acid rain requirements to clarify the CEMS certification timing requirements. The applicant further suggested revised language for Condition X.F.1 to clarify the timing of commencing commercial operation.

Response: EPA's intent is for the CEMS to be certified prior to commencing commercial operations. We agree with the suggested change in this regard and have clarified in Condition X.F.1 that the phrase "commence commercial operation" is defined as it is in 40 CFR 72.2. Specifically, this definition states - "*Commence commercial operations* means to have begun to generate electricity for sale, including the sale of test generation." We have also revised Condition X.B accordingly, because Condition X.B also pertains to the timing of the use of the control equipment.

It is our intent for the CEMS to be installed on each of the turbines prior to first fire, and thereafter maintained, operated and calibrated, accordingly. Therefore, EPA has also made additional changes to Condition X.F.1 to clarify our intent in this regard, in lieu of some of the changes suggested by the Applicant.

44. **Comment:** The Applicant states that, as written, the permit requires the NO_x and oxygen (O_2) CEMS to meet specific requirements of 40 Part 60 Appendices B and F. The applicant requested that the permit be revised to enable the NO_x and O_2 CEMS to utilize the requirements of Part 75 as allowed by the applicable New Source Performance Standards at 40 CFR 60.4345.

Response: EPA has reviewed the relevant applicable requirements in light of our interest in issuing an accurate and enforceable permit that does not raise operating costs unnecessarily. Because Part 60 Subpart KKKK allows the option of using Part 75 to comply with the requirements of 40 CFR 60.4345, we agree with the request and are making revisions to the following sections of the permit: (a) the reference to Part 60 will be replaced with Part 75 in Condition X.F.2; and (b) the reference to Part 60 for NO_x and the diluent (O_2) in Condition X.F.8 will be replaced with Part 75 and also reference diluent CO_2.

45. **Comment:** The Applicant requested that, because the potential to emit PM and PM_{10} emissions from the auxiliary boiler (Unit D1) are minimal (less than 0.25 tons per year), the initial and annual source testing requirements for PM and PM_{10} emissions from Unit D1 be eliminated.

Response: On May 6, 2010 EPA held a conference call with the applicant to discuss this issue. We acknowledge that Unit D1's potential to emit PM/PM_{10} is less than one ton per year, which contributes to the annual facility emission limits in Condition X.A.1 of not more than 80.7 tons per year of PM and of PM_{10}. While we agree that the unit is very small, we do not agree that we should eliminate the testing requirement altogether as suggested by the Applicant. In the interest of issuing an accurate and enforceable permit

that does not raise operating costs unnecessarily, we have reviewed requirements in prior PSD permits for similarly-sized combustion equipment at power plants, and we agree that testing does not need to occur annually, given the size of the boiler. Therefore, we are revising the permit to allow for testing every five years after the initial source test, rather than annual testing after the initial source test. We have made changes consistent with this approach in condition X.G.1.a.ii of the Final Permit.

In reviewing this portion of the permit, we noted that we inadvertently omitted emissions limits for this emission unit in the proposed permit. Thus, we are also making an administrative correction by adding a PM/PM_{10} emissions limit of 0.0034 gr/dscf for the unit, consistent with the permit application, under Condition X.E.1 in the final permit.

46. **Comment:** With regard to Table 7-1 of the AAQIR, the Applicant requested that we a) correct statements pertaining to the CEMS to reflect the provisions of 40 CFR 60 Appendix B and Appendix F, which require quarterly cylinder gas audits (CGAs) and annual relative accuracy test audits (RATAs), and b) eliminate the requirement for annual performance testing for NO_x and CO emissions from the gas turbines/HRSGs since these units will be monitored continuously, and the Applicant will be required to perform initial certification tests, quarterly CGAs and annual RATAs on the CEMS.

Response: EPA agrees with the concept of the comment. We note, however, that modification of the permit is unnecessary because Condition X.F already includes requirements for the quarterly CGAs and annual RATA, and Condition X.G.1.f includes an option to request waiver of a specific annual test after the Project is in operation and after the initial source test has been performed.

47. **Comment:** With regard to Table 7-1 of the AAQIR, the Applicant requested that we change the 1-hour averaging period for NO_x and CO emissions from the auxiliary boiler to 3 hours since compliance will be determined through source testing, which will involve the average of three test results. The commenter also noted that the BACT analysis does not make any findings regarding the averaging period in establishing BACT for NO_2 and CO from the auxiliary boiler.

Response: We agree with the Applicant regarding compliance demonstration of the NO_2 and CO emission limits through performance testing and we have revised Condition X.E.1 to include a 3-hour averaging period.

48. **Comment:** The Applicant noted an error in Table 7-1 of the AAQIR regarding the PM and PM_{10} emission limit for the natural gas-fired IC engine. The applicant stated that the emissions limit should be 0.34 g/hp-hr instead of 0.034 g/hp-hr.

Response: EPA agrees with the Applicant's correction. We note that the correct limit is already reflected in Condition X.E.1 of the permit. Thus, no change to the permit is necessary.

49. **Comment:** The Applicant commented that combined "startup/shutdown" duration does not seem meaningful, given that a shutdown may not occur until days or weeks before or after a startup. The Applicant stated that it is not clear how such a limit would be interpreted, monitored, or enforced. The Applicant requested that the reference to "startup/shutdown" be replaced with "startup" only in the second table of Condition X.D.2.

Response: In the interest of developing an accurate and enforceable permit, on May 6, 2010 EPA held a conference call with the applicant to discuss this issue. The relevant provisions of the table at issue from the proposed permit are presented below for convenience.

	Event Duration	**Annual Limit for Both CTG Combined**
Each CTG and HRSG Startup/Shutdown	6.0 hours	1,248 hours/yr
Each CTG and HSRG Shutdown	2.0 hours	

It is our understanding that APC will minimize the duration of startups and shutdowns as part of BACT for NO_x and CO emissions. The 6.0 hour event duration limit in the proposed permit covered the duration of each startup period for a CTG combined with the duration of the subsequent shutdown period for that CTG. We have considered the applicant's request and reviewed permit requirements for similar facilities, and on that basis we have made revisions to the permit conditions, as follows. We will decouple the startup and shutdown limits, as requested by the applicant. In addition, the event duration for startup will be changed from 6 to 4.5 hours and the event duration for shutdown will be changed from 2.0 to 0.5 hours, as was required in the recent PSD permit issued by EPA for the Colusa Generating Station. These changes are reflected in Condition X.D.3 of the final permit.

Comments Submitted by Ruthie Gilmore

50. **Comment:** The commenter states that an affected population in the area of the proposed facility includes approximately 7400 men at the Avenal State Prison. The commenter states that the prisoners should have an opportunity to respond to the proposed siting of the facility which poses a threat to their health. The commenter notes that most prisoners come from low-income communities that are identical to communities where EJ has its roots, and states that given the prisoners' immobility, perhaps a public hearing should be held there at the prison.

Response: We appreciate the commenter's input concerning the nearby prison population. Inmates at the Avenal State Prison may obtain access to newspapers, including the ones in which we published our public notices. As a result, we believe the inmate population at the prison had the same opportunity as the general public to receive notice of our proposed action. Although inmates at the prison may not have been able to attend our public

information meeting or public hearings, they had the opportunity to request information and submit written comments on our proposal by mail, as could members of the general public who may have had difficulty attending the public meetings. Please see our response to comment 3 in Section II.A.1. above. We believe that our public participation process was appropriate to address this commenter's concerns, and will continue to consider whether there are additional ways in which we can enhance our public involvement process in this regard for future permitting actions.

2. Comments Received at EPA's October 1, 2009 Public Hearing

1. **Comment:** Several commenters at EPA's October 1, 2009 public hearing expressed support for the project. The commenters noted the following considerations as the basis for their support:
    - The community suffers from 25.7% unemployment and this project would help the state economy and contribute to local economic growth by employing around 300 people during construction and another 26 people permanently;
    - The Project site was well chosen as it will have easy access to water, natural gas and the electricity grid, and may serve as an anchor to a new industrial park;
    - The Project will add to the tax base;
    - The Project will provide needed electricity to the grid;
    - The Project will emit less pollution than older plants; and
    - The Project reflects environmental sensitivity and stewardship for the land.

    Response: EPA acknowledges the commenters' support for the Project.

2. **Comment:** Multiple commenters stated that a new power plant is not needed in the area where the Project would be located. One commenter who also submitted written comments asked why a rural area in particular would need 600 MW of new fossil fuel generation. Referencing a 2003 study by LBNL, which this commenter says deserves special consideration, the commenter argued that new natural gas-fired power plants are not needed in California. The commenter says the Avenal project is in direct conflict with AB32 and the State's renewable portfolio standard, which the commenter noted was recently raised by the California Governor to a level of 33%. The commenter also says that the project would put the health of Avenal citizens at risk by negatively impacting the region's air basin and that the 26 jobs to be created by the Project are not worth the impacts on air quality. The commenter stated that areas that are investing in "green collar jobs" such as solar panel manufacturing, installation and efficiency technologies have had an economic boom, and that the 26 jobs are negligible in comparison to what the region could do.

    Another commenter reiterated these comments and questioned how many of the 26 permanent jobs at the plant would be available to Avenal residents. This subsequent commenter further stated that a solar farm would be a logical alternative because it would

not have the same level of criteria pollutant and CO_2 emissions but it would still create jobs.

Response: With regard to the comments pertaining to the need for the Project, the 2003 LBNL study, the State's renewable portfolio standard, concerns that the immediate area would not benefit from the electricity generated by the Project, and concerns regarding impacts on air quality, see our responses to comments 6 and 7, respectively, in Section II.A.1.

To the extent the commenters argue that a solar facility would be a preferable alternative, please refer to the discussion in response 7 in Section II.A.1 concerning the need for a natural gas-fired facility versus a renewable energy facility.

With respect to the comment regarding AB32, we note that this is a State requirement and it is not applicable to EPA's decision to issue this PSD permit. Furthermore, EPA has determined that the Project's GHG emissions are not subject to PSD requirements for the reasons set forth in our Supplemental SB for the Project and further elaborated on in our responses to comments 1-10 in Section II.B.1.

Finally, the commenter has not illustrated how the impact of the Project or alternatives thereto on the local job market or economy are relevant to EPA's decision to issue this PSD permit under applicable criteria in the CAA and EPA regulations.

3. **Comment:** One commenter expressed his opinion that the 2009 public information meeting and public hearing were poorly attended and suggested that for future events, EPA consider placing a one-page flyer in local residents' utility bills because announcements in the newspaper can be easy to overlook.

   Response: EPA believes that transparency, access to information and the ability of the public to participate in the decision making are important and valuable elements of our permitting process. We appreciate the commenter's suggestion and will consider it further. We do note, however, that EPA is required to follow certain regulatory procedures concerning public notice of proposed permitting actions at 40 CFR 124.10, which include, among other things, a requirement to notify the public of proposed actions by publication of a notice in a daily or weekly newspaper within the area affected by the Project. EPA issued the appropriate notices in newspapers, provided mail and email notices to extensive lists of stakeholders, posted notices on our website and provided information to libraries in the area. See Section I.B and our responses to comments 1, 2, 3, 20, and 24 in Section II.A.1 for more information regarding our public involvement process.

4. **Comment:** One commenter expressed surprise that EPA did not coordinate with the CEC to identify people who commented at the CEC hearings so we could notify these people of our public hearing.

Response: EPA appreciates the commenter's suggestion. EPA's procedures for providing the public with notice of our proposed PSD permitting actions are set forth at 40 CFR Part 124. Among other things, Part 124 specifies who should receive notice of a proposed action. In addition to sending the notice to the required parties, EPA also sent copies of our notices to select recipients from the mailing list maintained by the CEC for this project. In addition to that, we coordinated with other offices internal to EPA Region 9 to identify other parties in the nearby City of Avenal who may have been interested in our permitting action. See Section I.B and our responses to comments 1, 2, 3, 20, and 24 in Section II.A.1 for more information regarding our public involvement process.

3. Comments Received at EPA's October 15, 2009 Public Hearing

1. **Comment:** A few commenters at the hearing expressed (both orally and in written comments) support for the project because the plant will provide jobs and other [unspecified] benefits to the community, provide needed energy and will not emit significant amounts of pollution, particularly in comparison to older power plants and the emissions from traffic on I-5.

   Response: EPA acknowledges the commenters' support for the Project.

2. **Comment:** Several commenters stated that the project area is an environmental justice community, and without the additional emissions associated with the Project, the area is already overburdened by impacts from existing air pollution, pesticides, a landfill and energy production. One commenter in particular stated that five of the six congressional districts in the San Joaquin Valley rank among the lowest with respect to income, education and health.

   On the subject of health, multiple commenters expressed concern about the emissions from the Project and the associated health impacts such as asthma, impaired lung development, impaired lung function, cardiovascular disease, stroke and premature death. One commenter stated that the San Joaquin Valley has the highest rates of asthma and that many families do not have health insurance. Another commenter provided information about a recent stillbirth in Kettleman City, and multiple commenters noted the recent number of stillbirths, birth defects and cancer clusters in the area. Another commenter stated that we are encouraging children to be physically active to prevent obesity and diabetes but at the same time, children cannot be active outdoors because of poor air quality.

   One commenter stated that EPA cannot proceed with the permitting of the Project until pollution is ruled out as a factor in negative public health effects and outcomes within the environmental justice communities of Kettleman City, Huron and Avenal. This commenter stated that EPA should investigate the health effects further by conducting an analysis that includes community health surveys and discussions with local residents. This group of commenters generally stated that it would be irresponsible and disrespectful to permit another large source of emissions such as the Project in the area.

Response: Regarding the comments that the community is already burdened by a number of other impacts and that EPA cannot proceed with the permit for the Project until pollution is ruled out as a factor in negative public health effects, see our response to comment 23 in Section II.B.1 and our response to comment 4 in Section II.A.1.

Regarding the comment about children not being able to be active outdoors, we note that the permit decision at issue here pertains to emissions of pollutants for which the project area meets (or is unclassifiable for) our health based air quality standards. As discussed in our responses to comments 8, 11, 12 and 17 in Section II.A.1, a separate permitting process conducted by the District governs the nonattainment pollutants in the San Joaquin Valley. In addition, EPA, the State of California and the District are working diligently through the ongoing State/District air quality planning process to address the nonattainment pollutants in this area. See the response to comment 29 in Section II.B.1.

3. **Comment:** The commenter stated that the Project did not appear to be an economically feasible option for the project area. The commenter further stated that the power plant is not going to create jobs for residents in the area, as employees would come from elsewhere, and will only create pollution problems for the area. The commenter suggested that the community should instead provide jobs related to clean energy.

   Response: The economic feasibility of a proposed project and its implications on the local job market are outside the scope of the considerations EPA may make when determining whether or not to issue a permit under the PSD program. In addition, the types of industries and jobs a given community seeks to attract are also not matter over which EPA has authority.

4. **Comment:** Several commenters state that Avenal does not need 600 MW of energy and that the plant should be located where the power is needed or in less populated areas.

   Response: The selection of sites for individual power plants is generally an issue of state and local land use planning. Siting is not addressed in the federal PSD permitting process unless raised as an "alternative" or "other appropriate consideration" by a commenter under CAA section 165(a)(2). The commenter does not seem to suggest that we consider alternative project sites under section 165(a)(2) here. Even if the commenter did intend to suggest that, this comment does not provide enough information for EPA to make a reasoned determination on this issue and EPA is not required to conduct an independent analysis of alternatives (see our response to comment 34 in Section II.B.1). See also our discussion of project need in our response to comment 7 in Section II.A.1 above.

5. **Comment:** One commenter states that the District's permitting process and the CEC's licensing process violate the Executive Order on Environmental Justice to provide materials in Spanish and to give proper notification to the public.

   Response: EPA understands the importance of providing the public with adequate notice about permitting activities and we appreciate the commenter's concern. However, the

commenter submitted this comment in response to a public notice issued by EPA regarding our own permit for the Project, which is independent of the processes governing the permit issued by the District and the license issued by the CEC. As a result, we do not believe the concerns raised by this comment suggest that our own permit is flawed.

6. **Comment:** One commenter states that that EPA's hearing for the Project occurred within the same time period as other hearings related to the Project and hearings related to other matters. The commenter states that the timing did not encourage as much public involvement as possible as required by the Executive Order on Environmental Justice. The commenter requested that EPA extend our process by another 60 days. Another commenter also requested an extension of the public comment period and asked that an additional public hearing be held in Kettleman City.

   Response: Our responses to comments 1 and 2 in Section II.A.1 of this document address this issue.

7. **Comment:** One commenter asserts that EPA did not conduct a proper top-down BACT analysis. In particular, the commenter states that the BACT analysis prepared by the permit applicant for the PSD permit was conducted according to the District's BACT rules, which are different than the federal top-down BACT guidelines. The commenter also says that EPA merely agreed with what the applicant proposed and the commenter disputes a statement made by EPA that the controls for the Project are similar to those that achieve LAER. On this point, the commenter says there are a number of control technologies that could be used at the Project but are not because the applicant and EPA determined they were too costly.

   With regard to the controls EPA is requiring, the commenter asserts that 2.0 ppm is not BACT for CO because lower emission rates have been achieved and that other control technologies such as a thermal oxidizer or regenerative thermal oxidizer (RTO) could be analyzed. With respect to PM, the commenter states that EPA is only requiring the use of natural gas as BACT but electrostatic precipitators or baghouses could be used and should be evaluated in the BACT analysis.

   This commenter also noted that the PSD permit does not address GHG emissions, which are subject to regulation under the CAA, and which therefore must be controlled by BACT.

   Response: Our response to comment 9 in Section II.A.1 addresses the comment about our adherence to the top-down BACT process.

   With respect to the comment that our BACT analysis is flawed because we did not consider controls for CO and PM emissions such as a thermal oxidizer, an electrostatic precipitator, or a baghouse, we disagree. The commenter has not shown that it is technically feasible for the Project to install such controls. Since we are not aware of any combustion turbine that is equipped with the controls suggested by the commenter, it not clear this has been demonstrated in practice on the type of source at issue here. We also note that the

commenter did not provide any such examples for us to consider or other information to suggest that such technologies might be applicable to a combustion turbine.

The issue of BACT for GHG emissions is addressed in our Supplemental SB for the proposed permit and our responses to comments 1-10 in section II.B.1 of this document.

8. **Comment:** One commenter spoke about the issue of interpollutant trading, including the project's use of a one-to-one ratio to offset PM emissions with SO_2 emissions. The commenter stated that EPA itself recognizes a ratio of 40-to-1 is more appropriate. The commenter further noted that the health effects of SO_2 and PM are very different and that reducing SO_2 is not going to have the same health impact as it would if there was direct PM mitigation. The commenter finally stated that there is no evidence in the permit record that proves PM and SO_2 reductions will be equal. The commenter therefore concludes that the PSD permit is not legally sufficient and that EPA should look at the Project in a broader context considering the hazardous waste facility and cumulative impacts. The commenter also requested that EPA review the District's NSR permit.

   Response: PM offsets are not required under the PSD permitting program. Our responses to comment 8, 11, 12 and 17 in Section II.A.1 address this issue. Our response to comment 12 in Section II.A.1 addresses the concern about interpollutant trading for PM and SO_2 emissions. Our response to comment 23 in Section II.B.1 addresses the comment that EPA should look at the Project in a broader context considering the hazardous waste facility and cumulative impacts.

9. **Comment:** One commenter asked whether the plant would be sited in the proposed location because there is a concentration of Hispanic people in the area. The commenter stated that there is great pollution already in the area of Kettleman City, and raised a concern about possibly polluted soil and vapors near the dump. The commenter stated his concern about adding more contamination in the area, and suggested that the socioeconomic status of the population in the area made it difficult for people in the area to exert influence to locate the plant elsewhere. The commenter asked for EPA to consider looking for another area to locate the project far away from Avenal.

   Response: Regarding the commenter's concern about the burden due to existing sources of pollution in the area, see our response 23 in Section II.B.1 of this document. EPA notes that our environmental justice analysis acknowledges that minority communities live in the area that may be impacted by emissions from the Project. EPA is not aware of information indicating that the demographics of these communities were a factor in the siting of the Project. Regarding the commenter's desire for an alternative location, this issue is addressed in our responses to comments 7 in Section II.A.1, comment 4 in Section II.A.3 and comment 34 in Section II.B.1.

10. **Comment:** One commenter stated that he had not received notice of the hearing in the mail but was invited to the meeting by a friend. The commenter asked to be notified of future meetings.

Response: We regret that the commenter did not receive our notice about the hearing. It is unclear to us why that was the case. In addition to following our required public notice procedures at 40 CFR Part 124, we went beyond those requirements and made our public notices available to a broader group whom we thought might be interested in our proposed action, and our March 2011 public notice was sent to all post office boxes in Kettleman City and the city of Avenal. The introductory discussion about our public participation process in Section I of this document, and our responses to comments 1, 2, 3, 20, and 24 of Section II.A.1 provide additional information about our public involvement process.

11. **Comment:** One commenter provided a written statement that EPA is anti-business, anti-job and against making a living for the people of California. The commenter also noted that the majority of the people at the hearing are not from the community of Avenal.

Response: We appreciate hearing the commenter's views, but the commenter has not illustrated how these concerns relate to the criteria applicable to this permitting decision.

B. Comments Submitted During the Second Public Comment Period (March 4, 2011 - April 12, 2011)

1. Written Comments

Comments Regarding EPA's Proposal to Grandfather the Project from 1-hour NO_2, 1-hour SO_2 and GHG Provisions

1. **Comment:** EPA received comments both opposing and supporting our proposal to grandfather the Avenal permit application from specific requirements.

   Response: EPA continues to find it appropriate and equitable, under the particular circumstances present in this instance, not to require a demonstration (consistent with EPA modeling guidelines) that the proposed Project will not cause or contribute to a violation of the 1-hour NAAQS for NO_2 and SO_2 or a demonstration that the Project will be capable of meeting emissions limitations for GHG based on the BACT requirement. The responses that follow provide additional detail on the basis for this conclusion.

STATUTORY AUTHORITY TO GRANDFATHER PERMIT AND RELEVANT JUDICIAL DECISIONS

2. **Comment:** EPA received several comments addressing EPA's authority (or lack of authority) under the CAA to grandfather the Avenal permit application.

   Several commenters stated that EPA may not grandfather the Avenal permit application by waiving the statutory requirements in sections 165(a)(3) and 165(a)(4) of the CAA, which require that a source will not cause or contribute to a violation of NAAQSs and will apply BACT for each pollutant subject to regulation. One of these commenters points to the language of CAA 165(a), which the commenter says defines applicability of PSD requirements based on when construction of a source commences, not when a permit application is deemed complete. Thus, the commenter believes the CAA provides no authority for EPA to require compliance only with requirements that applied at the time the permit application was deemed complete or upon the 1-year anniversary of such a completeness determination. This commenter also stated that when Congress adopted the PSD program, it understood that certain sources might get caught by changing permit requirements and it offered specific grandfathering relief to certain sources under section 168(b) of the Act. The commenter argues that this situation is governed by a Supreme Court precedent (*Andrus v. Glover Construction Co.*) which says that where Congress has provided an express grandfathering exemption and not others, additional exemptions are not to be implied in the absence of contrary legislative intent.

   However, another commenter argues the opposing proposition that EPA lacks any statutory authority to apply requirements related to NAAQS or a pollutant subject to regulation where those requirements take effect after the 1-year period specified in section 165(c) of the CAA has expired. This commenter argues that EPA has no statutory authority to penalize a PSD permit applicant by imposing additional requirements that arise after EPA

has defaulted on our statutory duty to grant or deny a complete permit application within one year. Thus, according to this commenter, there is no conflict of the type EPA describes between requirements in the CAA to make a decision on a permit application within one year and to ensure that new and modified sources may only obtain a permit to construct after showing they can meet the substantive PSD permitting criteria. In addition, this commenter argues, based on section 161 of the CAA, that the Act does not authorize EPA to require a demonstration that a source will not cause a violation a particular NAAQS until the affected area is designated as attainment or unclassifiable.

Another commenter said that EPA properly concluded the PSD permit application should be grandfathered from demonstrating compliance with the 1-hour NO_2 standard. The commenter argues that nothing in the CAA or in EPA regulations allows the retroactive application of new requirements after a complete permit application has been submitted. The commenter claims such retroactive application would be inconsistent with CAA section 165(c) and it would potentially create a permitting process that could continue in perpetuity without resolution. The commenter further states that Congress added section 165(c) as part of the 1977 Amendments to the Act to address its concern that the PSD program could fall prey to unreasonable bureaucratic delays. The commenter further notes that EPA has previously exercised the discretion not to require pending permit applications to meet new permitting requirements.

Response: EPA does not agree with the interpretations of the CAA offered by these commenters, except to the extent that EPA agrees we have the discretion to grandfather pending permit applications from new requirements in appropriate circumstances. As noted in the Supplemental SB (page 5) and the April 1, 2010 memorandum from the Director of the Office of Air Quality Planning and Standards cited there, EPA has previously exercised this discretion to establish grandfathering provisions in regulations. Indeed, EPA has done so where provisions of the CAA contradict each other, citing the authority under section 301(a)(1) "to set transitional rules which accommodate reasonably the purpose and concerns behind the two contradictory provisions." 45 FR 52676, 52683 (Aug. 7, 1980). Furthermore, EPA has noted and continues to recognize that even in the absence of a conflict between sections of the Act, "EPA would have the authority under section 301(a)(1) to exempt those projects in order to phase-in new requirements on a reasonable schedule." *Id.* at 52683 n. 5.

EPA believes that there is a conflict or tension between provisions of the CAA that EPA must reconcile in this situation where the Agency has failed to complete action on a complete permit application within one year and new requirements have become applicable after that time period. We do not agree with the commenters' arguments to the contrary. The CAA does not provide clear direction concerning how EPA should apply sections 165(a)(3) and 165(a)(4) of the Act to NAAQSs that become effective or pollutants that become subject to regulation after the 1-year time period has run on a particular application. As one court has observed, the CAA does not specify a consequence for failure to comply with the one-year deadline in section 165(c). *Hancock County v. EPA*, 1984 U.S. App. Lexis 14024, 22 ERC 1714 (6th Cir. 1984). The fact that commenters have offered opposing arguments that Congressional intent is clear helps to illustrate that the Act is

ambiguous on this question. Since Congress has not precisely spoken to this issue, EPA has the discretion to apply a permissible interpretation of the Act that balances the requirements in the Act to make a decision on a permit application within one year and to ensure that new and modified sources will only be authorized to construct after showing they can meet the substantive permitting criteria. *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843-44 (1984).

EPA has not proposed to waive the statutory requirements in section 165(a)(3) and 165(a)(4) in the case, as some commenters assert. The issue presented by the Avenal permit application is which NAAQS and which pollutants are covered by these applicable provisions of the Act when applied to a permit application that was determined complete before the effective date of particular NAAQS and the date when a particular pollutant becomes subject to regulation under the CAA. No one has disputed that section 165(a)(3) applies to all NAAQS in effect at the time Avenal's permit application was determined complete, and EPA is not exempting this permit application from the requirements of section 165(a)(3) with respect to all such NAAQS. Likewise, no one disputes that the BACT requirement in section 165(a)(4) applies to each pollutant subject to regulation at the time Avenal's permit application was complete. The issue is thus how EPA should interpret and apply these sections of the Act in the situation presented here considering the requirement of section 165(c) of the Act that EPA make a decision on a permit application within one year of the date the application was determined complete. This is not a question of whether sections 165(a)(3) and 165(a)(4) apply; it is a question of which NAAQS and which pollutants these provisions cover when EPA has not completed our review of an application in a timely manner and additional NAAQS have become effective and additional pollutants have become subject to regulation.

EPA agrees that as a general rule, sections 165(a)(3) and 165(a)(4) apply to "any NAAQS" that is effective and "each pollutant" that is subject to regulation as of the date a final PSD permit is initially issued (before any administrative appeal proceeding commences). However, these provisions cannot be read in isolation and should be construed in the context of other provisions in section 165 of the Act, such as section 165(c). Since EPA is required to give effect to all provisions of the Act, in those circumstances where a strict reading of sections 165(a)(3) would frustrate Congressional intent that EPA act in a timely manner, the Agency has the discretion to interpret the reach of section 165(a)(3) to be limited to particular NAAQS that were proposed or effective prior to specific milestones in the permitting process. The same reasoning may apply to particular pollutants that become subject to regulation and hence subject to section 165(a)(4) of the Act while an application is pending.

Thus, EPA does not agree with the view expressed by some commenters that section 165(a)(3) and 165(a)(4) must be read strictly in all circumstances to apply to all NAAQS in effect and all pollutants subject to regulation on the date EPA issues a final permit decision, regardless of other circumstances or other requirements of the CAA. Such a reading fails to acknowledge or give meaning to section 165(c) of the Act. As one commenter has pointed out, legislative history illustrates Congressional intent to avoid delays in permit processing. S.Rep. No. 94-717, at 26 (1976) ("nothing could be more detrimental to the intent of this

section and the integrity of this Act than to have the process encumbered by bureaucratic delay").

Furthermore, EPA is not persuaded that the first clause in section 165(a) of the Act requires that EPA base applicability of PSD requirements on the date when construction of a source commences. Read together with the first clause in section 165(a)(1), it is apparent that section 165(a) establishes only that construction may not commence without a permit issued "in accordance with the requirements of this part." This language does not define "the requirements of this part" that are applicable when a permit is issued or establish that the applicable requirements under the PSD program are those in effect when construction commences, rather than those applicable when the permit is issued. This interpretation of the Act as requiring compliance with standards in effect when construction commences is inconsistent with the view expressed by this same commenter, based on *Ziffrin v. United States*, 318 U.S. 73, 78 (1943), that courts have consistently recognized that an agency is required to apply the law in effect at the time it renders a decision on a permit application.

EPA is not persuaded that the presence of a grandfathering provision in section 168(b) precludes EPA from establishing grandfathering exemptions in other circumstances. The commenter's reference to the Supreme Court's observation that when "Congress expressly enumerates certain exceptions to a general prohibition, additional exceptions are not to be implied in the absence of evidence of a contrary legislative intent," *Andrus v. Glover Construction*, 446 U.S. 608, 616-17 (1980), is not persuasive here. The court applied this principle in a circumstance where there was a provision of law "expressly relating to contracts of the sort at issue here." Id. These are not the circumstances here. Section 168(b) of the Act does not expressly relate to the application of PSD permitting requirements to an application pending at the time of the promulgation of a new NAAQS or the regulation of an additional pollutant under the CAA. Section 168(b) exempted facilities that were subject to permitting requirements under an earlier version of the PSD program created solely by EPA regulation prior to the enactment of section 165 of the CAA and other provisions that expressly authorized and established the requirements of the PSD permitting program applicable today to Avenal and other sources. This exemption operated to continue existing requirements for certain sources after a fundamental change in the statutory and regulatory regime under which such sources were required to obtain authorization to construct or modify major stationary sources of air pollutants. Such an exemption does not expressly relate to the incorporation of a new requirement into the PSD program, under existing statutory authority, when EPA promulgates a regulation that creates such a requirement. In this case, EPA is not grandfathering the APC permit application from the general prohibition in section 165(a) against commencing construction in the absence of a permit issued "in accordance with the requirements of this part." The CAA does not contain any express exemptions to the phrase "the requirements of this part" or from section 165(a)(3) of the Act or section 165(a)(4) of the Act that apply when EPA promulgates an additional NAAQS or additional pollutant becomes subject to regulation. Furthermore, section 168(b) applied to sources that had commenced construction before new provisions of the CAA were enacted, whereas the grandfathering that EPA is applying in this instance is applicable to changes in regulatory requirements prior to the issuance of a permit. Thus, the adoption of a one-time grandfather provision upon enactment of the statutory PSD program is clearly

different from grandfathering when EPA promulgates a new NAAQS or regulates a new pollutant, which the Act does not address. The fact that Congress expressly enumerated an exemption in section 168 intended to ease transition upon enactment of the PSD provisions in the Act does not constrain the Agency with respect to offering reasonable transitional exemptions provisions when EPA regulations create new PSD program requirements under those statutory provisions.

Likewise, EPA does not agree that the Act clearly prohibits EPA from requiring PSD permit applicants to meet new requirements that take effect after the first anniversary of the date of filing of a completed application. The statute does not expressly bar applying new requirements after one year has passed and is ambiguous with respect to the necessary remedy in this circumstance. The CAA provides that "[a]ny completed permit…shall be granted or denied not later than one year after the date of filing" of a complete PSD permit application. The Act does not specify a consequence for failure to comply with this 1-year deadline in section 165(c). *Hancock County v. EPA*, 1984 U.S. App. Lexis 14024, 22 ERC 1714 (6th Cir. 1984). While there may be circumstances where it may appear unfair to subject a permit applicant to a new requirement that would not apply had the Agency met our mandatory duty, it does not necessarily follow that the terms of the Act compel fair treatment to permit applicants in such circumstances. EPA retains the discretion to deny a permit application within one year should the applicant fail to demonstrate compliance with all applicable PSD requirements within that period. This would require the applicant to reapply after new requirements become effective, thus achieving the same outcome that this commenter argues is prohibited by the Act when EPA fails to make any decision within one year. It does not follow that an applicant should be affected by a new requirement when EPA fulfills our mandatory duty on time while an applicant is relieved of this same requirement when EPA does not.

While one can infer that EPA should be precluded from applying new requirements that take effect after the 1-year period has run in order to achieve an equitable outcome, this is not the only inference that one may draw from the context of the Act. Another inference that can be drawn is that Congress expected EPA, in these circumstances, to strike a balance between the dual Congressional goals of timeliness and protecting air quality from construction or modification of major sources after promulgation of additional NAAQS to protect public health and welfare. Absent clear language requiring a particular remedy in these circumstances, EPA retains the discretion to adopt transitional exemptions to achieve fair and equitable results for all parties. The interests of communities affected by the pollution from a new or modified source merit consideration as well as the interests of the permit applicant. As discussed further below, EPA believes the balance of interests may shift depending on the amount of time that an application remains pending beyond the 1-year deadlines and other factors.

EPA also disagrees with the argument that PSD requirements should not apply to the 1-hour NO_2 NAAQS until the area in which a source proposes to locate and other areas of the country have been designated as attainment or unclassifiable for this particular NAAQS. Section 161 of the CAA requires that states prevent significant deterioration of air quality "in each region (or portion thereof) designated pursuant to section 107 as attainment or

unclassifiable." The provision does not explicitly require that an area be attainment or unclassifiable for a particular NAAQS or pollutant before the NAAQS or pollutant is covered by the provisions of the PSD program. The express terms of section 165(a)(3) and 165(a)(4) apply to "any NAAQS" and "each pollutant subject to regulation." EPA has a longstanding interpretation that the CAA requires applying the PSD requirements in accordance with section 161 of the CAA in any area that is formally designated by the state as either "attainment" or "unclassifiable" for any pollutant for which a NAAQS exists. However, an otherwise eligible source is exempt from PSD review, with respect to a particular pollutant, if the area in which the source would locate is designated "nonattainment" for that pollutant. 45 FR 52676, 52677 (August 7, 1980). The reasoning provided in prior EPA actions remains valid and applicable in this particular permitting action. 75 FR 31514, 31560 (Jun. 3, 2010) (and response to comments document); EPA, Director of EPA's Office of Air Quality Planning and Standards, *Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards* (April 1, 2010) (and references cited therein).

EPA does not agree that we are compelled to grandfather this permit application because regulations may not be construed to have retroactive effect absent express statutory authority. The application of new regulations to a pending permit application does not implicate questions of retroactive rulemaking. A retroactive requirement is one that "takes away or impairs vested rights acquired under existing laws, or creates a new obligation, imposes a new duty, or attaches a new disability in respect to transactions or considerations already past." *Landsgraf v. USI Film Products*, 511 U.S. 244, 269 (1994). Where new regulations take effect prior to a decision to grant or deny a permit application, the application of such regulations to a decision on such an application is prospective rather than retroactive. Retroactive effect does not occur where an agency applies current requirements to a decision to issue a permit for future operations (rather than the law in effect at the time of filing a permit application). *Kaiser Aluminum & Chemical Corp. v. Bonjorno*, 494 U.S. 827, 847-48; 110 S.Ct. 1570, 1582 (1990) (Scalia, J. concurring); *see also, Fassilis v. Esperdy*, 301 F.2d 429, 432 (2d Cir. 1962). Agency action that upsets expectations based on prior law is not retroactive. *National Cable & Telecommunications Ass'n v. FCC*, 567 F.3d 659, 670-71 (D.C. Cir. 2009).

3. **Comment:** One commenter claims that EPA's proposed interpretation of the Act is inconsistent with the purposes of the PSD program that are expressly outlined in section 160 of the Act, and with the policy choices that Congress made in adopting the PSD program. The commenter states that EPA's decision to grandfather the Avenal Project cannot be reconciled with any of the stated purposes of the PSD program and that there is nothing in the Act which suggests that Congress intended for those purposes to be waived or trumped by considerations that elevate procedure over substance. The commenter says EPA previously rejected similar requests for grandfathering based on these purposes of the PSD program (citing 45 FR 52676, 52683 (Aug. 7, 1980)).

The commenter further states that EPA's proposed approach here undermines the policy choices made by Congress in adopting the PSD program that 1) it is preferable to prevent air pollution from becoming a problem in the first place, and 2) controls should be installed

when new sources are being constructed rather than as retrofits on existing sources. The commenter claims the lack of a demonstration that Avenal will not cause or contribute to a violation of the 1-hour NO_2 standard would defeat the first goal as it would undermine the "prevention" purpose of the PSD program. The commenter also claims that in the absence of modeling to show compliance with the NAAQS, the possibility of violations and the future need for reasonably available control technology requirements on existing major sources is inconsistent with the second goal.

Response: EPA agrees the PSD program is based on the goals of preventing air pollution and installing controls when new sources are being constructed, but Section 160(3) of the Act also states that a purpose of the PSD program is to "insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources." EPA continues to construe this provision to call for a balancing of economic growth and protection of air quality. *See*, 70 FR 59582, 59587-88 (Oct. 12, 2005).

Legislative history illustrates Congressional intent to avoid a moratorium on construction and delays in permit processing. The House Committee report describes how "the committee went to extraordinary lengths to assure that this legislation and the time needed to develop and implement regulations would not cause current construction to be halted or clamp even a temporary moratorium on planned industrial and economic development." H.R. Rep. No. 95-294, 95th Cong., 1st Sess., at 171 (1977). As an illustration of the lengths to which the committee went, the report lists five elements of the legislation, including the following statement: "to prevent disruption of present or planned sources, the committee has authorized extensive 'grandfathering' of both existing and planned sources." *Id*. Furthermore, as one commenter has noted, the Senate Committee report specifically discusses concerns about delays in program implementation. S.Rep. No. 94-717, at 26 (1976) ("nothing could be more detrimental to the intent of this section and the integrity of this Act than to have the process encumbered by bureaucratic delay").

As in the case of the Avenal permit, in the 1980 regulation cited by commenters, EPA sought to strike a balance between competing goals of the CAA. 45 FR 52683. EPA explained that delaying certain construction "by imposing new PSD requirements could frustrate economic development" and noted that the grandfathered projects "have a relatively minor effect on air quality." Id. As a result, EPA adopted a grandfathering provision that "would strike a rough balance between the benefits and costs of applying PSD to those projects." Id. Although EPA used issuance of permits previously required under the SIP in that case to determine eligibility for grandfathering, this precedent does not preclude EPA from using another milestone in the permit process to determine eligibility to strike the appropriate balance in a different situation. In 1980, EPA concluded that determining eligibility for grandfathering based on a complete application might "exempt many more projects from review" in one particular situation addressed in 1980 and that this "would fail to give adequate expression to the interests behind section 165, especially the goal of protecting air quality." Id. This precedent does not preclude EPA from using the date of a complete application in another circumstance where such a date would not exempt a large number of projects or have an adverse impact on air quality. The interests behind section 165 include both protection of air quality and timely decisionmaking on pending permit applications. As discussed in the SB, EPA is seeking

here to give effect to balance the requirements in the Act to make a decision on a permit application within one year and to ensure that new and modified sources will only be authorized to construct after showing they can meet the substantive permitting criteria.

4. **Comment:** One commenter argues that a Supreme Court decision (*General Motors Corp v. United States*) previously rejected EPA's reasoning that we must reconcile the statutory obligations to issue a permit within one year and to ensure that the permitting requirements of section 165 are fulfilled. The commenter says that the court held in this case that a delay on EPA's part does not affect the ability or obligation of EPA to enforce other requirements of the Act. According to the commenter, the Supreme Court's conclusion in the General Motors case was based in part on the presence of other statutory remedies for delay by EPA. Since such a remedy is available under section 304(a)(2) of the CAA, this does not entitle a permit applicant to cut off its obligation to comply with the CAA.

   Response: We note first that *General Motors Corp v. United States*, 496 U.S. 530, 540-41 (1990), concerned enforcement of a SIP, not issuance of a permit. That is a key difference. In *General Motors Corp. v. United States*, the Supreme Court held that enforcement of an existing state implementation plan is not barred by EPA's unreasonable delay in acting on a proposed revision of the SIP. The situation presented in the case of the Avenal permit application is distinguishable. The question presented by the Avenal permit application is whether EPA should apply the law in effect at the time the Agency reaches a final decision to grant or deny the application or the law in effect at an earlier time due to EPA's failure to reach this decision in a timely manner. In the case of the Avenal permit application, additional legal requirements have taken effect while the Agency was reviewing the application and such requirements would clearly not have applied to this application had EPA completed our review within the 1-year period of time established in the Act. Thus, the question presented for EPA in the Avenal situation is whether EPA's failure to complete action within the statutory time frame bars the Agency from applying the new legal requirements to the Avenal permit application. In *General Motors*, the court addressed a different question, which was whether the Agency's delay in approving a change in law (a revision of a SIP) barred the Agency from applying the previously applicable law (the earlier version of the SIP). EPA does not contend in this instance that our delay justifies declining to apply the permitting requirements in effect at an earlier time. EPA is still requiring Avenal to obtain a PSD permit, and has not suggested that our delay justifies declining to enforce any requirement to obtain a permit. Indeed, since EPA is seeking to apply the law in effect prior to the time of our delay, the holding in *General Motors* is in fact consistent with EPA's view in this instance.

5. **Comment:** Several commenters believe EPA must apply the applicable standards in effect at the time the permit is issued. Citing prior court decisions (*Ziffrin v. United States, State of Alabama v. EPA*) and opinions of the EAB (*In Re Dominion Energy Brayton Point, In re Phelps Dodge Corp.*), one commenter states that the courts have consistently recognized that an agency is required to apply the law in effect at the time it renders a decision on a permit application. The commenters state that regardless of whether a permitting authority meets its obligation to grant or deny a permit application within the time period specified in the CAA, the permit must comply with all applicable standards in

effect at the time the permit is issued and that EPA cannot use our failure to make a timely permit decision in this case to justify exempting the Project from substantive applicable standards that protect public health. Other commenters cite additional EAB decisions (*In Re Vulcan Construction Materials* and *In re Shell Gulf of Mexico, Inc. & Shell Offshore, Inc.*).

Response: EPA agrees that as a general rule, an agency is required to apply the law in effect at the time it reaches a decision on a permit application. In the Supplemental SB, EPA explained that we have previously relied on the judicial opinions cited by commenters to support the general principle that a decision on an application for a government license, permit, or other type of authorization must be based on the law in effect at the time of the decision of the reviewing authority. *See Ziffrin, Inc. v. United States*, 318 U.S. 73, 78 (1943); *State of Alabama v. EPA*, 557 F.2d 1101, 1108 (5th Cir. 1977). However, EPA went on to explain how some courts have also recognized an exception to this principle in circumstances where there has been a significant and prejudicial delay by the government agency reviewing an application. For reasons discussed in our response above, EPA continues believe the circumstances present in this instance fit within an exception to this general rule recognized by the courts and that EPA's proposed action to grandfather this permit application is not precluded by the judicial decisions cited by commenters. Furthermore, the EAB's orders in the *Shell* and the *Vulcan Materials* appeals recognize that "EPA has the authority to lawfully exercise, through an appropriate process, whatever discretion EPA has to interpret what 'all applicable standards' means with the respect to a particular source being permit." *In re: Vulcan Construction* Materials, LP, PSD Appeal No. 10-11, Slip. Op. at 39 n. 41 (Mar. 2, 2011) (internal quotations omitted).

6. **Comment:** One commenter notes that in response to the deadline litigation brought forth by Avenal, EPA argued the opposite of what we are now proposing – that the case law says EPA must apply the law in effect at the time the Region makes a decision on a permit, rather than the law in effect at the time the permit application is deemed complete.

   Response: EPA continues to agree that, as general rule, the issuance of a PSD permit must be based on the law in effect at the time of such action. However, as EPA explained in the Supplemental SB, the Agency is refining our interpretation to recognize an exception to this general principle in a case where application of new requirements may result in a significant delay in issuance a decision on a PSD permit application that is pending when new requirements become effective. EPA has informed the court that we no longer assert that we must apply each NAAQS in effect at the time we make a final decision on Avenal's permit application.

7. **Comment:** The commenters claim that in the absence of statutory authority, EPA has attempted to create "equitable" authority for our grandfathering proposal and that can only be exercised by a court. Multiple commenters state that EPA has misapplied *Mitchell v. Overman* because that case speaks only to the powers of the judicial branch and administrative agencies do not have the same inherent equitable powers as the courts, and because there has been no court action here except to ensure EPA makes a final permit decision in a timely manner. The commenters criticize EPA's reliance on *Application of*

Martini and *Fassilis v. Esperdy* as the basis for our proposition that *Mitchell* might be applicable to an administrative agency. According to the commenters reliance on those cases is misplaced and incorrect because they do not speak to the power of an agency to fashion and administer its own remedy, nor do they permit the agency to violate any statutory mandates. Further, a commenter states that even if EPA did possess powers available only to the judiciary, the Agency's decision in this case cannot be reconciled against the clear Congressional intent that sources must apply best available controls for all regulated pollutants and demonstrate they will not cause or contribute to the violation of any NAAQS.

Response: EPA's grandfathering action is not based on assertion of equitable power to disregard or override law, but rather on an interpretation of our statutory authority. In so doing, EPA has in this case determined which regulatory requirements (regulations) are covered by the statutory requirements that apply to an application that was pending when the regulatory requirement was established and an application that EPA has failed to grant or deny within the 1-year time period set forth in the statute. EPA does not dispute that administrative agencies only have the powers conferred by statute. However, EPA may interpret the statutory requirements consistent with Congressional intent and exercise its discretion in a thoughtful way in doing so. Thus, while an administrative agency in the executive branch does not have the equitable powers of a court, this does not necessarily mean an administrative agency cannot interpret its statutory authority to achieve equitable outcomes consistent with Congressional intent.

The court's holding in the *Martini* case was not solely based on the equitable powers of the court. In that decision, the court held that an individual was entitled to have his petition for naturalization granted under the expired law because of the government's delay in the approval of his application. *Application of Martini*, 184 F.Supp. 395, 401-402 (S.D.N.Y. 1960). The court observed that "[t]he unexplained administrative delay following Martini's filing if given controlling weight *would frustrate Public Law 114*." 184 F.Supp. at 401 (emphasis add). This indicates the court was concerned that Congressional intent would be frustrated if the applicant were denied the benefit of Public Law 114 by virtue of the inaction of the administrative agency. Thus, the court extended the principle of "the act of the court shall prejudice no man" to the act of an administrative agency (not just the act of the court) in order to effectuate Congressional intent with respect to individuals like Martini who applied for naturalization "within the original time limited by the statute." *Id.* at 400.

Likewise, in *Fassilis*, the court also focused on Congressional intent. Here, the Second Circuit upheld several denials of applications for permanent residency status based in part on a change in law that occurred during administrative appeals of the denials. *Fassilis v. Esperdy*, 301 F.2d 429, 434 (2d Cir. 1962). This result was based on the court's conclusion that there were "no substantial delays on the part of the administrative agency which operated to deprive the applicants of any right to which any of them was entitled." *Id.* Although noting that it was not determinative of the result, the court also found significance in the fact that Congress did not enact a savings clause to protect pending administrative proceedings. 301 F.2d 433. The court concluded in that case that

Congressional intent was clear that the change in law should apply to pending applications and it was not faced with "a question of policy or of judgment committed by Congress to the expertise and decision of administrative tribunals." *Id.* at 434. However, in *Fassilis,* the Second Circuit was not faced with a provision that established a mandatory duty for the Immigration and Naturalization Service to Act on the pending applications within a specific period of time. The court's conclusion in that case that Congressional intent was clear was based on the language in the relevant law and the absence of a savings clause does not mean that EPA cannot weigh Congressional intent differently where it has a mandatory duty to act in a timely manner on PSD permit application.

Thus, EPA continues to believe that the court precedents in *Martini* and *Fassilis* support grandfathering under the circumstances presented here for the Avenal permit application. EPA is not relying directly on *Mitchell v. Overman* to establish that it has the equitable powers of a court. Rather, EPA is relying on the subsequent reasoning in *Martini* that extended the principal of "the act of the court shall prejudice no man" to administrative agencies when necessary to effectuate Congressional intent. *Fassilis* did not question this reasoning, but made clear that the Second Circuit would not apply it where (1) Congressional intent is clear that a change in law attaches to a pending application and (2) there is no prejudicial delay in an administrative proceeding.

Congress' intent to require BACT for all regulated pollutants and to require sources to show they will not cause or contribute to a violation of a NAAQS is not so clear as to direct how EPA should apply these requirements in a case such as this where EPA has exceeded the statutory deadline in the Act by more than two years. Congress clearly established a mandatory duty for EPA to act on a PSD permit application within one year. But Congress did not address how EPA should reconcile this duty with a situation such as this where the Agency's delay leads to the potential application of a series of new requirements to the permit application.

In the case of the Avenal permit application, Congressional intent for timely action would be frustrated if EPA did not take action to grandfather this permit application. Avenal's and EPA's effort to assess compliance with the hour NO_2 NAAQS has at this point added one additional year to the time it has taken for EPA to process this permit application. This delay has extended EPA's review of this application beyond the effective date of the 1-hour NO_2 concentration and the date GHG became subject to regulation. This delay has now swept in two additional requirements (for GHG and SO_2) that would not have applied had the NO_2 analysis been completed sooner. In the face of the potential need to consume additional time to obtain better information on 1-hour NO_2 concentrations and to prepare a BACT analysis for GHG and the absence of information to suggest this source will have a major impact on air quality (discussed elsewhere in this response to comment document), Congressional intent is best fulfilled in this instance by relieving Avenal of the need to demonstrate compliance with additional requirements that have become applicable only as a result of EPA's delay.

8. **Comment:** With respect to EPA's application of *Martini* and *Fassilis*, one commenter states that although EPA has attempted to create an equitable test which would allow the

Agency to grandfather a source from CAA requirements in some circumstances, EPA never shows that the facts in this particular case support the application of such a test. First, the commenter states the Supplemental SB never established that there were substantial delays on the part of the administrative agency (in this case EPA) as was the case in *Fassilis*. In particular, the commenter points to declarations made by EPA as part of the deadline litigation, that the commenter says show the bulk of the delay was the result of the section 7 consultation under the ESA. Other commenters argue that EPA's reasoning fails to recognize that the required ESA consultation was not completed until after both the NO_2 and SO_2 standards had already been adopted and after the GHG requirements had been proposed. One commenter asserts that because the delay which held the permit beyond the promulgation date of the 1-hour NO_2 NAAQS was not within the control of EPA, there is no basis for treating this case in the same way as the delay in *Martini*. Noting that the ESA consultation was not completed until August 9, 2010, the commenter says that delay alone was enough to push the permit application process beyond the 1-year mark EPA seeks to protect.

Response: Webster's dictionary provides two basic meanings of the term "delay." One is to put off, postpone. The other is to stop, detain or hinder for a time. Merriam-Webster's Collegiate Dictionary, at 304 (10^{th} Edition, 2001). EPA intended to apply the second meaning the term "delay" in the Supplemental SB. It has taken a long time for EPA to take action on this application. EPA has used the term "delay" in this context simply to describe the passage of time, not to pass judgment on whether the time required was a reflection of EPA's or any other parties' failure to act diligently. EPA has acknowledged the amount of time that has passed despite our best efforts, and that this delay has exacerbated EPA's noncompliance with a mandatory duty.

Grandfathering a permit application to remedy the extended delay and eliminate an obstacle to EPA fulfilling our statutory duty is not inconsistent with EPA's position that we have acted with diligence and proceeded as quickly as we could under the circumstances. When a person is driving a car and gets caught in a traffic jam, he or she may be delayed, but that does not mean the delay is the fault of the driver. The delay that occurred in *Martini* is described in the court's opinion as an "unexplained administrative delay." 184 F.Supp. 395, 401 (S.D.N.Y. 1960). The court's reasoning did not depend on a determination of whether the delay was justified or not. As described by the Supreme Court, the power of a court to issue a judgment retrospectively in cases of delay applies where the delay has been caused by "the multiplicity or press of business" or the "intricacy of the questions involved." *Mitchell v. Overman*, 103 U.S. 62, 64-65 (1880). Under the reasoning of these cases, substantial delay justifies the type of grandfathering action EPA is taking in the case of this permit application, regardless of whether the cause of that delay is a backlog of work or challenging issues that required significant time and effort to overcome.

The reasoning of the judicial decisions that recognize it may be appropriate to apply legal requirements in effect at an earlier time when there has been a substantial delay by a government agency apply equally to any government agency or multiple agencies that are required to take steps to approve an applicant. The United States Fish and Wildlife Service

is a United States government agency. In this case, there has been a delay in this instance by the United States government, regardless of whether the cause of that delay is attributable to EPA or another agency. The permit applicant experiences the effects of delay regardless of which agency is responsible. Thus, EPA is not persuaded that grandfathering is not justified because another agency required significant time to fulfill its responsibilities under applicable requirements.

9. **Comment:** The commenters additionally argue that the permit applicant does not have a right to a PSD permit after the statutory 1-year period has passed and that such a delay does not entitle the applicant to cut off the obligation to comply with the statute. The commenters assert that if a permit application is inadequate to meet all applicable statutory requirements and EPA is compelled to act on the permit, then the permit must be denied. The commenters state that in this case EPA could have denied the permit for a number of reasons, including the fact that the formal consultation under the ESA had not concluded until well after the required 1-year period. One commenter additionally argues that EPA cannot claim the delay here operated to deprive the applicant of any right to which it was entitled as was the case in *Fasillis*. Again pointing to documents submitted by EPA in the deadline litigation, the commenter claims that we ourselves have recognized that Avenal has no right to comply with less protective air quality requirements based on the date of its permit application. Further, the commenter states that Avenal's ability to pursue a permit has not been denied in any way and that it is still free to submit the required demonstrations and attempt to show that the Project will comply with the requirements of the CAA. The commenter concludes that EPA cannot reasonably claim that the test in *Martini* has been met where no rights have been denied as a result of a delay.

Response: EPA agrees that a permit applicant does not obtain a right to a PSD permit after the one-year deadline the Act has passed, and that a failure to meet this deadline by EPA does not automatically cut off the obligation to comply with the CAA. EPA retains the discretion to deny a permit application if the Agency is compelled to Act on the permit on the basis of section 165(c) of the Act. However, EPA must have a reasoned basis to deny a permit application and base that decision on the applicable in section 165 of the Act and, in this case, section 52.21 of EPA's regulations.

The CAA establishes a mandatory duty for EPA to grant or deny a completed permit application within one-year. A permit applicant is thus entitled to a decision from EPA in this time frame, and EPA cannot deny a permit without grounds. In ordinary circumstances, such grounds clearly include failing to show a source will not cause a violation of the NAAQS or meet the BACT requirement for each pollutant subject to regulation. However, in the extraordinary circumstances present in the case of the Avenal permit application, denying this permit on the basis for the 1-hour NAAQS for NO_2 and SO_2 and the BACT requirement for GHG would frustrate Congressional intent.

Furthermore, the relationship between EPA's authority under the PSD provisions in the CAA and the Agency's obligations under the ESA when issuing a PSD permit is complex. Commenter has not demonstrated how EPA would have grounds to deny a PSD permit

simply because the completion of a consultation under the ESA takes longer than one-year after the PSD permit application is complete.

10. **Comment:** One commenter claims that even if EPA were to apply only the emissions standards and requirements in effect on March 18, 2009, Avenal's final permit must still demonstrate the use of BACT to limit CO_2 emissions. The commenter provides a line of reasoning to argue that CO_2 has been "subject to regulation" within the meaning of Sections 165(a)(4) and 169(3) since 1993. The commenter also argues that EPA's interpretation of when a pollutant becomes "subject to regulation" as it has been laid out in recent rulemakings is arbitrary and capricious, and that it should not be used now to avoid the application of BACT to limit CO_2 emissions from the Project. Finally, one commenter states that EPA dismisses possible concern over the SO_2 NAAQS by stating that the Project will emit a *de minimis* amount of SO_2 but EPA does not elaborate in a similar way with respect to the Project's GHG emissions. In particular, the commenter states that EPA should comment on features of the Project that are consistent with GHG BACT requirements that would otherwise apply.

    With respect to the Project's GHG emissions, another commenter states that the circumstances in this case strongly support EPA's decision not to subject those emissions to PSD review. The commenter states that it is important to acknowledge the extensive GHG analysis conducted by the CEC. Notably, the CEC's Final Decision found the Project will displace older and less efficient power plants in the dispatch order and reduce overall GHG emissions from California's electrical system. As a result, the commenter says the CEC found that the Project's operational GHG emissions will not cause a significant adverse environmental impact.

    Response: EPA is not modifying our interpretation of when GHG become subject to regulation. EPA carefully considered this issue in a reconsideration proceeding that concluded in April 2010. The Agency's notice of final action contains detailed discussion of the Agency's reasoning. 75 FR 17004 (April 2, 2010). Parties that contend EPA's interpretation is arbitrary and capricious had the opportunity to raise that issue in court challenges to that action that are currently pending before the United States Court of Appeals for the District of Columbia Circuit.

    A combined cycle, natural gas-fired electric generating facility is an efficient means for producing electric power and minimizing GHG emissions. EPA has emphasized in recent guidance the importance of applying the most energy efficient technology to meet the BACT requirement for GHG. At least one permitting authority (the Bay Area Air Quality Management District) has concluded that the installation of a highly-efficient natural gas-fired turbine is BACT for GHG at a natural gas-fired electric generating facility. Thus, in the event that EPA were to require a demonstration that the Project applies BACT for GHG, EPA would expect that the technology that this applicant proposes to install would be ranked highly and that the applicant might be able to demonstrate that it meets the BACT requirement for GHGs. However, since EPA is not applying the BACT requirement to GHGs in this instance, EPA has not conducted sufficient analysis to establish that the technology applied by this permit applicant is BACT for GHGs in this instance. Because

EPA has determined that it would be inequitable under the circumstances to apply this requirement to Avenal, a detailed discussion of whether this technology is BACT for GHG at this source is not necessary. Since the completion of such an analysis would extend the time needed for EPA to complete action on this permit application, EPA is declining to do so in this circumstance.

RULEMAKING REQUIREMENTS

11. **Comment:** Several commenters urged EPA to undertake a notice and comment rulemaking process and some argue that such a process is required before EPA can grandfather the Avenal permit application. One commenter raised a general concern that EPA's proposal to grandfather Avenal will have national implications and that the policy should be addressed through general rulemaking. This commenter questions whether and how the factors considered by EPA in this case would apply to other permits. The commenter questions whether a proposed permit would need to meet only a few of the criteria considered by EPA or all five. The commenter suggests explicitly stating that this is a case-specific action and that this should not be used as a precedent for future permitting actions. Other commenters claim that EPA's proposal to grandfather Avenal violates the Administrative Procedure Act and that in order to apply our new statutory interpretations EPA must conduct a national rulemaking in accordance with APA requirements (citing court decisions in *Paralyzed Veterans of America v. D.C. Arena L.P., Shell Offshore Inc. v. Babbitt,* and *Shalala v. Guernsey Memorial Hospital*). In particular, one commenter states that while EPA acknowledges public comment is necessary to revise certain prior interpretations, the circulation of a supplemental statement of basis in the context of a permitting action does not satisfy APA rulemaking requirements. The commenter claims that because EPA is attempting to reverse national policies, notice of a rulemaking must be published in the *Federal Register*. Additionally, the commenter states that such rulemakings cannot be conducted either by the Regional Administrator or the Assistant Administrator for the Office of Air and Radiation (OAR) as these officials do not have delegated authority to adopt or revise national rulemakings governing the implementation of the PSD program or the new NAAQS. Other commenters state that whether an agency action must satisfy the APA's formal rulemaking requirements turns on whether the agency intends the rule to create new rights or duties. These commenters claim that EPA's grandfathering proposal seeks to create a right to a PSD permit and that formal rulemaking is thus required.

One commenter argues that, as an alternative to writing regulations that establish a generally-applicable transition provision, EPA may take the sort of individualized, adjudicatory action that we have proposed in the context of the Avenal permit application. This commenter cites a fundamental principle of administrative law that an agency has the discretion to proceed either by general rule or by individual order (citing the Supreme Court decision in *SEC v. Chenery Corp.*).

Response: EPA is currently evaluating whether we should engage in a notice and comment rulemaking process to establish a national transition policy for implementing the 1-hour NO_2 NAAQS and providing equal treatment for applications that have

characteristics similar to the Avenal permit application. However, EPA does not believe it is necessary to complete such an action before grandfathering this particular permit from requirements to demonstrate the source will not cause or contribute to a violation of the 1-hour NO_2 and SO_2 NAAQS or apply BACT for GHG. As one commenter points out, a fundamental principle of administrative law is that an agency may rely on ad hoc adjudication to formulate standards of conduct. *SEC v. Chenery Corp.*, 332 U.S. 194, 199-203 (1947). The Supreme Court recognized the need for this practice in the following discussion:

> Not every principle essential to the effective administration of a statute can or should be cast immediately into the mold of a general rule. Some principles must await their own development, while others must be adjusted to meet particular, unforeseeable situations. In performing its important functions in these respects, therefore, an administrative agency must be equipped to act either by general rule or by individual order. …. [P]roblems may arise in a case which the administrative agency could not reasonably foresee, problems which must be solved despite the absence of a relevant general rule. Or the agency may not have had sufficient experience with a particular problem to warrant rigidifying its tentative judgment into a hard and fast rule. Or the problem may be so specialized and variable as to be impossible to capture within the boundaries of a general rule. In those situations, the agency must retain power to deal with problems on a case-by-case basis if the administrative process is to be effective. There is thus a very definite place for case-by-case evolution of statutory standards. And the choice made between proceeding by general rule or by individual, ad hoc litigation is one that lies primarily in the informed discretion of the administrative agency.

Id. at 202-203.

The "problem" EPA has encountered in the case of the Avenal permit exhibits many of these characteristics. For reasons discussed in the Supplemental SB and this response to comments document, EPA did not initially foresee the challenges Avenal and we would face with completing a timely analysis to address the 1-hour NO_2 NAAQS in the context of this permit application. EPA did not initially perceive that a general transitional rule for application of the 1-hour NO_2 NAAQS to pending permit applications would be necessary, but the Agency must nonetheless deal with the present problem of completing action on this permit application that is long overdue.

While EPA interprets the law to provide EPA discretion to grandfather a permit on a case-by-case basis, this is a unique and unforeseen circumstance. Thus, EPA does not intend or expect to make widespread use of this discretion. EPA is separately considering whether a rulemaking process or another mechanism may be a more appropriate means to develop a nationwide transition policy for the 1-hour NO_2 NAAQS.

EPA recognizes that challenges with implementing this standard in PSD permitting are more widespread and varied than the particular circumstances present in the Avenal situation, but we have not yet had sufficient experience with this issue to crystallize our approach to this specific permit application into a general rule. As stated in Gina McCarthy's declaration of January 31, 2011, we are considering how the Agency should extend the grandfathering approach for the Avenal permit application to other proposed sources that may be experiencing circumstances similar to Avenal. As explained in the Supplemental SB, the proposed approach of grandfathering the permit for Avenal in particular is the result of EPA's responsibility to balance the statutory obligations to issue decisions on permit applications in a timely manner and to implement the substantive requirements of the Act. While EPA has reached a conclusion on the proper balance in the particular case of Avenal, we have not yet determined where the proper balance falls for other permits, all or most of which will differ from the Avenal case in at least some aspects. Other interested permit applicants should not assume that matching one particular or even several of the process or factual aspects of the Avenal case will qualify a source for grandfathering. Thus, this decision in the context of Avenal should not be viewed as establishing a general rule or precedent applicable to any other permit application.

Furthermore, EPA does not read judicial precedents to require a national rulemaking process before EPA can modify the Agency's interpretation of the PSD regulations and the CAA that EPA communicated in two documents in early April 2010. Some courts have limited an Agency's ability to change a long-standing, definitive and authoritative interpretation of a regulation without engaging in a notice and comment rulemaking. *See, e.g., Alaska Professional Hunters Ass'n v. FAA*, 177 F.3d 1030, 1033-34 (D.C. Cir. 1999); *Paralyzed Veterans of Am v. D.C. Arena L.P.*, 117 F.3d 579, 586 (D.C. Cir. 1997). The commenter, however, does not address subsequent decisions by the D.C. Circuit and other courts that have applied a less rigid standard when upholding actions by administrative agencies to change prior interpretations without a formal rulemaking process.

In most respects EPA's interpretation of the PSD program regulations is unchanged by this action. On April 1, 2010, the Director of EPA's Office of Air Quality Planning and Standards issued a memorandum entitled *Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards*. This memorandum reminded EPA Regional Offices that EPA interprets the phrase "any NAAQS" contained in the PSD provisions of the Act and EPA regulations to cover any NAAQS in effect at the time of a final permit decision. The memorandum cited prior instances where EPA has applied this interpretation, including one where EPA also issued a rule to grandfather some pending applications from the requirement to show the source would not violate the NAAQS for PM_{10}. 52 FR 24672 (July 1, 1987). Thus, the April 1, 2010 memorandum primarily repeated EPA's established interpretation that as a general rule, the phrase "any NAAQS" describes any NAAQS in effect at the time a PSD permit is issued. However, the memorandum recognized that EPA has not previously applied that interpretation of the CAA rigidly and has recognized the discretion under the statute to grandfather pending permit applications from a new NAAQS. The April 1, 2010 memorandum was unique in one respect, however. It described for the first time a natural inference from EPA's prior interpretation and actions – that if EPA did not establish a

grandfathering provision by rule, then the phrase "any NAAQS" in 40 CFR 52.21(k) should be interpreted strictly and with no exceptions. EPA made a similar statement in the April 2, 2010 final decision published in the Federal Register on the topic of the pollutants subject to the requirements of the PSD program. 75 FR 17004 (April 2, 2010) ("unless EPA promulgates a grandfathering provision that allows pending applications to apply standards in effect when the application is complete, a final permit decision issued after the effective date of a NAAQS must consider such a NAAQS.")

Thus, in this action on the Avenal permit, EPA is not changing our overall interpretation that the CAA provides discretion for EPA to grandfather pending permit applications when we establish new requirements applicable under the PSD program. Even if EPA were doing so, to EPA's knowledge, no court has required a rulemaking procedure when the Agency seeks to issue or change our interpretation of a statute.

In an abundance of caution, EPA previously acknowledged the need for a notice and comment process in this instance of the Avenal permit application because the Agency desired to change our prior interpretation that the regulation at 40 CFR 52.21(k) applies to "any NAAQS" in effect on the date a permit is issued unless EPA has established an express exemption by rule to allow grandfathering. This unique aspect of the April 1, 2010 and April 2, 2010 interpretive statements is the only element that EPA is changing in this permitting action. After considering the judicial decisions cited in the Supplemental SB as well as the Agency's power to proceed through ad hoc adjudication described above, EPA no longer subscribes to the strict reading of 40 CFR 52.21(k) announced in the April 2010 actions in circumstances such as this where a decision on a permit application has extended far beyond 1-year period established in the Act.

Since those portions of the April 2010 interpretive statements that EPA is changing in this action are just over a year old, EPA's statement that grandfathering is not permissible without rulemaking is not well-established and has not been substantially relied upon by affected parties. More recent cases since *Paralyzed Veterans* have recognized that notice-and-comment rulemaking is not required to modify interpretations of regulations that exhibit these characteristics. *MetWest Inc. v. Secretary of Labor,* 560 F.3d 506 (D.C. Cir. 2009). In this case, the court upheld an interpretative statement where the Petitioners failed to show a "substantial and justifiable reliance on a well-established agency interpretation" of the sort evident in *Alaska Hunters*. 560 F.3d at 511. The court called this reliance a "fundamental rationale" of *Alaska Hunters*. Describing the reliance analysis as "crucial," the court noted that to ignore it would be to "misunderstand *Alaska Hunters* to mean that an agency's initial interpretation, once informally adopted, freezes the state of agency law, which cannot subsequently be altered without notice-and-comment rulemaking." *Id.* at 511 n. 4.

To the extent that a party can show "substantial and justifiable reliance" on the April 2010 interpretations of EPA's regulations and that the 1-year life of these documents is sufficient to make them well-established, the notice and comment process EPA provided in the context of this permit is sufficient to protect the interests of parties that may have relied on EPA's prior interpretation in this instance. Since EPA has not yet taken any action to apply

this interpretation beyond this particular permit application, this action does not implicate *Shell Offshore, Inc. v. Babbitt*, 238 F.3d 622 (5th Cir. 2001). As of this point, this is a situation where the facts of this particular case have caused EPA to re-interpret our rule.

Furthermore, the United States Court of Appeals for the Ninth Circuit, which would have jurisdiction over any appeal of this permitting decision, does not follow the reasoning of *Paralyzed Veterans*. The Ninth Circuit has held that notice-and-comment rulemaking is required only for substantive change to a regulation, not prior interpretations. *Miller v. California Speedway Corp.*, 536 F.3d 1020, 1033 (9th Cir. 2008).

12. **Comment:** The commenters claim that the delegation EPA's Assistant Administrator for OAR has received for making the final permit decision in this case is unlawful and that a final permit decision must come from the Regional Administrator. In particular, the commenters state that the regulatory authority to issue PSD permits is specifically granted to regional administrators and that a formal notice and comment rulemaking is required to change the codified delegation. One commenter argues that any attempt by EPA to assert that this public notice and opportunity to comment (referring to the public notice EPA recently released regarding the Supplemental SB is sufficient for the Administrator's redelegation of authority is defeated by the notice's clear directive that comment was limited to topics that do not include this issue. The commenters also claim that delegation of the final permit decision to the Assistant Administrator of OAR is inappropriate as, unlike the regional offices, OAR has no established procedures for or historical practice of reviewing PSD permit applications.

Response: EPA addressed this subject in a memorandum to the permit file dated March 3, 2011 that is entitled *Delegation of PSD Permit Authority to Assistant Administrator*. This memorandum was in the docket for this permit throughout the public comment period on the Supplemental SB. The memorandum explains that a one-time delegation of this nature is a procedural rule that modifies the requirements of Part 124 in this case. As explained in the memorandum, such a procedural rule need not be adopted through a notice-and-comment process or published in the Code of Federal Regulations. Commenters have not provided any information or analysis to undermine the reasoning in the March 3, 2011 memorandum to the permit file.

EPA headquarters offices have substantial experience with PSD permits. These offices oversee and coordinate the PSD program on nationwide basis and are well-acquainted with the procedures and practices for reviewing PSD permit applications applied across all Regions in EPA, as well as many states.

EQUITABLE TREATMENT FOR OTHERS AND CONSTITUTIONAL CONCERNS

13. **Comment:** Several commenters expressed concern about unequal treatment of other permit applicants or communities affected by proposed facilities. One commenter is concerned that minority residents will bear disparate impacts because Avenal will be grandfathered from applicable requirements while other PSD projects that are not located in disadvantaged communities will not be grandfathered. This commenter believes that

EPA's proposal violates the Due Process Clause of the Fifth Amendment to the U.S. Constitution. In particular, the commenters state that while EPA is proposing to exempt the Project from requirements pertaining to NO_2, SO_2 and GHG, every other PSD permit applicant who applied for a permit application prior to the effective dates of those requirements must comply with them. The commenters claim that such unequal treatment violates the tenets of equal protection. Another commenter urged EPA to acknowledge that all similarly situated facilities are entitled to the same relief as Avenal. On the subject of grandfathering in particular, these commenters note that EPA has failed to notify states of how we intend to treat similarly situated sources and that while EPA seeks to grandfather one source where we are the permitting authority, states and local agencies are struggling with the implementation of the new NAAQS. These state commenters urge EPA to give them the opportunity to grandfather similarly situated sources.

Response: EPA has made clear that we intend to enable similarly situated permit applications to receive the same treatment as Avenal. However, as discussed in the response above, EPA has not yet determined the exact form or scope the action that we intend to take to more precisely define similarly situated sources. Until EPA completes that action, claims of unequal treatment by EPA are premature.

Generally, under equal protection jurisprudence, in order to establish a claim, a party must show that it has intentionally been treated differently than others with whom it is "similarly situated." *Engquist v. Ore. Dep't of Agric.*, 128 S.Ct. 2146, 2153 (2008). In addition, a party must show that there is no rational basis for the government's differential treatment. *Id.* Commenters have not shown that EPA has intentionally treated anyone differently from others similarly situated. EPA has indicated that we intend to apply the same transition policy to others who are in a similar situation to Avenal, but as discussed above, defining precise criteria for identifying such permit applicants will take some additional time for EPA. Further, EPA will ensure we have a rational basis to distinguish between permit applications that are eligible for grandfathering under this policy and those that are not.

To establish a due process claim, a party must establish three things: (1) it has "a life, liberty, or property interest protected by the Due Process Clause"; (2) it was deprived of that protected interest within the meaning of the Due Process Clause; and (3) the government did not afford it adequate procedural rights prior to depriving it of that protected interest. *Hahn v. Star Bank*, 190 F.3d 708, 716 (6th Cir. 1999), *cert. denied*, 529 U.S. 1020 (2000). Commenters have not identified a property interest that has been affected by EPA's action or explained how this action would deprive anyone of such a property interest without adequate procedural rights.

FACTORS EPA IDENTIFIED AS GROUNDS FOR GRANDFATHERING

14. **Comment:** Several commenters questioned the five factors EPA identified as the basis for grandfathering this particular permit application. One commenter summarized these factors as follows: (1) emissions from the proposed facility; (2) permit timing; (3) unanticipated challenge; (4) the additional delay caused by addressing NO_2, and (5) legal precedence. This commenter argued that EPA has no authority or discretion to invent factors that would

exempt any facility from compliance with CAA requirements and that even if we did, the factors applied here are flawed. Another commenter questions whether and how the factors considered by EPA in this case would apply to other permits. The commenter questions whether a proposed permit would need to meet only a few of the criteria considered by EPA or all five. The commenter suggests explicitly stating that this is a case-specific action and that this should not be used as a precedent for future permitting actions.

Response: EPA maintains our view that the grandfathering of this particular permit from the identified requirements is justified by the combination of the five factors listed on page 6 of the Supplemental SB and discussed further on subsequent pages. However, in the response to comments reflected in this document, EPA is supplementing our explanation for why the combination of these factors and other considerations support grandfathering in this instance.

As explained in the Supplemental SB, the proposed approach of grandfathering the permit for Avenal in particular is the result of EPA's responsibility to balance the statutory obligations to issue decisions on permit applications in a timely manner and to implement the substantive requirements of the Act. While EPA has reached a conclusion on the proper balance in the particular case of APC, we have not yet determined where the proper balance falls for other permits, all or most of which will differ from the APC case in at least some aspects. Other interested permit applicants should not assume that matching one particular or even several of the process or factual aspects of the APC case will qualify a source for grandfathering. EPA will provide further information in the near future as to how we propose to identify permit applications in similar situations that are eligible to be grandfathered from these requirements as well.

15. **Comment:** One commenter finds fault with EPA's consideration of the fact that the source will not cause or contribute to a violation of any NAAQS regulated under the permit that was in effect at the time EPA originally proposed the permit for this Project. The commenters state this does not address the fact that the applicable standards are those which are in place at the time the permit is issued. Further, commenters refer to a statement made by EPA when we adopted the revised NO_2 NAAQS on February 9, 2010 that the annual standard alone is not sufficient to protect public health from short-term exposures to NO_2, and the commenters state that the permit will therefore not ensure the protection of public health as required by the CAA. Another commenter notes that the 1-hour NO_2 NAAQS would not be relevant to this permit if EPA had met our obligation to grant or deny this permit application within one year of completeness. Another commenter observed that grandfathering a source from an element of the permitting program during a transition period does not mean that a violation of the NAAQS will result.

Response: As discussed above in response to comment 2 in Section II.B.1, EPA believes we have the discretion under the circumstances here to apply an exception to the general principle that the applicable standards are those in place at the time a permit is issued. EPA has previously supported grandfathering provisions when it appears a source will have a relatively minor effect on air quality. 45 FR 52683. Although EPA does not have an acceptable analysis that enables us to reach any conclusions regarding impacts of this

source on hourly NO_2 concentrations, the information that is available for other NAAQS indicates that the Project will have a relatively minor effect on air quality. The Project impacts are well below (in all cases, less than 6 percent of) the applicable NAAQS for the PSD pollutants addressed in the PSD permit. When this expected air quality impact is balanced against the amount of time that EPA has been considering this permit application and the impact this delay has had on the permit applicant, EPA believes grandfathering is justified in this instance to balance the competing statutory obligations that EPA must meet in this circumstance. EPA agrees with the observations of one commenter that grandfathering does not necessarily mean that a violation of the NAAQS will result. EPA had not yet concluded that the 1-hour NO_2 NAAQS was necessary at the time that we were required to Act on this permit application.

16. **Comment:** Two commenters questioned the relevance of the fact that the Project would be fired on natural gas. The commenters claim that the nature of the Project should have no bearing on EPA's action in this case and that citing the nature of the Project as justification sets a bad precedent. In particular, one commenter states that EPA's proposal here may undercut our past statements that we are not attempting to define natural gas as BACT.

Response: EPA's focus in the Supplemental SB was on emissions from this proposed source. EPA highlighted the fact that the applicants seeking authorization to construct a "state-of-the-art natural-gas fired electric generating facility *that will achieve the lowest levels of air pollutant emissions achievable in this instance*." Supplemental SB at 6 (emphasis added). EPA has previously justified grandfathering where the covered sources would have a minor effect on air quality, 45 FR 52683, and also finds it justified in this instance.

EPA agrees with the commenters that the use of natural gas fuel alone should not be a relevant consideration in determining whether grandfathering is justified in a given instance, but grandfathering of this source is supported by the emissions profile and relatively small impact of this type of source on air quality, among other factors. The level of emissions from a source is a relevant consideration, because it provides some information, in the absence of a modeling analysis for all averaging times that is consistent with EPA guidelines, to indicate that the source will have a relatively low impact on air quality in the local area. As discussed in the Supplemental SB, the record for this permit demonstrates that the source will not cause or contribute to a violation of any NAAQS regulated under the permit that was in effect at the time EPA issued a proposed permit for this Project. EPA has determined from the modeled results for the facility that the Project's impacts will be well below (in all cases, less than 6 percent of) the applicable NAAQS for the PSD pollutants addressed in the PSD permit.

Furthermore, EPA's reference to the fuel used by the Project was not intended by EPA to modify or alter views previously expressed by EPA regarding consideration of alternative fuels other than those proposed by a permit applicant in the context of the BACT analysis. EPA recently addressed the topic of "clean fuels" and whether they could be eliminated from further consideration on "redefining the source" grounds in our PSD and Title V Permitting Guidance For Greenhouse Gases at 27-28 (March 2011). EPA continues to hold

the views expressed in that document regarding consideration of alternative fuels in the BACT analysis.

17. **Comment:** Some commenters questioned the relevance of the fact that the Avenal permit application was complete over a year before the 1-hour NO_2 NAAQS was proposed. One commenter said that the relevance of the one-year time frame is unclear and questions whether a grandfathering exemption would apply in cases where a proposal came out in less than one year after a completeness determination. This commenter said that these circumstances are not unusual and it is not uncommon for EPA to publish a proposal and final rule during the time it takes for a permitting authority to resolve issues with a PSD permit. According to another commenter, because the NO_2 standard was not proposed until June 2009, if EPA had complied with our obligation under CAA section 165(c) to make a final permit decision, there would be no question regarding the relevance of the 1-hour NO_2 standard. One commenter said that EPA's statement that APC lacked notice that the 1-hour NO_2 NAAQS would apply to the Project is contradicted by our statement on page 8 of the Supplemental SB that APC's efforts to complete a sufficient modeling demonstration for the 1-hour NO_2 standard is what delayed our review of the permit application.

Response: EPA is grandfathering this permit in this action and developing a transition policy that will apply to similarly situated sources in an effort to treat permit applicants fairly, reduce a backlog in permitting, and to resolve the most egregious failures to comply with our statutory deadline. The fact that the APC permit application was complete at least one full year before the EPA proposed the 1-hour NO_2 NAAQS is one relevant factor, but not the only factor on which EPA's decision to grandfather this permit is based. EPA believes this is a relevant factor for several reasons. First, as discussed in the Supplemental SB, this illustrates that Avenal did not have notice of the potential for the 1-hour NO_2 NAAQS requirement to become applicable when its permit application was completed. However, this would be the case for a permit application that was determined complete at any time before July 15, 2009. EPA agrees with the commenter who pointed out that APC eventually received notice of the 1-hour NO_2 standard and that this is substantiated by APC's effort to provide a demonstration that it would not violate this standard. However, the relevant consideration to EPA from an equitable standpoint is that the applicant did not have advance notice of this requirement when it was preparing its application and planning the design for the Project. This is not changed by the fact that the applicant obtained notice of the 1-hour NO_2 NAAQS after EPA determined the application was complete.

Second, in considering how to define sources that are similarly situated, EPA is seeking to use objective criteria to identify permit applications that have been pending for a prolonged period of time and would suffer additional undue delay if required to address the 1-hour NO_2 and SO_2 NAAQS and the GHG permitting requirements. A permit application that was complete one year before EPA proposed the 1-hour NO_2 NAAQS would have been at least 9 months overdue at the time that the 1-hour NO_2 NAAQS became effective in April 2010 and such delay would be further exacerbated by application of new requirements after that date in contravention of Congressional intent to avoid delay. Moreover, where a draft permit has been issued before the proposal of a regulation that creates additional requirements in the PSD program, there has been no opportunity for the permit application

or statement of basis to address the potential applicability of that requirement or whether such requirements would be satisfied if applicable. To the extent that the application of a new requirement at this stage of the process raises a substantial new question that warrants an additional period of public comment, the application of the new requirement will further extend time required to reach a decision on an application. This may be one of several factors that partially supports grandfathering in circumstances such as this where a permit application has already been pending for a long time, analysis required to address an additional requirement has been unexpectedly time-consuming, and the emissions from the source are unlikely to have a large impact on air quality.

Third, EPA is seeking to identify objective criteria that will limit the number of applications eligible for grandfathering in order to avoid the potential for a widespread impact on air quality from multiple sources across the country. In our previous action to establish grandfathering provisions in 1980, EPA declined a request to use one particular milestone in the permitting process as a criteria for grandfather because it would "exempt many more projects from review" and thus would, in this particular situation "fail to give adequate expression to the interests behind section 165, especially the goal of protecting air quality." 45 FR 52683. EPA highlighted the milestone of one year before proposal of the 1-hour NO_2 standard because it is an objective criterion applicable to the Project that is unlikely to be shared by many other permit applications, thus keeping the number of permits eligible for grandfathering relatively low. EPA also believes that there are only a small number of PSD permit applications for which a draft permit was issued prior to the proposal of the one-hour NO_2 standard. Basing a grandfathering policy on completing an application or proposing a draft permit before the NO_2 NAAQS was proposed would thus give greater expression to the goal of protecting air quality but also provide a means to remedy the most egregious circumstances where EPA or state permitting authority had been unable to complete action on a permit in a timely manner. Further prolonging a delay to require satisfaction of additional requirements would arguably not give expression to Congressional intent to avoid delays.

18. **Comment:** The commenters noted that EPA based our proposal in part on unanticipated challenges associated with NO_2 modeling. One commenter states that the issues associated with the Avenal Project are not unique and that most permitting authorities experience modeling issues with PSD applications, and particularly for revised NAAQS. This commenter states that while state and local permitting agencies experience the same sorts of delays in issuing PSD permits, EPA requires the permits from those agencies to meet the NAAQS at the time of permit issuance. This commenter finally states that compliance with the 1-hour NAAQS may have been technically impossible in the absence of the implementation guidance, which was just released on March 1, 2011, and that standard setting and implementation guidance must be synchronized. Other commenters claim that although EPA says in general that some PSD permit applicants have experienced unforeseen challenges, EPA does not in fact explain how any of these challenges relate to the Avenal permit and EPA failed to demonstrate the applicant met the purported difficulties in this case. Additionally, one commenter points to other facilities that have been able to model 1-hour NO_2 concentrations and this commenter claims that the Supplemental SB provides no basis for the conclusion that Avenal also could not have done

so and does not bear responsibility for failure to show compliance with standard. This commenter also points to declarations submitted by EPA regarding the deadline litigation which state that the Agency expended significant effort in an attempt to help Avenal identify what it needed to do to show compliance with the NAAQS, and the commenter states that the record for this case does not explain what part of the overall delay was due to actual complications and what part was caused by the applicant itself. Finally, the commenters argue that even if Avenal had encountered problems, modeling challenges do not allow EPA to select which facilities do and do not have to meet the law, and they do not constitute grounds for grandfathering the Project from applicable requirements. The commenters also question why, if the applicant attempted to satisfy the new NO_2 standard, it should now be exempted from that requirement.

One commenter concurs that the "complications" EPA describes warrant the action EPA proposes to take with respect to the Avenal permit. However, this commenter disputes the Agency's representation that the "challenges" permit applicants are now facing were "unforeseen." The commenter points to a petition it submitted for reconsideration of the final NO_2 NAAQS Rule, which notes that EPA received comments on the proposed NO_2 NAAQS Rule that pointed to the need for a regulation to address implementation of any new NO_2 NAAQS through the PSD program. The commenter states it has requested that EPA both acknowledge the lack of screening and refined air quality models that have been validated for predicting 1-hour NO_2 concentrations, and defer any requirement that PSD permit applicants model compliance with the 1-hour NO_2 NAAQS until models suitable for that purpose have been developed, demonstrated, and incorporated into EPA's Guideline on Air Quality Models, using appropriate rulemaking procedures. The commenter asserts that EPA has conceded that these issues are implicated in the continuing delay in completing action on the Avenal permit applications.

Response: The complication that Avenal experienced was that the analysis of 1-hour NO_2 concentrations that Avenal attempted to perform consumed a substantial amount of time, and significantly more than EPA expected when we initially asked the applicant to address this requirement for an application that had been pending for more than a year at the time EPA made this request. EPA is not grandfathering Avenal because the Agency believes this analysis is impossible or that Avenal is unable to complete such an analysis. As discussed in the Supplemental SB, the 1-hour NO_2 analysis has produced unanticipated delays in the review of the PSD permit application submitted by APC that have exacerbated EPA's failure to comply with the statutory deadline for action on this permit application.

EPA explained in the Supplemental SB that some applicants seeking PSD permits to construct or modify stationary sources of air pollution have experienced unforeseen challenges with the timely preparation of sufficient information to demonstrate that emissions from the proposed source will not cause or contribute to violations of the 1-hour NO_2 NAAQS. These challenges have resulted from the fact that to address the 1-hour NO_2 NAAQS, many permit applicants need to conduct a cumulative air quality impact assessment. This has also necessitated the application of modeling techniques that are more refined than those that have previously been adequate to demonstrate compliance with the

annual NO_2 standard. These refined modeling techniques require consideration of the chemical transformation of NO_x emissions through the Ozone Limiting Method or Plume Volume Molar Ratio Method under the third and most-refined Tier of EPA's modeling guidelines applicable to NO_2. Additional refinements in the determination of background concentrations based on modeling of nearby sources and ambient monitoring data may also be necessary in many cases. This level of refinement requires acquisition and analysis of additional data inputs that are available but not as readily accessible to permit applicants as has been the case with the more limited set of data that is typically sufficient in air quality modeling for annual NO_2 concentrations. In most cases in which a proposed source must show that it does not cause or contribute to a violation of the annual NO_2 standard, the source can show that by itself it does not exceed the significant impact level even when using a simple, conservative modeling approach. Thus, it does not need information on emissions of nearby sources or on background concentrations. These are more commonly needed when showing compliance with the 1-hour standard. Also, refined, less conservative modeling methods that may be needed for the 1-hour standard require information on ozone concentrations at the proposed source location.

Permit applicants and permitting authorities have needed more time than EPA expected to develop familiarity with these refined approaches and to obtain and analyze the necessary data.

In this instance, EPA called for Avenal to complete a cumulative air quality impact assessment of 1-hour NO_2 concentrations. Avenal could not show that its impact alone would be less than the significant impact level for 1-hour NO_2 concentrations reflected in EPA guidance. In this circumstance, EPA modeling guidelines call for gathering information on nearby sources to support the cumulative modeling analysis. Additional complexity arose because Avenal found it necessary to use refined, less conservative approaches instead of simpler, more conservative approaches. Under EPA's modeling guidelines, it is necessary to provide more detailed justifications to support the application of refined modeling.

The interaction between EPA and Avenal progressed steadily, but each step consumed a significant amount of time because of the complex material being prepared and reviewed. EPA first requested that Avenal provide a demonstration that it would not violate the 1-hour NO_2 NAAQS on May 6, 2010. Over the course of the next 5 months, Avenal made four separate submissions of information to EPA. EPA responded with two detailed analyses of Avenal's submissions which identified additional information that was necessary to justify Avenal's conclusions. EPA did not anticipate the difficulty EPA and Avenal would face regarding preparation of the necessary supporting information, and the time it would take to go back and forth with Avenal to acquire the necessary information. EPA asked for a second round of modeling which Avenal supplied in its fourth submission on September 13, 2010. EPA determined that this submission did not meet applicable EPA guidelines.

Avenal's and EPA's effort to assess compliance with the hour NO_2 NAAQS has at this point added one additional year to the time it has taken for EPA to process this permit

application. EPA first requested that Avenal address this requirement in May 2010. At that time, EPA was already more than one year overdue in completing action on the permit application, but did not expect it would take significant additional time for Avenal to complete a satisfactory analysis of its impact on 1-hour NO_2 concentrations. However, EPA and Avenal then consumed the next 9 months preparing and reviewing information. The refined nature of the analysis required that Avenal take more time to prepare its submissions and EPA staff more time to review these submissions than EPA first expected. This delay then extended EPA's review of this application beyond the effective date of the 1-hour SO_2 NAAQS and the date GHG became subject to regulation. In the face of the potential need to consume additional time to obtain satisfactory justifications for various aspects of Avenal's analysis of 1-hour NO_2 concentrations and to prepare a BACT analysis for GHG, EPA identified the option of grandfathering this application as a more equitable approach to avoid further delays in completing action on this permit in contravention of Congressional intent.

EPA has not conceded the points raised in the Petition for Reconsideration cited by one commenter, which alleges that no screening and refined air quality models have been validated for predicting 1-hour NO_2 concentrations. EPA has approved the AERMOD dispersion model for use in several regulatory applications, including use by permit applicants to demonstrate that the sources they propose to build will not cause or contribute to violations of the 1-hour NO_2 standard. On February 25, 2010, before the 1-hour NO_2 standard became effective, EPA issued a *Notice Regarding Modeling for New Hourly NO_2 NAAQS*, which explained that the current AERMOD model should be used in accordance with established guidelines on the application of this and other air quality models contained in 40 C.F.R. Part 51, Appendix W. In addition, after the 1-hour NO_2 NAAQS became effective, EPA issued two additional guidance memoranda on June 29, 2010. One of those memoranda, entitled *Applicability of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard*, provided additional technical guidance on using AERMOD to demonstrate that emissions from a proposed stationary source will not cause or contribute to a violation of the 1-hour NO_2 standard. On March 1, 2011, EPA provided additional guidance in a memorandum entitled *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard*. Collectively, these documents illustrate how the AERMOD model may be used successfully to complete an analysis to demonstrate that a proposed facility will not cause or contribute to a violation of the 1-hour NO_2 standard.

19. **Comment:** With respect to the fifth factor, agency delay, one commenter requested an elaboration of the causes of the delay in the Avenal permit application to help understand why EPA has singled out this permit for grandfathering. This comment observed that the multiple public comment periods for this Project do not seem to have yielded insurmountable issues and that the administrative record is inadequate to explain why EPA did not issue the final permit before our statutory deadline or at least before the effective date of the 1-hour NO_2 NAAQS.

Response: As long as they are not attributable to actions of the permit applicant, EPA does not consider the causes of delay material to determining whether a source is eligible to

be grandfathered. EPA's focus in this instance, and in our evaluation of how best to define the scope of our grandfathering policy, is on the duration of the delay that preceded the effective date of the 1-hour NAAQS rather than the cause. Congressional intent would be especially frustrated by imposing additional delays associated with meeting the 1-hour NO_2 NAAQS and other requirements on a permit application that has been pending for an extended period of time before the 1-hour NO_2 NAAQS became effective. EPA's response to comments regarding the judicial precedents that EPA cited to justify grandfathering on the basis of this degree of administrative delay are given in responses to comments 2, 4, 5, 7 and 8 of Section II.B.1.

PRIOR EPA GRANDFATHERING POLICIES

20. **Comment:** Some commenters argue that EPA's proposal in this instance is contrary to previously adopted policies and statements regarding the meaning of the phrase "subject to regulation" in the PSD provisions and associated regulations; the commenters state that EPA may not ignore those policies. With respect to BACT requirements in particular, the commenters state EPA took the position in our April 2010 reconsideration of the PSD Interpretive Memo (75 FR 17004), that GHG effectively became subject to regulation on January 2, 2011 and that the permit is flawed because EPA failed to consider the GHG emissions from the Project or analyze options to control them as part of the BACT analysis. Commenters note that, with respect to GHG, we specifically said in April 2010 that we did not see any grounds to establish a transition period for pending permit applications. The commenters note that EPA had already reviewed the Avenal application when we made this determination. This notice also states that the effective date of a NAAQS is also the date a NAAQS takes effect through the PSD permitting program. Further, a commenter points out that in EPA's reconsideration of the PSD Interpretive Memo we clearly stated that unless we promulgate a grandfathering provision that allows pending applications to apply standards in effect when the application is complete, a final permit decision issued after the effective date of a NAAQS must consider such a NAAQS. A commenter notes that EPA again adopted the same conclusions when we issued the final Tailoring Rule in June 2010.

Response: EPA acknowledged these prior policies and interpretive statement in the Supplemental SB. We explained that we were seeking to establish an exception in this circumstance to the general policies and interpretive statements announced in two separate actions in April 2010. EPA explained that, at the time of the earlier action, EPA had not adequately considered the judicial decision supporting such an exception and the time that would be required to address the 1-hour NO_2 NAAQS. EPA continues to feel that these grounds and others cited in the Supplemental SB justify this action to establish an exception to those prior policies and interpretations in the identified circumstances. EPA's overall interpretation of the phrase "subject to regulation" in section 52.21(b)(50) of our regulations, as described in the PSD Interpretative Memo and April 2, 2010 final action on reconsideration of the memo, is unchanged by this decision to grandfather the Avenal permit. However, with respect to grandfathering from GHG requirements, EPA is excepting Avenal from the general policy statements and interpretation of regulations

described in the April 2, 2010 notice of final action on the reconsideration of the PSD Interpretive Memo.

21. **Comment:** One commenter points out that EPA previously rejected the notion of grandfathering on the same grounds at issue here. Specifically, the commenter points to EPA's final rulemaking to adopt the PSD regulations after the 1980 CAA amendments in which we declined to promulgate a grandfathering provision based on the date of a complete permit application rather than the date of permit issuance because the use of such a date would give inadequate expression to the interests of Section 165 to protect air quality (citing 45 FR 52676, 52683 (Aug. 7, 1980)).

    Response: As with the APC permit application, in the 1980 regulation cited by commenters, EPA sought to strike a balance between competing goals of the CAA. 45 FR 52683. EPA explained that delaying certain construction "by imposing new PSD requirements could frustrate economic development" and noted that the grandfathered projects "have a relatively minor effect on air quality." Id. As a result, EPA adopted a grandfathering provision that "would strike a rough balance between the benefits and costs of applying PSD to those projects." Id. Although EPA used issuance of permits previously required under the SIP in that case to determine eligibility for grandfathering, this precedent does not preclude EPA from using another milestone in the permit process to determine eligibility to strike the appropriate balance in a different situation. In 1980, EPA concluded that determining eligibility for grandfathering based on a complete application might "exempt many more projects from review" in one particular situation addressed in 1980 and that this "would fail to give adequate expression to the interests behind section 165, especially the goal of protecting air quality." Id. This precedent does not preclude EPA from using the date of a complete application (or another milestone) in another circumstance where such a date would not exempt a large number of projects or have an adverse impact on air quality. The interests behind section 165 include both protection of air quality and timely decisionmaking on pending permit applications. As discussed in the SB, EPA is seeking here to balance the requirements in the Act to make a decision on a permit application within one year and to ensure that new and modified sources will only be authorized to construct after showing they can meet the substantive permitting criteria.

22. **Comment:** Another commenter stated more generally that it supports reasonable grandfathering provisions, such as those proposed in this case, to allow for smooth transitions to new requirements in the NSR program. The commenter states it is unlikely that such transitions would result in any environmental degradation over instant enforcement of a newly promulgated NAAQS since projects must apply BACT, protect air quality related values in Class I areas, and comply with all existing NAAQS and PSD increments among other things. In addition, this commenter argues that the CAA provides for compliance with all NAAQS by mechanisms in addition to the NSR permitting program such as State Implementation Plans, which specify how national primary and secondary ambient air quality standards will be achieved and met.

    Response: EPA believes we have the discretion to adopt reasonable grandfathering provisions in regulations, and to grandfather without such provisions in unforeseen or

unique circumstances (as occurred in the case of the Avenal permit) when EPA is unable to promulgate regulations in time or to crystallize general criteria. See the responses to comments 3, 5 and 11 in Section II.B.1. However, a determination of whether grandfathering is appropriate should be made on case-by-case basis when new requirements are incorporated into the PSD permitting regulations. EPA does not agree with the commenter's suggestion that one can always conclude that there would not be any environmental degradation in applying a transition policy as compared to immediately enforcing a newly promulgated NAAQS.

Comments Regarding Environmental Justice Issues

23. **Comment:**[11] The commenters state that environmental justice concerns justify rejection of the proposed permit. Even without a new power plant, the commenters say that the nearby communities of Avenal, Huron and Kettleman City are burdened by a number of environmental harms including: some of the highest ozone and $PM_{2.5}$ levels in the country, drinking water contamination, exposure to pesticides and other agricultural chemicals, near roadway exposure to diesel particulate emissions from the I-5 freeway, defunct oil and gas extraction operations, risk associated with proximity to a hazardous waste facility, impacts associated with composting and the application of biosolids sludge from LA, immuno-compromised health associated with a spike in birth defects and a high number of miscarriages. The commenters state that these impacts contribute to higher-than-average asthma prevalence, and asthma-related hospitalizations and emergency room visits. Further noting high unemployment rates in these areas and a lack of access to healthcare, the commenters state that the residents of Avenal, Huron and Kettleman City do not have the resources to cope with the above factors, and that the NAAQS do not provide an adequate margin of safety to account for those factors. The commenters state that although EPA's EJ analysis acknowledges that many of the above factors in isolation increase vulnerability to the health effects of air pollution, EPA does not analyze these factors in combination. The commenters conclude that adding another major source of pollution in this area would make existing problems worse and would be the very definition of environmental injustice.

Response: EPA agrees that communities near the Project face a number of environmental concerns, including those identified by the commenters, and that those factors in some cases may increase vulnerability to the health effects of air pollution. However, we disagree that environmental justice concerns justify denial of the application for a PSD permit for the Project.

Executive Order 12898 provides that "[t]o the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories and

[11] These or similar statements were also made by individuals during a meeting Administrator Jackson and Regional Administrator Blumenfeld held with the Central Valley Air Quality Coalition on March 23, 2011, or in correspondence following that meeting.

possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the [Northern] Mariana Islands." Section 1-101 of Exec. Order 12898, 59 FR 7629 (Feb. 16, 1994). "Federal agencies are required to implement this order consistent with, and to the extent permitted by, existing law." Id. at 7632. EPA has recognized that it is appropriate to consider environmental justice in PSD permitting actions. *See, e.g.,* In *re Prairie State Generating Company,* 13 E.A.D. 1, 123 (EAB 2006); *In re Knauf Fiber Glass, GmbH,* 8 E.A.D. 121, 174-75 (EAB 1999) ("Knauf I"). Moreover, the opportunity for the public to comment on "alternatives" and "other appropriate considerations" under section 165(a)(2) of the CAA provides EPA with a basis for incorporating environmental justice considerations into PSD permitting decisions in appropriate circumstances. *See, e.g.,* EPA General Counsel Gary Guzy Memorandum: "EPA Statutory and Regulatory Authorities Under Which Environmental Justice Issues May be Addressed in Permitting." (Dec. 1, 2000). EPA reads the language in the Executive Order directing federal agencies to identify and address impacts "as appropriate," and "[t]o the greatest extent practicable and permitted by law," to afford considerable discretion to the Agency in determining how to address any impacts that we may identify. In addition, since this Executive Order references all of the programs, policies and activities of each federal agency to which it applies, EPA may consider how best to respond to the environmental justice concerns raised in public comments within the larger context of all the actions EPA is taking to reduce environmental hazards in the communities potentially affected by emissions from the Project. EPA also believes it is appropriate to consider actions being taken by state and local government agencies to address these concerns.

In implementing Executive Order 12898, EPA believes it is appropriate for the Agency to consider the best available data that are germane in light of the scope and nature of the action before us in analyzing whether there may be disproportionate adverse impacts on minority communities and low-income communities. *See, e.g., In re: Shell Gulf of Mexico, Inc. and Shell Offshore, Inc.*, OCS Appeal Nos. 10-1 to 10-4, Slip Op. at 80, fn. 87 (EAB December 30, 2010) ("*Shell II*") (" . . . the permit issuer must endeavor to include and analyze in its environmental justice analysis available data that are germane to the environmental justice issue raised during the comment period.") After preparing our analysis based on the best available data, and considering comments received, EPA has not identified disproportionate adverse impacts on minority communities and low-income communities that would result from our proposed PSD permitting action that should affect issuance of this PSD permit, though EPA acknowledges that in light of the limited data available, EPA is not able to reach any definitive conclusion about the specific human health or environmental impacts of short-term NO_x emissions associated with the Project.

Considering the environmental conditions of greatest significance in this region and the range of actions EPA and state and local government agencies are currently taking to reduce the risks these conditions pose to health and welfare in these communities, EPA's judgment is that, despite some uncertainties and limitations in available data, emissions from this source are unlikely to add significant environmental harms to the local community. EPA has not identified disproportionate adverse impacts on minority communities and low-income communities that should affect issuance of this permit. To the extent such conditions already exist, EPA believes they are more effectively addressed

through other actions EPA and state and local agencies are taking outside the context of this permit application. EPA has met with community representatives regarding a number of those concerns, outside the context of EPA's PSD permitting action for the Project, and a number of EPA Program Offices have focused resources on following up appropriately on the community concerns raised by the commenters, as described below.

EPA and the State have recently undertaken several actions relevant to community concerns about birth defects, stillbirths and miscarriages in the area, as well as concerns about the potential for releases from the Kettleman Hills hazardous waste facility. First, EPA requested a comprehensive sampling and analytical study, including a risk assessment, of the possible off-site impacts that the PCB disposal operations at the Chemical Waste Management Facility may present to human health or the environment, and that study was completed, with extensive EPA oversight. In addition, the State of California recently completed studies on reports of increased birth defect incidences and potential environmental exposure sources within Kettleman City. CDPH analyzed birth records and interviewed mothers who agreed to participate. Cal/EPA also conducted testing of air, water and soil gas in Kettleman City.

Further, on February 8, 2010, EPA Region 9 began an extensive (RCRA and TSCA investigation of the CWM) Kettleman Hills facility. The TSCA investigation discovered non-compliance with PCB requirements, including PCB releases at the facility. CWM cleaned up those PCB releases under a cleanup plan approved by EPA and the State of California, DTSC. On November 29, 2010, EPA Region 9 completed a TSCA enforcement action against CWM whereby CWM paid more than $300,000 in penalties. On February 25, 2010, EPA issued a RCRA investigation report and Notice to CWM identifying areas of non-compliance with hazardous waste management requirements, including disposal of waste not properly treated for metals and failure to comply with federal requirements for analyzing hazardous waste. This RCRA report is part of an ongoing enforcement process which includes both compliance and potential penalties. EPA has no information that any of the violations identified during these extensive investigations present a risk to the community.

With respect to $PM_{2.5}$ and ozone levels in the San Joaquin Valley, EPA, the State of California and the District are working diligently through the ongoing State/District air quality planning process to address these nonattainment pollutants. A detailed discussion of this process is included in the response to comment 29 in Section II.B.1.

At the same time, a number of government bodies and others are providing significant funding for a wide variety of emissions reductions projects in the San Joaquin Valley that will contribute to substantial emissions reductions for $PM_{2.5}$ and ozone in the Valley, among other pollutants.

Through the Federal Highway CMAQ program, Kings County is spending $6,439,000 on projects in the years 2010-2014. These projects include sealing unpaved roads, purchase of compressed natural gas equipment and buses, signal timing projects and replacement of

particulate filters for buses operating in Kings County. These projects will reduce emissions of reactive organic gases, CO, NO_x, PM_{10} and $PM_{2.5}$ throughout the county.

Further, the West Coast Collaborative, a partnership between leaders from federal, state and local government, the private sector and environmental groups committed to reducing diesel emissions along the West Coast, has provided funding to the District, the Kern County Superintendent of Schools and the California Air Resources Board (ARB) for a variety of diesel emission reductions projects throughout the San Joaquin Valley. Since 2008, we have provided over $10,000,000 in Diesel Emissions Reductions Act funds to reduce diesel emissions throughout the Valley. We estimate that these funds result in approximately 130 tons of PM and 7 tons of NO_x reductions annually, affecting over 250 diesel engines throughout the Valley.

Other sources of funds that have been applied to diesel emission reduction projects in the Valley include the following: (1) Prop 1B Goods Movement Emission Reduction Funds, funded by ARB and administered by the District in the San Joaquin Valley; (2) the Zero Emission Agriculture Utility Terrain Vehicle Rebate Program, funded by ARB and administered by the District; (3) Air Quality Improvement Program funds - includes the Hybrid Truck and Bus Voucher Program (HVIP), Clean Vehicle Rebate Program, Lawn and Garden Equipment Replacement Project, the Hybrid Off-Road Equipment Pilot Project and Advanced Technology Demonstration Projects; and (4) the Technology Advancement Program, the District's strategic approach to encouraging innovation and development of new emission reduction technologies.

EPA and the State of California have also recently taken action to address drinking water concerns in the area. On March 25, 2011, EPA issued an administrative compliance order under the federal Safe Drinking Water Act to the City of Avenal to address the City's violation of the Safe Drinking Water Act Disinfectants and Disinfection By-Products Rule. In addition, in January 2009, the State of California issued a compliance order to the Kettleman City Community Services District to address its violations of the California Safe Drinking Water Act's maximum contaminant level for arsenic.

Next, with respect to the commenter's conclusion that the NAAQS do not provide an adequate margin of safety to account for the environmental issues faced by the communities near the Project, EPA disagrees. As stated in EPA's Environmental Justice Analysis at pages 12-13:

> For purposes of the Executive Order on environmental justice, EPA has recognized that compliance with the applicable NAAQS is emblematic of achieving a level of public health protection that demonstrates that EPA's issuance of a PSD permit for a proposed facility will not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. See, e.g., *Shell II*, Slip Op. at 74; *In re Shell Offshore Inc.*, 13 E.A.D. 357, 404-5 (EAB 2007) ("*Shell I*"); *In re Knauf Fiber Glass, GmbH*, 9 E.A.D 1, 15-17 (EAB 2000) ("*Knauf II*"); *In re AES Puerto Rico*, L.P., 8 E.A.D. 324, 351 (EAB 1999). This is because the NAAQS are health-based standards, designed to protect public health

with an adequate margin of safety, including sensitive populations such as children, the elderly and asthmatics. As the EAB recently observed, "[i]n the context of an environmental justice analysis, compliance with the NAAQS is emblematic of achieving a level of public health protection that, based on the level of protection afforded by the NAAQS, demonstrates that minority or low-income populations will not experience disproportionately high and adverse human health or environmental effects due to exposure to relevant criteria pollutants." *Shell II*, Slip Op. at 73. This is supported by the fact that "[t]he Agency sets the NAAQS using technical and scientific expertise, ensuring that the primary NAAQS protects the public health with an adequate margin of safety." *Shell II*, Slip Op. at 73.

However, EPA has also recognized that there are circumstances when it would be unreasonable to rely solely on compliance with the applicable NAAQS to support the conslusion that issuance of a PSD permit will not have disproportionately high and adverse human health or environmental effects on minority and low-income populations. *Shell II*, Slip Op. at 71-75. In the case of this permit issued to APC, EPA's Environmental Justice Analysis considered not only the Project's compliance with the applicable NAAQS, but also the potential impacts of the facility on short-term NO_2 concentrations. EPA examined short-term NO_2 concentrations – even though EPA proposed, and has ultimately decided, not to apply the new one-hour NO_2 NAAQS to this permit application – because the Agency recently determined that the annual NO_2 standard alone is not sufficient to protect public health with an adequate margin of safety against adverse respiratory effects associated with short-term exposures to NO_2. Final Rule, 75 FR 6474 (Feb. 9, 2010). Therefore, EPA's Environmental Justice Analysis considered whether short-term exposures to NO_2 emissions from the Project may result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

24. **Comment:** The commenters state that EPA is required to identify and address disproportionately high and adverse human health or environmental effects of our permitting decision on minority and low-income populations, and that Executive Order 12898 prohibits EPA from approving the PSD permit for the Project without making a determination that our decision will not disproportionately impact minority populations. The commenters state that because EPA proposes to exempt the Project from demonstrating compliance with the 1-hour NO_2 standard, EPA may not rely on the presumption that NAAQS compliance avoids disproportionate impacts on minority and low-income populations. Further, the commenters state that the EJ analysis prepared by EPA contains no information upon which to judge the impacts of increased NO_2 on low-income and minority communities around the Project site and that EPA must analyze those impacts. The commenters state that EPA admitted our EJ analysis is inconclusive when EPA stated in the Supplemental SB that we cannot reach any definitive conclusion about the specific health or environmental impacts of short term exposure to NO_x emissions on minority and low-income populations. The commenters further state that EPA's inability to make a determination about impacts associated with hourly NO_x emissions, coupled with evidence of the high vulnerability of nearby populations, makes EPA's proposal to exempt

the Project from demonstrating compliance with the 1-hour NO_2 NAAQS especially egregious.

Response: While we recognize the commenters' concerns regarding the limited NO_2 data available for consideration in our Environmental Justice Analysis, we disagree with the commenters that EPA's decision to grandfather the Project from demonstrating compliance with the NO_2 NAAQS is inappropriate, for the reasons stated in EPA's Supplemental SB for the action and in the responses to comments 1-10 in Section II.B.1.

In this situation where the available data are limited, and where EPA has determined that it is appropriate to grandfather this permit from demonstrating that the source will not cause or contribute to a violation of the 1-hour NO_2 NAAQS, EPA does not read the Executive Order to call for EPA to draw a specific conclusion regarding compliance with the 1-hour NO_2 NAAQS or that we reach a definitive determination that the Project will not result in disproportionate adverse impacts with respect to short-term NO_x emissions. As noted above, in implementing this Executive Order, EPA believes it is appropriate for the Agency to consider the best available data that are germane in light of the scope and nature of the action before us in analyzing whether there may be disproportionate adverse impacts on minority communities and low-income communities. Moreover, the language in the Executive Order directing federal agencies to identify and address impacts "as appropriate," and "[t]o the greatest extent practicable and permitted by law," affords considerable discretion to the Agency in determining how to address any impacts that we may identify in light of uncertainties regarding those impacts. EPA believes that in conducting our Environmental Justice Analysis for the Project, and considering the comments on the analysis, we are appropriately exercising our discretion in implementing the Executive Order in the context of this permit application under the CAA, which does not preclude EPA from approving this PSD permit in the face of uncertainty concerning the impacts of short-term NO_x emissions associated with the Project on the community.

As discussed in the response to comment 23 in Section II.B.1 above, for purposes of Executive Order 12898, EPA has generally recognized that compliance with the applicable NAAQS is an appropriate benchmark to support a determination that EPA's issuance of a PSD permit for a proposed facility will not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. The commenter is correct that we have not determined whether the Project in this case will comply with the 1-hour NO_2 NAAQS. Therefore, EPA has conducted a separate review of the issue of impacts from short-term emissions of NO_x in our Environmental Justice Analysis. EPA disagrees with the commenters' statements that EPA's Environmental Justice Analysis provides no information upon which to judge the impacts of increased short-term emissions of NO_x on environmental justice communities. The analysis describes what EPA believes is the best available data concerning the impacts of the Project's short-term NO_x emissions in the absence of an approved PSD modeling analysis. However, we recognize that the available data concerning impacts associated with the Project's short-term NO_x emissions are very limited, and concur with the commenter that our analysis is inconclusive in this regard. Nevertheless, we believe that our Environmental Justice Analysis and our consideration of public comments on the Analysis

are appropriate and satisfy the requirements of the Executive Order. In addition, as discussed in Section I.A of this document, emissions from mobile sources account by far for the majority of NO_x emissions in Kings County. Emissions inventory data from ARB indicate that mobile source emissions in 2010 resulted in 25.2 tons per day of NO_x as compared with 2.2 tons per day for all stationary sources combined (the total inventory for 2010, including area sources, was 27.8 tons per day). In comparison, emissions of NO_x from the Project authorized by this permit are limited to 0.395 tons per day.

25. **Comment:** A commenter states that EPA should not move forward with approving the PSD permit for the Project because EPA failed to provide adequate notice of our public hearing, in that our public notice placed information on the hearing date, time and place in the third page of dense text, and because residents of Kettleman City have reported that they did not receive the notice.

Response: EPA believes that the notice we provided of our April 12, 2011 public hearing was adequate and appropriate. EPA not only followed our regulations at 40 CFR 124.10 governing public notice, but we went well beyond those regulatory requirements in providing notice of our recent proposed action on the Project and the related public hearing to ensure that local communities were informed of our proposed action.

The text of EPA's March 2011 public notice itself is consistent with the content requirements at 40 CFR 124.10, none of which specify the placement of necessary information in a particular location within a public notice. EPA also translated the public notice and our Supplemental SB for the action, including the Environmental Justice Analysis, into Spanish.

EPA's methods for notifying interested parties and the public of our recent proposed action and the related public hearing also went well beyond the regulatory requirements for notice at 40 CFR 124.10. EPA published our public notice in English and Spanish in appropriate newspapers, including a Spanish-language newspaper, mailed and emailed the notice to an extensive list of parties consistent with 40 CFR 124.10, and also mailed the notice (in English and Spanish) to every post office box in the City of Avenal and Kettleman City. EPA also posted the public notice and the Supplemental SB on our Region 9 website. Further, EPA mailed and emailed the public notice and the Supplemental SB to the Avenal, Kettleman City and Hanford branches of the Kings County Library, and confirmed with library staff that the information would be displayed for the public.

26. **Comment:** Commenters state that data indicate that emissions from the Project will result in a violation of the 1-hour NO_2 NAAQS and that EPA's EJ analysis must disclose the likelihood of that occurrence. Specifically, the commenters state that EPA has acknowledged an assessment of 1-hour ozone[12] demonstrated that the Project may result in a maximum 1-hour NO_2 impact of 44 ppb. The commenters state that when combined with background levels found throughout California, this additional NO_2 would result in a violation of the 100 ppb standard.

[12] We assume the commenter meant to refer to NO_2 rather than ozone here.

Another commenter disagrees, specifically referring to the 1-hour NO_2 NAAQS analysis conducted by the District for the Avenal minor source permit as evidence supporting the conclusion that the Project will *not* create any disproportionately high and adverse human health or environmental impacts on any population, including minority and low income populations. The commenter states that the District has concluded that the Project's emissions will not cause or contribute significantly to a violation of the 1-hour NO_2 NAAQS.

Response: EPA does not believe that the available data provide sufficient information to determine that the Project's emissions would cause the 1-hour NO_2 NAAQS to be exceeded. NAAQS compliance determinations in the context of the PSD program involve very complex modeling demonstrations that must consider a variety of technical and site-specific factors and data. To make such a determination here under section 165(a)(3) of the Act and section 52.21(k), EPA would need a comprehensive cumulative impact analysis, consistent with section 52.21(l) and the guidelines in 40 CFR Part 51, Appendix W, that provides, justifies and considers detailed data addressing monitored background levels and nearby source emissions, in addition to emissions from the Project itself. The analysis would need to follow acceptable methods for modeling, described in EPA's Guideline on Air Quality Models, as well as methods for combining model and background data, that EPA has determined are consistent with PSD modeling guidelines and guidance. Such an analysis has not been provided to EPA. We note that prior to EPA's proposal to grandfather the Project from demonstrating compliance with the 1-hour NO_2 NAAQS, the applicant provided a number of submittals to EPA for purposes of demonstrating compliance with the standard. EPA determined that the earlier of those submittals was insufficient to demonstrate compliance with the 1-hour NO_2 NAAQS, as described in detail in correspondence to the applicant dated June 15, 2010 and August 12, 2010. The applicant then provided another 1-hour NO_2 NAAQS submittal to EPA dated September 13, 2010. EPA does not consider this analysis sufficient to demonstrate compliance or noncompliance with the 1-hour NO_2 NAAQS because it was not supported by data and justifications that are called for in EPA's modeling guidelines in 40 CFR Part 51 Appendix W and related EPA guidance. Because of the limitations in this analysis, EPA does not believe it is sufficient to enable us to draw any conclusions regarding whether this source would cause or contribute to a violation of the 1-hour NO_2 NAAQS.

As noted earlier, we believe that it is appropriate to use the best available data in considering whether the Project may result in disproportionate adverse impacts to environmental justice communities. EPA's Environmental Justice Analysis described what EPA believes is the appropriate best available data concerning the Project's short-term NO_x emissions in the absence of a PSD modeling analysis that is consistent with the Guidelines in 40 CFR Part 51, Appendix W.

We also disagree that the District's 1-hour NO_2 analysis prepared in the context of the Avenal minor source permit demonstrates that the Project complies with the 1-hour NO_2 NAAQS for purposes of EPA's analysis conducted in conjunction with our PSD permit decision for the Project. We note that the District followed its own modeling approach and guidance that it issued specific to minor source projects, which in some respects differ from

EPA's guidance and recommendations for modeling for PSD permits governing major sources. The District's analysis was not intended to serve as a PSD modeling analysis for a major source.

However, for the reasons explained in EPA's Supplemental SB and the responses to comments 1-10 of Section II.B.1, EPA believes it is appropriate to issue the permit for the Project despite the absence of a comprehensive cumulative impact analysis for the 1-hour NO_2 NAAQS prepared for PSD purposes.

27. **Comment:**[13] The commenters state that EPA accepted for investigation a Title VI complaint alleging that issuance of an NSR permit for the Project will result in adverse health impacts on residents of color in the area, and that EPA's proposal to take a similar action creates a conflict of interest since the Agency will be investigating the same activity in which we are participating. The commenters assert that relying on a flawed state analysis (referring to the EJ analysis provided by the CEC) as the basis for EPA's own EJ analysis is unreasonable and that EPA must conclude the Title VI investigation prior to making a final decision on the PSD permit.

Response: As discussed above (see our response to comment 5 in Section II.A.1), EPA notes that the OCR has accepted for investigation a portion of a Title VI complaint relating to the District's NNSR permitting process for the Project. OCR has also referred to the U.S. Department of Energy the portion of the complaint relating to the state licensing process for the Project.

EPA disagrees that OCR must conclude its Title VI investigation prior to EPA's final decision on the PSD permit.[14] EPA also disagrees that our proposed PSD permit action creates a conflict of interest given OCR's pending investigation of the Title VI complaint. EPA's Title VI investigation is an administrative process separate from EPA's PSD permit decision, is carried out independently of the CAA PSD permitting program, and pertains to a local permitting process that is also outside the scope of EPA's PSD permit decision action.[15]

Further, EPA is not relying on the CEC's environmental justice analysis as the basis for EPA's Environmental Justice Analysis but rather has provided a brief discussion of that analysis in EPA's analysis for informational purposes.

28. **Comment:**[16] The commenters state that monitoring data cited in EPA's EJ assessment are not reflective of conditions in communities near the Project site. In particular, the commenters point to statements made by EPA that NO_2 concentrations on or near major

[13] Refer to footnote 11.
[14] We note that CAA section 165(c) requires that EPA grant or deny a PSD permit application within one year of application completeness, and the PSD permit application for the Project was determined by EPA to be complete as of March 19, 2008.
[15] We also note that Title VI is inapplicable to EPA actions, including EPA's issuance of permits, because it applies only to the programs and activities of recipients of federal financial assistance, not to federal agencies. See 42 U.S.C. 2000d-4a.
[16] Refer to footnote 11.

roads have been measured to be 30 to 100% higher than those measured away from major roads. The commenters state that while Kettleman City is adjacent to I-5 and is bisected by a smaller highway, the Hanford and Visalia sites cited in EPA's EJ analysis are many miles from the proposed Project location and several miles from the nearest major highway. The commenters provide a variety of reasons why failing to account for near roadway impacts is likely to be significant, including, for example, truck traffic associated with the nearby Kettleman Hills Hazardous Waste landfill, and they assert that without identifying the likely background levels of NO_2 in Kettleman City, EPA is unable to determine the health impacts associated with the additional NO_x emissions from the Project. Based on the data that EPA did provide and the assumption that NO_2 levels in Kettleman City are 30-100% higher than those in Hanford and Visalia, the commenters assert there is no reasonable basis for believing that Kettleman City or the other communities in the vicinity of the proposed Project would not be disproportionately impacted by NO_x emissions from the plant. Commenters also state that background information from Hanford and Visalia is not representative in this case because Hanford and Visalia do not experience the same level of economic and racial disadvantage as other San Joaquin Valley communities and therefore do not represent the pollution burden borne by more the marginalized communities. Finally, commenters believe that EPA's analysis is contradictory because on one hand, EPA concluded that background levels of 1-hour NO_2 in the area surrounding the site are not disproportionately high compared with communities elsewhere in the State, and on another hand, EPA stated that the nearest monitors to the Project are located outside of the 25-kilometer boundary to determine disproportionate impacts.

Response: EPA believes that the data we cited in our Environmental Justice Analysis concerning short-term NO_x emissions from the Project and NO_2 levels in the area near the Project are the best data available at this time, and therefore appropriate to consider for purposes of our analysis, as discussed in response to comment 24 in Section II.B.1.

While EPA's Environmental Justice Analysis described the limited available data regarding NO_2 levels in the general area near the Project, EPA's analysis did not portray that data as necessarily being representative of the levels in Kettleman City or other local communities, and EPA has insufficient information at this time to determine whether or not it is in fact representative of that area in terms of air quality. EPA's analysis stated simply that "[t]he Agency currently has limited data as to the impacts of NO_x emissions from the Project or existing sources on the communities of interest. As previously discussed, there is limited hourly NO_2 monitoring data in California from EPA-approved monitoring network sites, and the closest monitoring sites are 28 miles and 46 miles from the proposed Project. The limited data indicate that background levels at the monitors closest to the Project are on par with measured levels of NO_2 statewide, and that background levels of 1-hour NO_2 in the general area surrounding the Project are not disproportionately high as compared with communities elsewhere in the State." EPA agrees with the commenters that the social vulnerabilities of the communities nearest the Project differ from those of the communities of Hanford and Visalia, and that the monitoring sites in the latter locations are located more than 25 kilometers from the Project.

EPA disagrees with the comment that, based on the data that EPA did provide and the assumption that NO_2 levels in Kettleman City are 30-100% higher than those in Hanford and Visalia, there is no reasonable basis for believing that Kettleman City or the other communities in the vicinity of the proposed Project would not be disproportionately impacted by NO_x emissions from the plant. While EPA agrees with the commenters that in general NO_2 concentrations on or near major roads have been measured to be 30 to 100% higher than those measured away from major roads, EPA has insufficient information to determine whether in this particular case the levels in Kettleman City would necessarily be at levels 30 to 100% higher than those measured in Hanford or Visalia; EPA lacks adequate information to make that determination. For example, EPA does not have an acceptable analysis comparing the level of impact from vehicle emissions at the monitors to that at the Project site. EPA agrees that it would be appropriate to obtain additional NO_2 monitoring data in the local area, and in order to do so, EPA intends to site an NO_2 monitor in the area, as discussed in our Environmental Justice Analysis and in the response to comment 31 in Section II.B.1. Further, as previously mentioned, as stated in EPA's Environmental Justice Analysis and in the response to comment 24 in Section II.B.1, EPA does not believe that the data available provides a sufficient basis on which we can reach a conclusion regarding whether or not the emissions from the Project would exceed the 1-hour NO_2 NAAQS and thereby be of a magnitude that would cause impacts of concern associated with short-term NO_x emissions on local minority communities and low-income communities.

29. **Comment:** Regarding analysis of NAAQS other than the standard for 1-hour NO_2, the commenters state that EPA admitted we did not address whether there will be disproportionate impacts on the surrounding communities due to elevated ozone and fine particulate impacts and that instead of providing our own analysis, EPA presented a summary of an analysis conducted by the State (referring to the CEC analysis). The commenters raise several issues with this.

As a general matter, the commenters state that the CEC based its findings that air pollution would be mitigated on the purchase of ERCs. The commenters state that EPA may not base our EJ findings on ERCs that will do little to reduce pollution in the communities closest to the Project site.

The commenters also state that while the CEC identified the amount of nonattainment pollutants that would be emitted by the Project, it did not identify the impact those emissions would have on nearby communities. Instead, the CEC considered whether the emissions would cause or contribute to a violation of the district-wide NAAQS and the commenters argue that the CEC's focus on district-wide impacts ignores the local impacts of the emissions.

With regard to the State's claims that $PM_{2.5}$ impacts will be insignificant compared to applicable ambient air quality standards and current levels, a commenter states that the modeling analysis that formed the basis for this conclusion is flawed. The commenter states that the modeling results do not account for the contribution of secondary $PM_{2.5}$ formation as a result of the NO_x emissions from the source and that there is no basis for refusing to include secondarily formed $PM_{2.5}$ in the assessment of ambient impacts. The commenter

states the lack of such considerations is especially troublesome here since the District has acknowledged that secondary $PM_{2.5}$ in the form of ammonium nitrate is a major component of ambient $PM_{2.5}$ concentrations in the San Joaquin Valley.

Again with regard to the State's EJ analysis of PM, a commenter cites to *In re: Shell Gulf of Mexico, Inc.* and states that the analysis is flawed because it relies on compliance with outdated science and fails to account for updated scientific and technical reviews. In particular, the commenter states that both the $PM_{2.5}$ and PM_{10} standards are undergoing review and have been called into question by EPA's Clean Air Scientific Advisory Committee. The commenter also states that EPA's analysis includes virtually no discussion of disproportionate PM_{10} health impacts based on new available health data.

The commenters assert that the CEC did not provide sufficient information to determine whether the ERCs are spatially, temporally and qualitatively equivalent to the Project's actual emissions to demonstrate that those ERCs would adequately mitigate the Project's impacts on air quality. On this point, the commenters state that the CEC's Final Staff Assessment does not demonstrate how ERCs from as far away as 150 miles will mitigate local impacts. The commenters further state that while the CEC required that ERCs located 15 miles from the Project be used at a ratio of 1.5 to 1, the CEC did not increase the ratio for ERC's located more than 15 miles away and that the CEC had no support that ERCs located 15 miles from the Project will have the same mitigation value as ERCs located 150 miles away.

The commenters state that the Project proposes to meet 98% of its PM_{10} offset requirements from SO_2 offsets at a ratio of 1 to 1 and that neither EPA nor the CEC analyzed the difference in health effects caused by exposure to PM compared to SO_2. The commenters cite several pieces of evidence which they say indicate that this ratio is insufficient and they state that EPA should explain why we do not object to the use of the 1 to 1 ratio in our EJ analysis.

The commenters assert that even with the flawed analysis prepared by EPA, it is clear that the Avenal Project will have disproportionate impacts on surrounding EJ communities. As a result, the commenters state that EPA should deny Avenal's application for a PSD permit. The commenters say that at a minimum, EPA must redo our defective and incomplete EJ analysis.

Response: As discussed in the response to comment 27 in Section II.B.1, EPA is not relying on the CEC's environmental justice analysis as the basis for our own Environmental Justice Analysis but rather has provided a brief discussion of that analysis in EPA's own analysis for informational purposes. The CEC's environmental justice analysis was conducted in the context of the State licensing and District permitting processes for the Project, and issues concerning that process and the State's analysis, including the manner in which those agencies addressed various pollutants, including nonattainment pollutants, i.e., $PM_{2.5}$ and ozone, and related issues such as ERCs and offsets, are not among the parameters that the PSD provisions of the CAA direct EPA to consider in this action. We

also note that the State and District approval processes for the Project are the subject of a Title VI complaint pending before EPA and DOE.

Further, issues concerning how nonattainment pollutants are addressed are extremely complex and must be considered in the context of the larger ongoing State/District planning process established under separate provisions of the CAA to address nonattainment pollutants, in addition to the specific state and local approval processes governing the facility. As mentioned in EPA's Environmental Justice Analysis, EPA is working with ARB and the District to ensure that there is a comprehensive plan with adequate controls for attaining the 15 $\mu g/m^3$ annual and 65 $\mu g/m^3$ 24-hour $PM_{2.5}$ ambient air quality standards. EPA's proposed action on ARB's 2008 plan for attaining the $PM_{2.5}$ standards in the San Joaquin Valley was published on November 30, 2010 (see 75 FR 74,518), and California has recently adopted revisions to the plan to address concerns identified by EPA and require additional reductions of air pollutants that adversely affect public health. EPA expects to re-propose action on the plan seeking additional public comment in the near future, before taking final action on the plan by September 30, 2011. EPA will also be working closely with both agencies as they develop a plan to meet the 35 $\mu g/m^3$ 24-hour standard, which the State must submit to EPA by December 2012, following reasonable notice and public hearings. In addition, EPA is working with ARB and the District to ensure that there is a comprehensive plan with adequate controls for attaining the 1997 8-hour ozone air quality standard by the CAA's deadline of 2024. To that end, later this year, EPA intends to propose action on ARB's 2007 plan for attaining the 1997 8-hour ozone NAAQS in the San Joaquin Valley and to request public comment before taking final action on that plan by December 15, 2011. We note that both the 2008 $PM_{2.5}$ plan and the 2007 ozone plan were subject to State/local public participation procedures and public hearings prior to adoption and submittal to EPA.

The provisions in the CAA and EPA regulations do not expressly contemplate that PSD permits will contain conditions addressing air pollutants for which an area is in nonattainment. EPA interprets the Act and court precedents to establish that emissions of nonattainment pollutants (and their precursors) from the Project should be directly addressed in the nonattainment New Source Review permits that are issued in this instance by the District. Nevertheless, EPA has considered in the context of our Environmental Justice Analysis for this permit the nonattainment conditions in the local area and strategies in place to achieve attainment with the $PM_{2.5}$ and ozone NAAQS in the San Joaquin Valley. Given the larger context in which the commenters' concerns regarding nonattainment pollutants has been raised, EPA's judgment is that it is not appropriate to address these issues further in the context of this PSD permitting action.

With respect to the comment that EPA should conduct a further analysis of impacts associated with PM_{10} emissions in the context of EPA's Environmental Justice Analysis based on new available health data concerning PM_{10} and the CASAC review, EPA disagrees that further analysis of PM_{10} impacts is necessary in this case. As discussed in detail above in response to comment 23 of Section II.B.1, in conducting an environmental justice analysis for a PSD permit decision, it is appropriate for the Agency to look at compliance with the currently applicable NAAQS for pollutants regulated under the permit

to determine whether there may be adverse impacts associated with exposure to those pollutants.

EPA does not agree with suggestion that the EAB decision in *Shell II* supports further analysis concerning PM_{10} impacts in this case. In the *Shell II* case, the EAB determined that additional analysis of impacts associated with short-term NO_x emissions was warranted as part of the Agency's environmental justice analysis for a PSD permit where EPA had issued a final rule establishing a new 1-hour NO_2 standard based on a final determination that the existing annual NO_2 standard alone was not sufficiently protective of public health, even though the 1-hour standard was not yet effective and therefore was not directly applicable to the permit at issue.[17] In contrast, in this case, EPA is still in the midst of conducting our NAAQS review process for PM_{10}, and the Administrator has not yet issued a final decision on whether revisions to the PM_{10} NAAQS are appropriate under CAA section 109, or even proposed any such decision regarding the currently applicable PM_{10} NAAQS. While EPA acknowledges that the CASAC has recommended revisions to the existing PM_{10} NAAQS, the Agency has neither proposed a decision nor made a final decision on the issue. In order to determine whether revisions to the currently applicable PM_{10} NAAQS are appropriate under CAA section 109 to ensure the protection of public health, including the health of vulnerable subpopulations, EPA must follow our statutorily mandated and well-established NAAQS rulemaking process. EPA does not believe that it would be reasonable or appropriate to prejudge the outcome of EPA's standard-setting process in the context of this individual PSD permit decision by proceeding upon the premise that the currently applicable standards are not adequately protective. Until this ongoing process is completed, EPA believes that in this case consideration of compliance with the currently applicable NAAQS for PM_{10} provides an appropriate benchmark for determining whether PM_{10} emissions from the Project may have adverse impacts in the context of our Environmental Justice Analysis.

30. **Comment:** The commenters state that what they characterize as EPA's assumptions in the EJ analysis regarding reduced NO_2 concentrations due to recent State and federal mobile source engine and fuel standards contradict recent studies. In particular, the commenters cite to a traffic study prepared by Kings County in 2009, which found significant traffic increases due to growth in the region. The commenters assert that this study and an addendum to it are contrary to EPA's assumption that NO_2 concentrations will continue to decrease due to new fuel and truck standards. The commenters argue that EPA should address the likely increase in mobile vehicle traffic along the I-5 corridor.

Response: EPA believes that our statement in the Environmental Justice Analysis indicating that EPA anticipates that NO_x, including NO_2 concentrations, will continue to decrease as a result of State and federal mobile source engine and fuel standards already in effect and being phased in as new vehicles replace older ones is accurate based on available data. The estimated 60% reduction in truck emissions described in EPA's analysis took into account the cumulative growth in the area and the associated traffic increases discussed in the study cited by the commenters. In the study, the "significant traffic increase from

[17] The facility in *Shell II* was subject to NO_2 NAAQS review as part of the Outer Continental Shelf/PSD permitting process as it was located in an area designated attainment/unclassifiable for NO_2.

significant growth in the region" is the general anticipated growth in the County and overall region rather than previously unanticipated growth from specific projects. (Recirculated Portions of the Draft Subsequent EIS, KHF B-18/B-20, p. 3.11-10). This general growth is already incorporated into ARB's projected inventories from which EPA drew the estimated 60% reduction in emissions from trucks in Kings County by 2020. In other words, the 60% reduction was calculated after taking the growth noted in the study into account.

We also note that mobile sources account by far for the majority of NO_x emissions in Kings County. Emissions inventory data from ARB indicate that mobile source emissions in 2010 resulted in 25.2 tons per day of NO_x as compared with 2.2 tons per day for all stationary sources combined (the total inventory for 2010, including area sources, was 27.8 tons per day). In comparison, emissions of NO_x from the Project are limited to 0.395 tons per day. The emissions inventory data for 2020 projects emissions from mobile sources at 14.7 tons per day as compared with all stationary sources combined at 2.3 tons per day (with a total inventory of 17.3 tons per day).

31. **Comment:** Some commenters state that they support the placement of NO_2 monitors near the Project site but they assert that a proposal to place monitors and gather additional data on local NO_x emissions does not fulfill EPA's mandate to determine potential adverse impacts of the Project on minority communities before approving a PSD permit for the facility.

Another commenter states that given its proximity to I-5, it is doubtful whether an ambient monitor in the vicinity of the Project would prove useful for measuring the Project's impacts. The commenter notes that near-roadway concentrations have been measured at approximately 30% to 100% higher than those measured away from roads; given the substantial NO_2 levels attributable to I-5, the commenter states that it seems unlikely the proposed monitor would be helpful in evaluating the Project's comparatively small NO_2 impacts.

Response: EPA appreciates the commenters' input supporting our plans to place an NO_2 monitor in the vicinity of the Project. In our Environmental Justice Analysis, we noted that in light of the existing conditions in the local communities where this source proposes to construct, EPA intends to place an ambient NO_2 monitor in an appropriate location in the vicinity of the proposed source to gather more information about the local NO_2 concentrations, using the discretion provided to EPA Regional Administrators in EPA's recent NO_2 monitoring rule, to site monitors in areas with minority and low income populations. EPA noted that this monitor, along with other NO_2 monitors that exist or may be sited in the District, will be used by ARB, the District and EPA to determine whether air quality in the region meets or exceeds the NAAQS for NO_2, and will inform governmental plans to address any identified concerns. Any such plans would consider all contributing sources in the air shed, including the Avenal facility, in the effort to address any identified nonattainment challenges.

As discussed in the response to comment 28 in Section II.B.1, above, EPA agrees that near-roadway concentrations of NO_2 may be considerably higher than those measured away

from roads, and will give due consideration to this factor in determining the appropriate placement of the NO_2 monitor in the area.

EPA agrees with the commenter that an ambient NO_2 monitor in the vicinity of the Project will not necessarily identify Project-specific impacts, for a number of reasons, including that provided by the commenter. However, EPA believes that placement of an NO_2 monitor in the area would prove useful in providing information about NO_2 concentrations in the area. As noted above in the response to comment 30 in Section II.B.1, NO_x emissions in Kings County are overwhelmingly from mobile sources. Having additional NO_2 monitoring data from this area will help to ensure that any additional measures necessary to reduce NO_x emissions and improve air quality and public health are put in place.

In addition to discussing the ambient NO_2 monitor that EPA would place in the area using the discretion provided to EPA Regional Administrators in EPA's recent NO_2 monitoring rule, EPA's Environmental Justice Analysis also requested comment on whether EPA should consider establishing a condition in the PSD permit for the Project that would require the applicant to monitor NO_2 after construction of the Project under 40 CFR 52.21(m)(2), which provides that EPA can require a PSD permit applicant to conduct ambient monitoring "after construction of the stationary source … as the Administrator determines is necessary to determine the effect emissions from the stationary source … may have, or are having, on air quality in any area." None of the public comments we received suggested that we establish a condition in the PSD permit for the Project that would require monitoring under 40 CFR 52.21(m)(2).

After further consideration of this issue, we have determined that it is not necessary or appropriate in this case to require post-construction monitoring by the permit applicant for NO_2 to characterize air quality conditions in the area, in light of EPA's current plans to site an ambient NO_2 monitor in the area using our discretion under the recent NO_2 monitoring rule.

Last, with respect to the comment that EPA's proposal to site an NO_2 monitor in the area does not fulfill EPA's mandate to determine potential adverse impacts of the Project on minority communities before approving a PSD permit for the Project, EPA believes that our consideration of the best available data concerning NO_2 impacts of the Project, in addition to our plan to site an ambient NO_2 monitor in the area to gather additional data, are appropriate and consistent with the directive of Executive Order 12898 to identify and address impacts as appropriate, as discussed above in response to comments 23 and 24 of Section II.B.1.

32. **Comment:** One commenter states general support for EPA's environmental justice analysis. The commenter further states that there is sufficient evidence in the permit record to demonstrate that EPA has complied with Executive Order 12898 and that the Project will not create any disproportionately high and adverse human health or environmental impacts on any population, including minority and low income populations. The commenter specifically refers to the analyses completed by the CEC and the hourly NO_2 analysis completed by the District for the Avenal minor source permit as evidence which

supports this conclusion. The commenter also notes that the applicant evaluated the Project's impacts to potential environmental justice populations in its application for certification submitted to the Energy Commission. With regard to the CEC's environmental justice screening analysis, the commenter states it was conducted specifically to address environmental justice policies in federal Executive Order 12898 as well as additional California policies and the conclusion of the analysis was that the Project as mitigated will not have disproportionate impacts on low-income and minority populations. Where SO_2 emissions are concerned, the commenter further notes that the 1-hour SO_2 standard set a significance level below which no additional analysis is required since emissions below that standard do not subject any sensitive population to a significant health risk. The commenter additionally states that it is important to consider that the proposed location for this Project is in the industrial zoned area of the City of Avenal. The commenter states that the City carefully selected this area for industrial development for a variety of reasons.

With respect to GHG emissions, the commenter points to the informational proceeding the CEC conducted to evaluate how to address GHG impacts in the power plant siting process. The commenter says the CEC concluded that when assessing the impacts of an additional resource seeking to supply power to the integrated system, that resource must be considered in the context of the system as a whole. The commenter notes that it is important to keep in mind this Project is fired on natural gas and has the inherent reduction in GHG emissions based upon fuel choice when compared to power plants fired with coal.

Referencing the EAB's decision in *In re: Shell Gulf of Mexico, Inc. and Shell Offshore, Inc.*, the commenter asserts that EPA does not need further analysis to conclude that the Project will not have any adverse disproportionate impacts on EJ communities. The commenter notes what it says are important distinctions between the current case and the circumstances surrounding the permit in the Shell case. Notably, the commenter states that Region 10 relied on nothing more than the annual NO_2 standard for its EJ analysis while in this case there is an extensive EJ analysis in EPA's record. In addition, the commenter states that in the Shell case, Region 10 did not address the 1-hour NO_2 standard despite the fact that it had already been proposed at the time the Region issued the draft permit. In this case, the commenter points out that the District has analyzed Avenal's impacts in light of the new 1-hour NO_2 standard and concluded that the Project's emissions will not cause or contribute significantly to a violation of the State and National Ambient Air Quality Standards; the commenter also notes that the Supplemental SB devotes a great deal of analysis to the 1-hour NO_2 standard and to the EJ implications of that standard.

Response: EPA agrees with the commenter that the Environmental Justice Analysis conducted by EPA for the Project is consistent with the requirements of Executive Order 12898, and agrees with the commenter that our analysis considers short-term NO_x emissions consistent with the EAB's opinion in *Shell II*. EPA also agrees that because the potential emissions of the Project are below significance levels for SO_2, the Project is not expected to have a significant impact on the applicable SO_2 NAAQS and thereby would not subject any population, including a sensitive subpopulation, to an adverse impact.

As discussed above in response to comment 27 of Section II.B.1, EPA is not relying on the CEC's Environmental Justice Analysis, which was conducted in the context of the distinct State licensing and District permitting processes for the Project. Issues concerning that process and the State's analysis, including the manner in which those agencies addressed nonattainment pollutants, are not matters that the PSD provisions of the CAA direct EPA to consider in this action. EPA notes that the applicant's air quality analysis was also prepared in the context of the CEC licensing proceeding, and while it provides some relevant information, for the reasons stated above, EPA is not relying on the applicant's analysis here.

With respect to the commenters' view that the District's 1-hour NO_2 analysis prepared in the context of the Avenal minor source permit demonstrates that the Project will not create any disproportionately high and adverse human health or environmental impacts on any population, including minority and low income populations, please see response 24 of Section II.B.1.

Comments on Other Issues

33. **Comment:** One commenter stated that CAA section 165(a)(3) provides that a PSD permit may not be issued unless the facility proponent "*demonstrates*…that emissions from the construction or operation of such facility will not cause, or contribute to, air pollution in excess of *any*…national ambient air quality standard in any air quality control region…" The commenter stated that the proposed Avenal Project will result in $PM_{2.5}$ and NO_x emissions above the significance thresholds at 40 CFR 52.21(b)(23)(i) and that the proposed permit and air quality analysis does not analyze the impact the Project will have on ambient concentrations of ozone or $PM_{2.5}$. The commenter discusses at length a number of issues associated with what the commenter characterizes as EPA's reliance on the District's nonattainment NSR program to satisfy the requirements of CAA section 165(a)(3).

    Response: Please see the response to comments 8, 11, 12 and 17 in section II.A.1 regarding the distinction between the requirements applicable to this PSD application for pollutants other than ozone and $PM_{2.5}$, and the requirements that apply under the NNSR program for ozone and $PM_{2.5}$.

34. **Comment:** One commenter stated that according to CAA sections 165(a)(2) and 169(3), a permitting decision should consider "the air quality impact of [the] source, alternatives thereto and other appropriate considerations" in addition to consideration in the BACT analysis of alternatives based on energy, environmental and economic impacts. The commenter notes that Avenal has applied for and received a permit from the District that would limit emissions so as to avoid the necessity for a major source PSD permit. Accordingly, the commenter states EPA cannot claim that we fully complied with CAA sections 160(1), 165(a)(2) and 169(3) when we have failed to consider this alternative, which would lower total emissions. The commenter asserts that EPA should use our authority to consider environmental justice impacts and our authority to protect public

health and welfare as a basis for rejecting Avenal's PSD permit application since there is a demonstrated alternative that will lower emissions from the Project.

Response: The proposed permit and supporting documentation describe in detail all aspects of the proposed plant, its design and its control equipment, its costs and its environmental impacts, the amount of power it will generate, and many other features. This comment, on the other hand, does little more than identify one potential alternative in a few words, and provides only the very general argument that the alternative would "lower emissions" as compared with the proposed Project. It is our understanding that the Project for which the applicant has sought a minor source permit from the District[18] is essentially the same as the Project for which the applicant is seeking a major source PSD permit from EPA, except that the minor source permit includes annual emission limits for NO_x and CO that would have the potential to result in some additional limitation on annual operations of the facility to ensure that the major source thresholds are not exceeded. While the annual emissions of the facility may be lower as a result of fewer hours of operation and/or a reduction in the average load factor on an annual basis, we note, that the equipment emitting NO_x from the minor source project would have the same permitted hourly emission rates as the major source project subject to PSD review.

As the permitting authority, EPA's obligation in responding to comments such as this, which suggest alternatives to the proposed Project, is limited to addressing whatever information is presented. EPA is not required to develop information beyond what the comments present. As the EAB stated in the Prairie State case --

> [T]he PSD permit issuer … is not required to perform an independent analysis of alternatives…. [I]n the PSD context the extent of the permitting authority's consideration and analysis of alternatives need be no broader than the analysis supplied in public comments. [Internal quotation marks and citations deleted.] This conclusion flows naturally from our conclusion that Congress did not require the PSD permit issuer to undertake an independent investigation of alternatives. Indeed, more generally, the permitting regulations do not require the permit issuer's response to public comments "to be of the same length or level of detail as the comment." In re NE Hub Partners, 7 E.A.D. 561, 583 (EAB 1998). Instead, "[t]he response to comments document must demonstrate that all significant comments were considered." Id.; see also 40 C.F.R. § 124.17(a)(2).

In re Prairie State Generating Company (PSD Appeal #05-05, August 24, 2006), slip op. at 39-40 (*Prairie State*). The EAB went on to explain that administrative imperatives are a key reason why the permitting authority is not required to undertake an independent evaluation of alternatives:

> These limits on the permit issuer's obligation to consider alternatives are particularly important where…a rigorous and robust analysis would be time-

[18] We also note that while the District has issued a minor source permit for the Avenal minor source project, the applicant would need, and still has not obtained, a license amendment from the CEC to authorize the construction of the minor source project.

> consuming and burdensome for the permit issuer. In this context, the permit issuer must be granted considerable latitude in exercising its discretion to determine how best to apply scarce administrative resources.

Id. at 43.

In the present case, the commenter has merely identified the minor source project as a potential alternative in its comments, but other than noting the different annual emission limits between the two projects, has provided no analysis or additional information to support the argument that EPA should deny the PSD permit application for the Project on the basis that the minor source project is a preferable alternative. EPA is not required to conduct further analysis of this "alternative," as the EAB has held. We note that the major source project meets all applicable PSD requirements, and also note that the minor and major source projects would have the same permitted maximum 1-hour emission rates for NO_x. EPA believes that the limited information provided by the commenter does not demonstrate that the minor source project is a preferable demonstrated alternative to the major source project and therefore EPA does not agree with the commenter that we should deny the PSD permit for the Project on this basis.

35**.** **Comment:** Multiple commenters have noted that EPA has repeatedly established new or revised NAAQS without issuing necessary guidance and implementation rules in a timely manner and one commenter states that this practice creates unnecessary confusion for permitting authorities. The commenter requested that EPA commit to issuing all guidance for a new or revised NAAQS at the time the NAAQS is published and the commenter stated EPA should involve state and local permitting authorities in the standard setting and rulemaking processes as co-regulators. Another commenter states that guidance is not a substitute for rules; this commenter says EPA's use of guidance denies states and other affected entities from the opportunity to provide input on the effective implementation of CAA requirements and that guidance should only be used to further explain or clarify what the rules already require. The commenter states that EPA has repeatedly required sources to comply with new or revised NAAQS without providing timely guidance on how to do so, and that this practice creates unnecessary confusion for permitting authorities.

Response: EPA recognizes that challenges have resulted in NSR permitting programs when EPA was unable to complete certain implementation rules and guidance at the same time a NAAQS became effective. EPA is endeavoring to better coordinate the promulgation of a NAAQS and the timing of our implementation rules and guidance to reduce these challenges.

36. **Comment:** One commenter expressed support for the proposed Project because it will generate income for the city and jobs for the community. This commenter believes that pollution from the San Francisco and Los Angeles areas create more health problems than the proposed plant will.

Response: EPA acknowledges the commenter's support for the Project.

37. **Comment:** EPA received several comments by email from local residents who expressed opposition to the proposed Project. Some stated they opposed the Project because of EPA's proposal to grandfather it when the area already has high cases of asthma and the San Joaquin Valley has multiple cities that rank among the top 10 with the worst air quality. Given this, the commenters state that the highest and newest standards must be used to keep local residents healthy.

Another commenter stated his belief that no power plant is clean, and that a proposal to build a power plant without any type of research concerning the effects such a project will have on the surrounding ecosystem and the people is irresponsible and irrational.

Other commenters stated that new standards have been set to better accommodate findings and new understanding of the environment. The commenters also stated that the government must ensure businesses help the environment rather than hurt it, and that regardless of whatever kick-backs or threats the Avenal power plant group is issuing, EPA must live up to our moral standards and stand up for what is best for the people and the earth. One of these commenter stated that is necessary to update all plants to the most current rules and regulations, and that we should ensure the longevity of not just the power plant but also the people around it.

One commenter asked why the Announcement of Public Hearing initially refers to NO_x and then later refers only to NO_2. The commenter also questioned how EPA's grandfathering proposal could be justified since we know air in Avenal sometimes violates NAAQS for NOx, and the Project will increase NO_x in Avenal. This commenter submitted a separate comment asking EPA not to allow the Project to add NO_x to the San Joaquin Valley because environmental justice and protection of health in disadvantaged communities is a priority of ours, and because the commenter says the area might be in extreme nonattainment for ozone and $PM_{2.5}$. The commenter stated that many citizens in the surrounding area work outdoors and must breathe the polluted air and that it would be better to increase the expenses of the plant than to ask local residents to bear the increased burden associated with polluted air.

Response: Regarding the commenters' statements that EPA should deny the permit or apply the most stringent standards because the San Joaquin Valley has multiple cities with the worst air quality or is nonattainment for certain pollutants, we note that the permitting requirements under the CAA are implemented on a pollutant-specific basis, depending on whether the area in which the facility is located meets applicable air quality standards. The PSD permit being issued by EPA applies to pollutants for which the Project location is in attainment with (or is unclassifiable for) the NAAQS. At the same time, a separate permitting process called Nonattainment NSR (NNSR) applies to pollutants in an area that is designated "nonattainment" for the particular national air quality standard. The NNSR permitting program contains more stringent requirements to account for the less healthful air quality conditions. Because these permitting programs are implemented on a pollutant-specific basis, it is not uncommon for a facility to require both a PSD permit and a NNSR permit. See our responses to comments 8, 11, 12 and 17 in Section II.A.1 of this document

for a discussion about why nonattainment pollutants are not regulated under the PSD permitting process. The fact that a source is located in a nonattainment area for some pollutants and requires a NNSR permit is not an adequate basis in itself for EPA to deny a PSD permit or alter the requirements that must be satisfied in order to obtain a PSD permit. With respect to one commenter's statement about the lack of analysis regarding the effects of the plant on the surrounding ecosystem and community, we further note that the PSD permit for the Project includes a number of such analyses including a control technology analysis; an ambient air quality impacts analysis; an analysis of impacts on soils, vegetation and visibility; and an analysis to determine whether the Project will adversely affect visibility related values in certain areas called Class I areas.

With respect to the comments that EPA must ensure that businesses help the environment rather than hurt it, and that EPA must live up to our moral standards and stand up for what is best for the people and the earth, we note that the conditions in the permit are based on the use of BACT to limit emissions of CO, NO_x, PM and PM_{10} to the greatest extent feasible. The available information indicates that with this technology installed, the Project will have a relatively minor effect on air quality. The Project's impacts are well below (in all cases, less than 6 percent of) the applicable NAAQS for the pollutants regulated under the PSD permit. We also note that one of the fundamental purposes of the PSD permitting program is to ensure that economic growth occurs in harmony with our clean air resources. One of the ways the PSD program accomplishes this goal is to require that new and modified sources demonstrate that their emissions will not adversely affect an area's compliance with health-based air quality standards. Thus, the PSD program inherently ensures that sources will not adversely affect human health or the environment, as desired by the commenter. Furthermore, considering the environmental conditions of greatest significance in this region and the range of actions EPA and State and local government agencies are currently taking to reduce the risks these conditions pose to health and welfare in these communities, EPA's judgment is that, despite some uncertainties and limitations in available data, the emissions from this source are unlikely to add significant environmental harm to the local communities.

Regarding the commenter's question about references in EPA's public notice to NO_x and NO_2, the commenter is correct that our notice uses both terms. NO_2 is one of multiple oxides of nitrogen that are encompassed by the term "NO_x." Where the term "NO_x" was used in EPA's public notice, we were referring to the fact that the control technology employed at the Project will reduce emissions of all oxides of nitrogen, including NO_2. Later in the document where we referenced NO_2, we were talking about a proposed action pertaining specifically to NO_2 and not the other NO_x constituents. We should also clarify that this commenter's statement regarding NO_x violations in or around the city of Avenal is factually incorrect. First, there is no standard for NO_x. There is an annual average standard for NO_2 for which the Project area is not designated nonattainment and for which there is no violation at any monitoring site anywhere in California. There is also a 1-hour average standard for NO_2 for which the Project area has not yet been designated and for which there is no violation at any monitoring site anywhere in California. We also note that while we regulate NO_x as a precursor to ozone, the Project area is nonattainment for ozone and the applicable permitting requirements are addressed through the nonattainment NSR program.

2. Comments Received at EPA's April 12, 2011 Public Hearing

1. **Comment:** The commenter expressed support for the Project, stating that we need more power and that the proposed Project should be better than nuclear power. This commenter also stated that the Project would provide jobs and be good for the California economy.

   Response: We acknowledge the commenter's support for the Project.

2. **Comment:** Two commenters spoke at EPA's public hearing about EPA's environmental justice analysis. The first commenter stated that this analysis was nothing more than a summary of general population statistics and general information about the health impacts of pollution, and that it basically had zero information on the probable impacts of increasing the NO_2 pollution in the region around the Project. The commenter said the assessment acknowledges that EPA cannot reach any definitive conclusion about the specific human health or environmental impacts of short-duration NO_x emissions from the Project on minority and low-income populations but that was exactly what the EPA was tasked with doing.

   The commenter says that a number of existing impacts on the communities of Kettleman City and Huron need to be addressed in the EJ analysis, including pollution from the nearby Highway 5, an unexplained birth defect cluster and expansion of a hazardous waste facility. The commenter stated that it does not make any sense to allow additional pollution in this area which is severely compromised by environmental pollution.

   The commenter additionally stated that the new NO_2 standard was passed by the EPA to protect public health recognizing that the old standard failed to do so and that by the company's own calculation, the addition of the Avenal Power Plant will exceed the new standard.

   The commenter noted that the EJ Assessment based its analysis on two other communities in the valley (Hanford and Visalia), which the commenter says are outside of the 25 kilometer radius EPA set for determining adverse impacts, and which the commenter says are not reflective of the conditions in Avenal and Kettleman, or Huron. The commenter says that the communities around the Project have minority populations of above 90 percent whereas Visalia and Hanford both are around 50 percent minority and are some of the more economically-successful communities in the area. Additionally, the commenter stated that neither Visalia nor Hanford sits adjacent to Interstate Highway 5, the largest interstate highway we have in California. In addition, with the expansion of the hazardous waste facility, the commenter asserts the area will see additional truck traffic and idling of trucks in Kettleman City. For these reasons, the commenter says the monitoring data in the EJ assessment are not reflective of conditions in the communities near the Project site. The commenter states that EPA must do a better job of determining what background levels of

pollution are felt by these communities. Further, the commenter said that even if EPA required the permit applicant to comply with air quality standards, they are still not sufficient to protect public health in this area given the other environmental burdens including the birth defects, high rates of asthma, contaminated drinking water, exposure to pesticides, the hazardous waste facility, the proximity to I-5 and Highway 41, and the area's nonattainment for both $PM_{2.5}$ and ozone. The commenter concluded that this is the wrong place to site the Project.

The second commenter stated that EPA's proposal to approve the Avenal application without a demonstration that the source will not cause or contribute to a violation of the 1-hour NO_2 standard or SO_2 standard and to not require the source to meet the emissions limitation for GHG violates the CAA. The commenter stated the plain language of the Act defines the applicability of these requirements at the time construction commences prior to the issuance of the PSD permit and that neither the Act nor the regulations provide EPA with the authority to waive these requirements.

This commenter additionally stated EPA's stated grounds for grandfathering the Avenal Energy Project from these requirements are each fatally flawed. According to the commenter, the statement that the Project will satisfy the old requirements in no way provides a basis for exempting the Project from the current requirements. In addition, with regard to the timing of the permit, the commenter says the Supplemental SB fails to note that EPA could not have issued the permit prior to receiving the ESA analysis by the Fish and Wildlife Service, which was not concluded until August of 2010.

With regard to the modeling challenges EPA says were experienced, the commenter says that these same challenges must apply to all applicants and EPA cannot simply pick and choose who must comply and who is exempted from the requirements.

Regarding EPA's claim of equitable authority, the commenter says the case law from which this authority was derived is misapplied and inapplicable to the current situation.

The commenter argued that EPA's proposal creates a juxtaposition between two or more issues. Specifically, if the exemption creates a policy applicable to other permit applicants, then it violates the Administrative Procedure Act for failure to conform to the notice and comment rulemaking. On the other hand, if the exemption is only applicable to the Avenal Project, then it violates the Equal Protection Clause of the U.S. Constitution.

Finally, the commenter stated that EPA's attempts to remove authority from the Regional Administrator is unlawful because regulatory authority to issue PSD permits is specifically granted to Regional Administrators under 40 CFR Section 124 and to change this codified delegation requires formal notice and comment rule making under the Administrative Procedure Act.

Response: Regarding the commenters' concerns about environmental justice issues, including the content of our EJ analysis, existing impacts on the community, the possibility that the Project will exceed the 1-hour NO_2 standard, and various issues with monitoring

data used in the analysis, we refer to our responses to comments 23, 24, 26, 28 and 29 in Section II.B.1, above. Regarding the second commenter's concerns related to EPA's proposal to grandfather the Project from 1-hour NO_2 and SO_2 and GHG requirements, our responses to comments 1-10 in Section II.B.1 are applicable.

3. **Comment:**[19] EPA received a number of additional comments at our April 12, 2011 public hearing expressing opposition to the Project and stating that EPA should not issue the permit. The reasons cited by the commenters include the following:
    - People must comply with new laws when they are passed, and cannot choose which laws to comply with, so the applicant should also comply with the current law;
    - The San Joaquin Valley already has existing air quality problems including nonattainment for ozone and $PM_{2.5}$, and the pollution from the Project will be detrimental to the community;
    - EPA must take into account the best interests of the residents;
    - The Project is surrounded by communities of minorities, including farm workers, who do not have health insurance, who get paid minimum wage and who may not be able to afford medications or healthcare;
    - In addition to environmental injustice, this proposal represents economic injustice and environmental racism;
    - The power from the Project will not be for the community of Avenal but will be dispersed throughout the State. In addition, Avenal has a 10 MW solar farm and does not need the power plant;
    - The surrounding area including Kettleman City suffers from an unexplained high rate of birth defects and miscarriages;
    - The area already suffers from other environmental burdens including a large number of sources of pollution, proximity to I-5, potential exposure to pesticides, proximity to a hazardous waste dump, contaminated water and trash problems;
    - Some members of the community did not know about the Project and they have a right to know;
    - There have been no studies on the health of residents in Avenal;
    - EPA has never listened to residents in the local area; and
    - EPA is violating our own promise to uphold EJ.

    Response: With regard to the comments about existing air quality and other environmental burdens in the area, our responses to comments 23 and 29 in Section II.B.1 are applicable. The response to comment 23 also addresses the notion that EJ concerns justify rejection of the PSD permit. With regard to comments about the need for the Project, our response to comment 7 in Section II.A.1 of this document is applicable.

    Regarding the comment that some members of the community were not notified of the Project, we generally agree that interested residents should be given an opportunity to provide comments on EPA's proposal. That is why, for each PSD permit we propose, we carefully follow our regulations at 40 CFR Part 124, which set forth requirements for notifying the public of our actions. In this case, we not only met the requirements of Part

[19] See footnote 11.

124 but we went substantially beyond those requirements. See our responses to comments 1, 2, 3, 20 and 24 in Section II.A.1 for information about additional efforts EPA made to provide additional public notice of our proposal.

Regarding the comment that there have been no studies on the health of residents in Avenal, we note that such studies are not among the requirements of the PSD program. We note that the permit ensures compliance with the NAAQS for the pollutants regulated under the permit. The NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly and asthmatics, as discussed in detail in response to comment 23 in Section II.B.1 above.

Finally, regarding the comments that the power from the Project will be dispersed throughout the State and that the city of Avenal already has a 10 MW solar plant and does not need the Project, please see response to comment 7 in Section II.A.1 above.

4. **Comment:** Two commenters stated the amount of security at the hearing was intimidating to the public.

   Response: It is EPA's standard procedure to inform the local authorities when we hold an event in a given area; it is ultimately the decision of those authorities as to whether officers will be present at the event and, if so, how many. We regret that some people may have felt intimidated by the amount of security at the hearing but we believe the aspects of the hearing that we could control were conducive to public participation.

5. **Comment:** One commenter requested that EPA do a better job to make information available to the community about what is going on and when our public hearings occur.[20]

   Response: EPA appreciates this comment. While we note that, as discussed above in responses to comments 1, 2, 3, 20 and 24 in Section II.A.1, EPA went above and beyond the minimum requirements for providing the public with notice of our proposed action and an opportunity to comment, we continually look for ways to improve how we provide notice to the community concerning actions of local interest.

[20] Participants at the March 23, 2011 meeting held by Administrator Jackson and Regional Administrator Blumenfeld discussed in footnote 11 also requested a website the participants may refer to for updates about their demands.

III. Clarifications and Errata Corrections in Final Permit

The following is a list of clarifications and errata corrections for the *Avenal Energy Project (SJ 08-01) Prevention of Significant Deterioration Permit, Final Permit Conditions*. These corrections are in addition to those described above in this Response to Comments document.

1. COVER SHEET

The cover sheet titled "Prevention of Significant Deterioration Permit Issued Pursuant to the Requirements of 40 CFR § 52.21" has been added, and does not result in changes to the specific terms and conditions that were included in the proposed permit.

2. PROJECT DESCRIPTION

- We have added a brief description of the function of the natural gas-fired auxiliary boiler, which now reads as follows:

  Additional equipment includes a natural gas-fired auxiliary boiler, which is used to provide steam for auxiliary purposes such as when the plant is off-line or during startup, equipped with an ultra low-NOx burner, a natural gas-fired emergency generator … an intercooler/aftercooler.

- We have refined the description of PM_{10} to be more accurate; therefore, the last paragraph of this section now reads as follows:

  The Facility is subject to the Prevention of Significant Deterioration (PSD) Program for emissions of Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Particulate Matter (PM), and Particulate Matter ~~under~~ of less than or equal to 10 micrometers (µm) in diameter (PM_{10}).

3. EQUIPMENT LIST, Condition X.C.1, and Condition X.F.1.d

- We have replaced, where applicable, the reference to "NO_2" with "NO_x". Revisions have been made to the following sections of the permit:
  - In the Equipment List table, the fourth bullet for GEN1 and GEN2 now reads as follows:

    Emissions of ~~NO_2~~ NO_x and CO controlled by Dry Low-NO_x (DLN) Combustors, Selective Catalytic Reduction (SCR), and an Oxidation Catalyst (Ox-Cat)

  - In the Equipment List table, the second bullet for D2 now reads as follows (along with revisions discussed in Response to Comment 37):

    Emissions of ~~NO_2~~ NO_x and CO controlled by a ~~Non-Selective Catalytic Reduction (NSCR) system~~ post-combustion integrated SCR/oxidation catalyst system

  - In Condition X.C.1, Combustion Turbine Generator (CTG) Emission Limits, the excerpt below of the table of emission limits now reads as follows:

~~NO_2~~ NO_x	• 13.55 lb/hr • 1-hr average • 2.0 ppmvd @ 15% O_2	• 17.20 lb/hr • 1-hr average • 2.0 ppmvd @ 15% O_2

- In Condition X.F.1.d, the first sentence of the condition now reads as follows:
  The initial performance test conducted after initial startup shall use the test procedures for a "high NO_2 emission site," as specified in San Diego Test Method 100, to measure ~~NO_2~~ NO_x emissions.

4. **Condition II. PERMIT NOTIFICATION REQUIREMENTS**
   We have more accurately described the notification method; therefore, the first sentence now begins as follows:
   Permittee shall notify EPA Region IX ~~in writing~~by letter or by electronic mail of the:

5. **Condition VI. TRANSFER OF OWENRSHIP**
   We have replaced the reference to facilities with "Facility." The first sentence of this condition now reads as follows:
   In the event of any changes in control or ownership of the ~~facilities~~ Facility to be constructed, this PSD Permit shall be binding on all subsequent owners and operators.

6. **Condition X.D.1**
   We have revised this condition to describe more accurately the intent of the startup period definition. Therefore, Condition X.D.1. now reads as follows:
   Startup is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operations and demonstrate compliance with Conditions X.C ~~after startup has ceased~~.

7. **Condition X.E.5**
   We have revised this condition to describe more accurately the intent of restrictions of the operations of Units D2 or D3. Therefore, Condition X.E.5 now reads as follows:
   Units D2 or D3 shall not operate during ~~a~~ startup ~~hour~~ of GEN1 or GEN2, except when Units D2 or D3 are required for emergency operations.

8. **Condition X.G.1.c.iv.**
   We have updated the particulate matter test requirements under this condition to reflect revisions to EPA Methods 201A and 202 that became effective on January 1, 2011. As a result of these revisions, OTM-027 no longer exists and we have therefore deleted the reference to OTM-027 from Condition X.G.1.c.iv. In addition, EPA's revisions of Method 202 affected the three test procedures described in proposed permit Condition X.G.1.c.iv.a. through c. As a result, we have deleted those test methodology provisions. Condition X.G.1.c.iv now reads as follows:
   iv. EPA Methods 5 and 202, or Methods 201A and 202, for both PM and PM_{10}, in accordance with the test methods set forth in 40 CFR § 60.8, ~~and~~ 40 CFR Part 60 Appendix A, and 40 CFR Part 51 Appendix M. In lieu of Method 202, the Permittee

may use EPA Conditional Test Methods for particulate matter~~:~~ CTM-039. ~~Or OTM-027. If Method 202 is used, the test methodology must include:~~

~~a. one hour nitrogen purge~~

~~b. the alternative procedure described in section 8.1 of Method 202 to neutralize the sulfuric acid~~

~~c. evaporation of the last 1 ml of the inorganic fraction by air drying following evaporation of the bulk of the 110mpinge water in a 105 degrees C oven as described in the first sentence of section 5.3.2.3 of Method 202.~~

= = = END = = =

Appendix A

Supplemental Evaluation of Best Available Control Technology

The Avenal Energy Project (Project) is required to use best available control technology (BACT) on the combustion turbine generators (CTGs)/heat recovery steam generators (HRSGs), the auxiliary boiler, and the air-cooled condenser (ACC) for regulated pollutants, in accordance with the requirements of the federal Prevention of Significant Deterioration (PSD) regulations. For sources subject to PSD, BACT is defined in 40 CFR 52.21(j) as:

> "an emissions limitation…based on the maximum degree of reduction for each pollutant subject to regulation under the Clean Air Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant…"

The regulated pollutants for which the federal PSD BACT requirement is applicable are nitrogen oxides (NOx), carbon monoxide (CO), particulate matter (PM), and particulate matter with nominal aerodynamic diameter less than or equal to 10 microns (PM_{10}). The emission rates and control technologies determined to be BACT for this project are discussed in detail in the following sections. For the CTGs/HRSGs, separate determinations are provided for normal operation and startup/shutdown operation.

1 Steps in a Top-Down BACT Analysis

1.1 Step 1 – Identify All Possible Control Technologies

The first step in a top-down analysis is to identify, for the emissions unit and pollutant in question, all available control options. Available control options are those air pollution control technologies or techniques, including alternate basic equipment or processes, with a practical potential for application to the emissions unit in question. The control alternatives should include not only existing controls for the source category in question, but also, through technology transfer, controls applied to similar source categories and gas streams.

BACT must be at least as stringent as what has been achieved in practice (AIP) for a category or class of source. Additionally, USEPA guidelines require that a technology that is determined to be AIP for one category of source be considered for transfer to other source categories. There are two types of potentially transferable control technologies: (1) exhaust stream controls, and (2) process controls and modifications. For the first type, technology transfer must be considered between source categories that produce similar exhaust streams. For the second type, technology transfer must be considered between source categories with similar processes.

Candidate control options that do not meet basic project requirements (i.e., alternative basic designs that "redefine the source") are eliminated at this step.

1.2 Step 2 – Eliminate Technologically Infeasible Options

To be considered, the candidate control option must be technologically feasible for the application being reviewed.

1.3 Step 3 – Rank Remaining Control Options by Control Effectiveness

All feasible options are ranked in the order of decreasing control effectiveness for the pollutant under consideration. In some cases, a given control technology may be listed more than once, representing different levels of control (e.g., the use of SCR for control of NOx may be evaluated at 2 and 2.5 parts per million by volume, dry [ppmvd]). Any control option less stringent than what has been already achieved in practice for the category of source under review must also be eliminated at this step.

1.4 Step 4 – Evaluate Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

To be required as BACT, the candidate control option must be cost effective, considering energy, environmental, economic, and other costs. The most stringent control technology for control of one pollutant may have other undesirable environmental or economic impacts. The purpose of Step 4 is to either validate the suitability of the top control option or provide a clear justification as to why that option should not be selected as BACT.

Once all of the candidate control technologies have been ranked, and other impacts have been evaluated, the most stringent candidate control technology is deemed to be BACT, unless the other impacts are unacceptable.

1.5 Step 5 – Determine BACT/Present Conclusions

BACT is determined to be the most effective control technology subject to evaluation, and not rejected as infeasible or having unacceptable energy, environmental, or cost impacts.

2 BACT for the CTGs/HRSGs: Normal Operations

2.1 NOx Emissions

2.1.1 Step 1 – Identify All Possible Control Technologies

The emissions unit for which BACT is being considered is a nominal 180 MW gas turbine operating in combined cycle with supplemental duct firing.

Potential control technologies were identified by searching the following sources for determinations pertaining to combustion gas turbines:

- South Coast Air Quality Management District (SCAQMD) BACT Guidelines;
- San Joaquin Valley Air Pollution Control District (SJVAPCD) BACT Clearinghouse;
- Bay Area Air Quality Management District (BAAQMD) BACT Guidelines;

- USEPA Reasonably Available Control Technology (RACT)/BACT/ Lowest Achievable Emission Rate (LAER) Clearinghouse;
- Other districts' and states' BACT Guidelines; and
- BACT/LAER requirements in New Source Review permits issued by District[1] or other air pollution control agency.

The following technologies for control of NOx have been identified:

- A Selective Catalytic Reduction (SCR) system capable of continuously complying with a limit of 2.0 ppmvd @15% oxygen (O_2) (1-hour average).
- A SCONOx system capable of continuously complying with a limit of 2.0 ppmvd @15% O_2 (1-hour average).
- Alternative Basic Equipment:
    - Renewable Energy Source (e.g. Solar, Wind, etc.)

It should be noted that the use of renewable energy in lieu of a combined-cycle gas turbine would "redefine the source." Renewable energy facilities require significantly more land to construct, and need to be located in areas with very specific characteristics. Wind and solar facilities have power generation profiles that cannot match demand; conventional power plants are needed in order to follow demand. The capital costs for wind or solar facilities are substantially higher than for a comparable conventional facility, making financing of such a project significantly different. Nevertheless, these technologies are feasible, and the technical feasibility of renewable energy sources for this specific application will be considered in Step 2.

2.1.2 Step 2 – Eliminate Technologically Infeasible Options

2.1.2.1 Exhaust Stream Controls

The most recent NOx BACT listings for combined-cycle combustion turbines in this size range are summarized in Table 1. The most stringent NOx limit in these recent BACT determinations is a 2.0 ppm[2] limit averaged over a 1-hour averaging period, excluding startups and shutdowns. This level is achieved using DLN combustors and SCR. The La Paloma project was given the option of using SCONOx instead of SCR, with a NOx limit of 2.5 ppm; however, the La Paloma project was actually constructed, and is operating, with SCR.

SCONOx is a NOx reduction system produced by Goal Line Environmental Technologies. It is now distributed by EmeraChem as EMx. This system uses a single catalyst to oxidize both NO and CO, and then a regeneration system to convert the NO_2 to N_2 and water vapor. The system does not use ammonia as a reagent. The EMx process has been demonstrated in practice on much smaller gas turbines, including Redding Electric Utility's (REU) Unit 5, a 43-MW Alstom GTX100 combined-cycle gas turbine. While the technology has never been demonstrated on a gas turbine the size of the 7FA, the technology is considered by the manufacturer to be scalable.

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[1] Any Air Quality Management District or Air Pollution Control District in California.

[2] All turbine/HRSG exhaust emissions concentrations shown are by volume, dry corrected to 15% O_2.

TABLE 1
Recent NOx BACT Determinations for Combustion Turbines/HRSGs

Facility	District/State	NOx Limit (ppmc[a])	Averaging Period (hours)	Control Method Used	Date Permit Issued	Source
Gateway Generating Station	BAAQMD	2.0	1	DLN/SCR	July 2008 (proposed permit)	BAAQMD
Colusa Generating Station	EPA Region 9	2.0	1	DLN/SCR	May 2008	EPA AQIA
Russell City Energy Center	BAAQMD	2.0	1	DLN/SCR	June 2007	BAAQMD website
Blythe Energy LLC (Blythe II)[b]	MDAQMD	2.0	3	DLN/SCR	April 2007	PSD permit
San Joaquin Valley Energy Center	EPA Region 9	2.0	1	DLN/SCR	August 2006	PSD permit
Mountainview Power	SCAQMD	2.0	1	DLN/SCR	2004	PSD amendment
Magnolia Power Project	SCAQMD	2.0	3	DLN/SCR	February 2004	SCAQMD website
Vernon City Power & Light	SCAQMD	2.0	2	DLN/SCR	February 2004	SCAQMD website
PSO Southwestern Power Plant	Oklahoma	9.0	--	DLN	February 2007	EPA RBLC
Rocky Mountain Energy Center	Colorado	3.0	1	DLN/SCR	May 2006	EPA RBLC
Sierra Pacific Power Company	Nevada	2.0	3	DLN/SCR	August 2005	EPA RBLC
Wanapa Energy Center	Oregon	2.0	3	DLN/SCR	August 2005	EPA RBLC
Crescent City Power, LLC	Louisiana	3.0	Annual	DLN/SCR	June 2005	EPA RBLC
Berrien Energy, LLC	Michigan	2.5	24	DLN/SCR	April 2005	EPA RBLC
Turner Energy Center[c]	Oregon	2.0	1	DLN/SCR	January 2005	EPA RBLC

Notes:

a. parts per million by volume, dry @ 15% O_2

b. Construction on hold.

c. RBLC record indicates that project will not be built.

The SCR system uses ammonia injection to reduce NOx emissions. SCR systems have been widely used in combined-cycle gas turbine applications of all sizes, including the 7FA and the larger H-class. The SCR process involves the injection of ammonia into the flue gas stream via an ammonia injection grid upstream of a reducing catalyst. The ammonia reacts with the NOx in the exhaust stream to form N_2 and water vapor. The catalyst does not require regeneration, but must be replaced periodically—approximately every 3 years.

Either SCR or SCONOx technology, in combination with dry low-NOx (DLN) combustion, is capable of achieving a NOx emission level of 2.0 ppmvd@ 15% O_2. Neither has been demonstrated to consistently achieve lower emission levels in large turbines.

2.1.2.2 Alternative Basic Technology

Solar Thermal

Solar thermal facilities collect solar radiation, then heat a working fluid (water or a hydrocarbon liquid) to create steam to power a steam turbine generator. All solar thermal facilities require considerable land for the collection field and are best located in areas of high solar incident energy per unit area. In addition, power is only generated while the sun shines, so the units do not supply power at night or on cloudy days. The Avenal Project parcel is not sufficiently large to be feasible for a commercial solar power plant. Furthermore, a solar power plant would not meet the project's objective of providing firming capability for intermittent renewable resources such as solar and wind energy projects. For these reasons, a solar power plant is rejected as BACT for this application.

Wind

Wind power facilities use a wind-driven rotor to turn a generator to generate electricity. Only limited sites in California have an adequate wind resource to allow for the economic construction and operation of large-scale wind generators. Most of these sites have already been developed or are remote from electric load centers and have little or no transmission access. Even in prime locations the wind does not blow continuously, so power is not always available. Due to the lack of availability of good sites, limited dependability, and relatively high cost, this technology is not feasible for this project. Furthermore, a wind power plant would not meet the project's objective of providing firming capability for intermittent renewable resources such as solar and wind energy projects. For these reasons, a wind power plant is rejected as BACT for this application.

Other alternatives

A number of other alternative generating systems were described in the Alternatives Analysis Section (Section 5.0) of the Application for Certification. That discussion is included as Attachment 1. These additional analyses failed to identify an alternative generating technology that was technically feasible for this site and that would meet the project's objectives.

2.1.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

Both SCR and SCONOx technologies, each in combination with dry low-NOx (DLN) combustion, are capable of achieving a NOx emission level of 2.0 ppmvd @ 15% O_2. They are therefore ranked together.

2.1.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

The use of SCR will result in ammonia emissions due to an allowable ammonia slip limit of 10 ppmvd @ 15% O_2. A health risk screening analysis of the proposed project using air dispersion modeling showed the acute health hazard index and a chronic health hazard index each to be much less than 1, based on an ammonia slip limit of 10 ppmv @ 15% O_2. In accordance with the District's Integrated Air Toxics program and currently accepted practice, a hazard index below 1.0 is not considered significant. Therefore, the toxic impact of the ammonia slip resulting from the use of SCR is deemed to be not significant, and is not a sufficient reason to eliminate SCR as a control alternative.

The ammonia emissions resulting from the use of SCR may have another environmental impact through the potential to form secondary particulate matter such as ammonium nitrate. Because of the complex nature of the chemical reactions and dynamics involved in the formation of secondary particulates, it is difficult to estimate the amount of secondary particulate matter that would be formed from the emission of a given amount of ammonia. However, the SJVAPCD has stated that because of high background levels of ammonia, the formation of ammonium nitrate and ammonium sulfate in the San Joaquin Valley air basin is limited by the amount of nitrogen and sulfur oxides available for the formation of nitrates and sulfates, and not driven by the amount of ammonia in the atmosphere. Therefore, ammonia emissions from the proposed SCR system are not expected to contribute significantly to the formation of secondary particulate matter within the San Joaquin Valley air basin.

A second potential environmental impact that may result from the use of SCR involves the storage and transport of aqueous or anhydrous ammonia.[3] Although ammonia is toxic if swallowed or inhaled and can irritate or burn the skin, eyes, nose, or throat, it is a commonly used material that is typically handled safely and without incident, especially in an agricultural region like the San Joaquin Valley. The project operator will be required to develop and maintain a Risk Management Plan (RMP) and to implement a Risk Management Program to prevent accidental releases of ammonia. The RMP provides information on the hazards of the substance handled at the facility and the programs in place to prevent and respond to accidental releases. The accident prevention and emergency response requirements reflect existing safety regulations and proven industry safety codes and standards. Thus, the potential environmental impact due to aqueous ammonia use at the Project is minimal and does not justify the elimination of SCR as a control alternative.

Regeneration of the EMx catalyst (SCONOx) is accomplished by passing hydrogen gas over an isolated catalyst module. The hydrogen gas is generated by reforming steam, so additional steam would be required beyond that for which the project is designed. This

[3] The Project proposes to use the less concentrated, safer aqueous form of ammonia.

may require an increase in the size of the auxiliary boiler, and would result in an increase in expected boiler operation and emissions.

2.1.4.1 "Achieved in Practice" Criterion

While there are no formal "achieved in practice" criteria in the SJVAPCD, the SCAQMD has established formal criteria for determining when emission control technologies should be considered achieved in practice (AIP) for the purposes of BACT determinations. The criteria include the elements outlined below.

- Commercial Availability: At least one vendor must offer this equipment for regular or full-scale operation in the United States. A performance warranty or guarantee must be available with the purchase of the control technology, as well as parts and service.
- Reliability: All control technologies must have been installed and operated reliably for at least six months. If the operator did not require the basic equipment to operate daily, then the equipment must have at least 183 cumulative days of operation. During this period, the basic equipment must have operated (1) at a minimum of 50% design capacity; or (2) in a manner that is typical of the equipment in order to provide an expectation of continued reliability of the control technology.
- Effectiveness: The control technology must be verified to perform effectively over the range of operation expected for that type of equipment. If the control technology will be allowed to operate at lesser effectiveness during certain modes of operation, then those modes of operation must be identified. The verification shall be based on a performance test or tests, when possible, or other performance data.

Each of these criteria is discussed separately below for SCR and for EMx.

SCR Technology – SCR has been achieved in practice at numerous combustion turbine installations throughout the world. There are several utility-scale combined-cycle projects that limit NOx emissions to 2.0 ppm, including the Mountainview Power Plant in San Bernardino County; the Inland Empire Energy Center in Riverside County; and the Cosumnes Power Plant in Sacramento County. An evaluation of the proposed AIP criteria as applied to the achievement of extremely low NOx levels (2.0 ppm and lower) using SCR technology is summarized below.

- Commercial Availability: SCR technology is available with standard commercial guarantees for NOx levels at least as low as 2 ppm. Consequently, this criterion is satisfied.
- Reliability: SCR technology has been shown to be capable of achieving NOx levels consistent with a 2.0 ppm permit limit during extended, routine operations at several commercial power plants. There are no reported adverse effects of operation of the SCR system at these levels on overall plant operation or reliability.
- Effectiveness: SCR technology has been demonstrated to achieve NOx levels of 2.0 ppm and less. Short-term excursions have resulted in NOx concentrations above the permitted level of 2.0 ppm; however, these excursions have not been associated with diminished effectiveness of the SCR system. Rather, these excursions have

been associated with SCR inlet NOx levels in excess of those for which the SCR system was designed.

- Conclusion: SCR technology capable of achieving NOx levels of 2.0 ppm is considered to be achieved in practice. The permit limits for the proposed project CTG/HRSG include a NOx limit of 2.0 ppm. This proposed limit is consistent with the available data.

EMx Technology – EMx has been demonstrated in service in five applications: the Sunlaw Federal cogeneration plant, the Wyeth BioPharma cogeneration facility, the Montefiore Medical Center cogeneration facility, the University of California San Diego facility, and the City of Redding Power Plant. The combustion turbines at these facilities are much smaller than for the proposed project turbine. The largest installation of the EMx system is at the Redding Power Plant. The Redding Power Plant currently consists of a single combined-cycle 43 MWe Alstom GTX100 combustion turbine with a permitted NOx emission rate of 2.5 ppm. There is a second 43 MWe unit under construction at the Redding Power Plant, planned to be equipped with EMx, but that unit has not begun operation.

A review of NOx continuous emissions monitoring (CEM) data obtained from the EPA's Acid Rain program website[4] indicates a mean NOx level for the Redding Unit 5 of less than 1.0 ppm during the period from 2002 to 2007. After the first year of operation, Unit 5 has experienced only a few hours of non-compliance per year (fewer than 0.1% of the annual operating hours exceed the NOx permit limit of 2.5 ppm). At the lower NOx limit of 2.0 ppm that will be required for the proposed project, the Redding CEM data show that the number of non-compliant hours increases to approximately 0.2% of the annual operating hours. The experience at the City of Redding Plant indicates the ability of the EMx system to control NOx emissions to levels of 2.0 ppm and less. These data do not indicate the ability to consistently achieve NOx levels below 2.0 ppm, notwithstanding the lower annual average emission rate. This is due to the cyclical nature of EMx NOx levels in between plant shutdowns and schedule catalyst cleanings.

Based on this information, the following paragraphs evaluate the proposed AIP criteria as applied to the achievement of extremely low NOx levels (2.0 ppm) using EMx technology.

- Commercial availability: While a proposal has not been sought, presumably EmeraChem Power would offer standard commercial guarantees for the proposed project. Consequently, this criterion is expected to be satisfied.

- Reliability: As discussed above, based on a review of the CEM data for Redding Unit 5 the EMx system complied with the 2.0 ppm NOx permit limit but with a few hours each year of excess emissions (approximately 3% of annual operating hours following the first year, and approximately 2% following the second year, dropping to approximately 0.1% after 4 years). This level of performance was also associated with some significant operating and reliability issues. According to a June 23, 2005 letter from the Shasta County Air Quality Management District,[5] repairs to the EMx

[4] Available at http://camddataandmaps.epa.gov/gdm/index.cfm?fuseaction=prepackaged.results

[5] Letter dated June 23, 2005, from Shasta County Air Quality Management District to the Redding Electric Utility regarding Unit 5 demonstration of compliance with its NOx permit limit.

system began shortly after initial startup and have continued during several years of operation. Redesign of the EMx system was required due to a problem with the reformer reactor combustion production unit that led to sulfur poisoning of the catalyst, despite the sole use of low-sulfur, pipeline quality natural gas as the turbine fuel. In addition, the EMx system catalyst washings had to occur at a frequency several times higher than anticipated during the first three years of operation, which resulted in substantial downtime of the combustion turbine. Since the REU installation is the most representative of all of the EMx-equipped combustion turbine facilities for comparison to the proposed Project, the problems encountered at REU bring into question the reliability of the EMx system for the proposed project.

- Effectiveness: The EMx system at the REU power plant has recently been able to demonstrate compliance with a NOx level of 2.0 ppm. However, the permit limit for the REU unit remains at 2.5 ppm, and there are no EMx-equipped facilities of a size similar to that of the proposed project. Consequently, due to the lack of actual performance data, there is some question regarding the effectiveness of the EMx systems on large combustion turbine projects.
- Conclusion: EMx systems are capable of achieving NOx levels of 2.0 ppm and less. However, the operating history at the Redding Power Plant does not support a conclusion that this technology is achieved in practice based on SCAQMD guidelines, due mainly to reliability issues.

2.1.4.2 Summary of Achieved in Practice Evaluation

SCR's capability to consistently achieve 2.0 ppmvd NOx (1-hour average) in large turbines has been demonstrated by numerous installations. SCONOx's ability to consistently achieve 2.0 ppmvd in large turbines has not been demonstrated. An emission level of 2.0 ppm NOx has therefore been achieved in practice, and any BACT determination must be at least as stringent as that.

2.1.4.3 Technologically Feasible/Cost Effective Criterion

No candidate technology with lower emission levels than those achieved in practice has been identified.

2.1.5 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent level achieved in practice, federal NSPS, or district prohibitory rule. Based upon the results of this analysis, the NOx BACT determination of 2.0 ppmvd @ 15% O_2 on a 1-hour average basis made for recently permitted combined cycle turbine projects in SJVAPCD and elsewhere reflects the most stringent NOx emission limit that has been achieved in practice. No more stringent level has been suggested as being technologically feasible. Therefore, BACT for NOx for this application is any technology capable of achieving 2.0 ppmvd @ 15% O_2 on a 1-hour average basis.

Because both SCR and EMx are expected to achieve the proposed BACT NO_x emission limit of 2.0 ppmvd @ 15% O_2 averaged over one hour, and neither will cause significant energy, economic, or environmental impacts, neither can be eliminated as viable control alternatives. The concern remains regarding the long-term effectiveness of EMx as a control technology because the technology has not been demonstrated on the turbine

used in this project. For this reason, SCR has been selected as the NOx control technology to be used for the Project.

The Project facility will be designed to meet a NOx level of 2.0 ppmvd @ 15% O_2 on a 1-hour average basis using SCR.

2.2 CO Emissions

2.2.1 Step 1 – Identify All Possible Control Technologies

Potential control technologies were identified by searching the following sources for determinations pertaining to combustion gas turbines:

- SCAQMD BACT Guidelines;
- SJVAPCD BACT Clearinghouse;
- BAAQMD BACT Guidelines;
- USEPA RACT/BACT/LAER Clearinghouse;
- Other districts' and states' BACT Guidelines; and
- BACT/LAER requirements in New Source Review permits issued by Districts or other air pollution control agencies.

Oxidation catalyst technology is commonly used to control CO emissions. Combustion controls alone have been determined to be BACT in some regions, but catalyst technology is necessary to achieve the emission levels commonly required in California. Because combustion controls alone will not achieve the stringent levels achievable by other candidate technologies, combustion controls alone will not be considered as a potential control technology in this analysis.

Alternative Basic Equipment:, including renewable energy sources such as solar and wind, has also been identified as a technology for the control of CO emissions.

2.2.2 Step 2 – Eliminate Technologically Infeasible Options

The only technology under consideration is use of an oxidation catalyst in combination with combustion controls. This combination of technologies has been demonstrated to be feasible in many applications. No other technologies capable of comparable levels of control have been identified. As a result, the goal of the rest of this analysis is to determine the appropriate emission limit that constitutes BACT for this application.

The ARB's BACT guidance document for electric generating units rated at greater than 50 MW indicates that BACT for the control of CO emissions from stationary gas turbines used for combined-cycle and cogeneration power plants is 6 ppmvd @ 15% O_2.

The BAAQMD's BACT guidelines specify that, for natural gas-fired combined-cycle gas turbines larger than 40 MW, a CO limit of 4 ppmv @ 15% O_2 has been "achieved in practice."

The SJVAPCD's BACT guidelines contain determinations for gas turbines larger than 50 MW with uniform load and heat recovery. The District concluded that a CO exhaust concentration of 6 ppmv @ 15% O_2 constituted BACT that had been achieved in practice, while 4.0 ppmv @ 15% O_2 is considered technologically feasible.

A summary of recent CO BACT determinations for large, combined-cycle gas turbines is shown in Table 2. Similar facilities using oxidation catalysts have been permitted at between 2.0 and 4.0 ppm CO.

There is an important distinction between BACT and the emission limits contained in a permit. BACT is an existing demonstrably achievable emission limit. Achievability may be demonstrated in one of two ways: (1) an existing similar source has consistently and continuously demonstrated compliance with the proposed limit; or (2) the control technology is in use on another source that has enough similarity to make the technology transfer uncontroversial.

The CARB BACT Clearinghouse does not distinguish between these two types of BACT determinations. Muddying the waters still further, some agencies report emission limits that have been accepted by applicants as BACT determinations, when in fact these limits go beyond BACT (that is, they have not been demonstrated in practice, and, while they may be technologically feasible, they may not be cost effective). Once consistent and continuous compliance with the limit has been demonstrated, however, the limit becomes "achieved in practice."

It is therefore important to bear in mind that just because a limit is included in a permit and listed in Table 2 does not mean that the limit is achieved in practice, or even that it is technologically feasible. More information is required to make either determination.

The SJVAPCD recently issued a Final Determination of Compliance for the Avenal Energy Project. At the applicant's request, the FDOC included a 2 ppmc CO limit. Although the District's FDOC and the CEC's Final Staff Assessment both indicated that a CO limit of 2 ppmc went beyond BACT, the District staff have since asserted that the 2 ppmc CO limit should be considered "technologically feasible" for purposes of a BACT determination.

Published prohibitory rules from the BAAQMD, Sacramento Metropolitan AQMD (SMAQMD), San Diego APCD (SDAPCD), SJVAPCD, and SCAQMD were reviewed to identify the CO standards that govern existing natural gas-fired combined-cycle combustion gas turbines. Of the five prohibitory rules reviewed, the SJVAPCD prohibitory rule for combustion gas turbines is the only one that includes an emission limit for CO (200 ppmv @ 15% O_2). The applicable NSPS (40 CFR 60 Subpart KKKK) does not include a CO limit.

This "top-down" CO BACT analysis will consider the following CO emission limitations:

- 2 ppmvd @ 15% O_2
- 3 ppmvd @ 15% O_2
- 4 ppmvd @ 15% O_2

Alternative basic equipment, including renewable energy sources such as solar and wind, was already discussed in Section 2.1.2.2 (Step 2 for NOx BACT on the CTGs/HRSGs). For the same reasons, solar, wind and other renewable energy sources are rejected as CO BACT for this application.

2.2.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The control technologies under consideration are ranked as follows:

- Oxidation catalyst unit capable of achieving 2 ppmvd @ 15% O_2
- Oxidation catalyst unit capable of achieving 3 ppmvd @ 15% O_2
- Oxidation catalyst unit capable of achieving 4 ppmvd @ 15% O_2

2.2.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

This step evaluates any source-specific environmental, energy, or economic impacts which demonstrate that the top alternative listed in the previous step is inappropriate as BACT.

2.2.4.1 "Achieved in Practice" Criterion

As discussed above, BACT may not be less stringent than the most stringent emission limit that has been achieved in practice. The most stringent CO emission limit that has been achieved in practice for a source similar to the one proposed is 4 ppmc.

As shown in Table 2, a number of recent projects have received permits with CO emission limits below 4 ppmc. As discussed below, however, no documentation is available that demonstrates that any of these projects have achieved a more stringent level in practice.

The Magnolia Power Project was permitted with a CO limit of 2 ppm on a 1-hour average basis in 2004 and, according to the SCAQMD staff, has been in operation for several years. EPA staff report that District permit engineers have said that Magnolia completed its performance testing (including for CO) in December 2005. EPA reports that the District source testing staff reviewed the test, and determined the test to be acceptable with all permit conditions and limits being met. However, this indicates only that the Magnolia project met the 2 ppm CO limit during a single initial source test, and provides no information regarding continuous compliance over an extended period. No CEMS data have been provided, and without those data there is no means of determining whether the project has demonstrated continuous compliance with a 2 ppm CO limit during the nearly 4-year period during which the project has apparently been operating. In the absence of CEMS data demonstrating continuous compliance, this installation cannot be the basis for a determination that 2 ppm CO has been achieved in practice.

Even if CEMS data were available, however, the Magnolia permit could not form the basis for a determination that would apply to the proposed project. This is because the NOx limit for the Magnolia permit is 2 ppm averaged over 3 hours. This limit is considered by most permitting agencies to be equivalent to a 2.5 ppm limit averaged over 1 hour.

NOx and CO limits must be considered together, because the combustion conditions that reduce CO tend to increase NOx, and vice versa. To establish a new lower BACT limit for CO, the NOx limit must be taken into account, and must be comparable. Because the NOx limit for the Magnolia project is less stringent than current BACT for NOx, the Magnolia project cannot be used as a basis for demonstrating that 2 ppm CO is

achieved in practice for a turbine that must meet 2 ppmc NOx (1 hour average). It can, however, be used to demonstrate the technological feasibility of CO control.

The Berrien Energy Center project was also permitted with a CO limit of 2 ppm. However, the NOx limit for the project is 2.5 ppm on a 24-hour average basis. As in the case of Magnolia, because the NOx limit for the Berrien project is less stringent than current BACT for NOx, the Berrien project also cannot be used as a basis for demonstrating that 2 ppm CO is achieved in practice for a turbine that must meet 2 ppm NOx on a 1-hour average basis.

The Vernon City Power & Light project was also permitted with a CO limit of 2 ppm. However, the Vernon CTG is based on an Alstom GTX100 gas turbine, which is rated at 43 MW. This is a much smaller gas turbine than the 180 MW F-class gas turbine that will be used at the proposed project, and is considered under a separate SJVAPCD BACT category because of its size. Again, this project cannot be used to demonstrate that the limit has been achieved in practice for this class and category of source.

The Colusa Generating Station (CGS) has been permitted with a 3 ppmc CO limit; however, that project is still under construction so that limit has not yet been achieved in practice at CGS.

Numerous projects have been permitted with and have demonstrated continuous compliance with a 4 ppmc CO limit, so 4 ppmc is considered achieved in practice.

TABLE 2
Recent CO BACT Determinations for Combustion Turbines/HRSGs

Facility	District/State	NOx Limit (ppmc[a])	Averaging Period (hours)	Control Method Used	Date Permit Issued	Source
Russell City Energy Center	BAAQMD	4.0	3	oxidation catalyst	December 2008	BAAQMD website
Colusa Generating Station	EPA Region 9	3.0	3	oxidation catalyst	May 2008	EPA AQIA
Blythe Energy LLC (Blythe II)[b]	MDAQMD	4.0	3	oxidation catalyst	April 2007	PSD permit
San Joaquin Valley Energy Center	EPA Region 9	4.0	1	oxidation catalyst	August 2006	PSD permit
Magnolia Power Project	SCAQMD	2.0	1	oxidation catalyst	February 2004	SCAQMD website
Vernon City Power & Light	SCAQMD	2.0	3	oxidation catalyst	February 2004	SCAQMD website
PSO Southwestern Power Plant	Oklahoma	25	--	oxidation catalyst	February 2007	EPA RBLC
Rocky Mountain Energy Center	Colorado	3.0	--	oxidation catalyst	May 2006	EPA RBLC
Sierra Pacific Power Company	Nevada	3.5	3	oxidation catalyst	August 2005	EPA RBLC
Wanapa Energy Center[c]	Oregon	2.0	3	oxidation catalyst	August 2005	EPA RBLC
Crescent City Power, LLC	Louisiana	4.0[c]	annual	oxidation catalyst	June 2005	EPA RBLC
Berrien Energy, LLC	Michigan	2.0	3	oxidation catalyst	April 2005	EPA RBLC
Turner Energy Center[d]	Oregon	2.0/3.0	1	oxidation catalyst	January 2005	EPA RBLC

Notes:

a. parts per million by volume, dry @ 15% O_2
b. Construction on hold.
c. Separate CO limit set for duct burners; this limit is for turbines only.
d. Not built.

2.2.4.2 Technologically Feasible/Cost Effective Criterion

As discussed above, a CO limit of 4 ppmc has been achieved in practice for the CTGs being considered for the Project. Lower CO limits may be technologically feasible, but have not yet been achieved in practice. EPA's top-down BACT guidance allows the consideration of energy, environmental, economic, and other costs in determining whether an emission limitation considered technologically feasible should also be considered BACT.

Two cost-effectiveness analyses are presented, one based on total cost and one based on incremental cost. The calculations are attached. The calculations follow the procedure outlined in USEPA Office of Air Quality Planning and Standards (OAQPS) guidance. The SJVAPCD cost-effectiveness analysis uses uncontrolled emissions as a baseline and sets a recommended cost threshold for CO of $300 per ton. The uncontrolled CO emissions from the proposed GE 7FA CTGs during normal operation are 9 ppmvd @ 15% O_2. Using the annual normal operation assumptions presented for the project in the AFC, annual CO emissions with 4 ppmc CO control would be 38.1 tpy per turbine, while annual CO emissions controlled to 2 ppmc during normal operation would be 19.0 tpy per turbine, for an annual reduction of 19.0 tpy per turbine. The annualized cost is $63,412 per year per turbine, for a cost effectiveness of $3,329 per ton. This cost exceeds the District's $300 per ton recommended cost threshold, so under this calculation, the 2 ppmc CO limit would not be cost-effective.

The applicant has proposed to meet a 2 ppmc limit on a 3-hour average basis. This level is more stringent than the current BACT achieved in practice.

2.2.5 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent level achieved in practice, required in a federal NSPS or district prohibitory rule, or considered technologically feasible. More stringent levels (e.g., 2 or 3 ppmc) may be technologically feasible, but because the costs of achieving these levels exceed the District's cost threshold and because of other energy and environmental considerations, these lower levels are not considered to be BACT for the proposed project.

Because 4 ppmc has been achieved in practice, and because a more stringent limitation does not meet cost-effectiveness criteria, BACT for CO for the Project turbines is 4 ppmc.

The proposed CO emission limit of 2 ppmvd @ 15% O_2 on a 3-hour average basis is more stringent than the level currently considered BACT.

2.3 VOC Emissions

2.3.1 Step 1 – Identify All Possible Control Technologies

Most VOCs emitted from natural gas-fired turbines are the result of incomplete combustion of fuel. Therefore, most of the VOCs are methane and ethane, which are not effectively controlled by an oxidation catalyst. However, oxidation catalyst technology designed to control CO can also provide some degree of control of VOC emissions, especially the more complex and toxic compounds formed in the combustion process. Therefore, use of an oxidation catalyst is generally considered BACT for VOC.

Alternative Basic Equipment:, including renewable energy sources such as solar and wind, has also been identified as a technology for the control of VOC emissions.

2.3.2 Step 2 – Eliminate Technologically Infeasible Options

The only technology under consideration is use of an oxidation catalyst in combination with combustion controls. This combination of technologies has been demonstrated to be feasible in many applications. No other technologies have been identified which are capable of achieving the same level of control. As a result, the goal of the rest of this analysis is to determine the appropriate emission limit that constitutes BACT for this application.

The CARB's BACT guidance document for electric generating units rated at greater than 50 MW[6] indicates that BACT for the control of POC emissions for combined-cycle and cogeneration power plants is 2 ppmvd @ 15% O_2.

The BAAQMD's BACT guidelines specify that, for natural gas-fired combined-cycle combustion gas turbines larger than 40 MW, a VOC limit of 2 ppmvd @ 15% O_2 has been "achieved in practice."

The SJVAPCD's BACT guidelines contained a determination for gas turbines rated at larger than 50 MW with uniform load and with heat recovery. The SJVAPCD concluded that a VOC exhaust concentration of 2.0 ppmvd @ 15% O_2 constituted BACT that had been achieved in practice, while 1.5 ppmvd @ 15% O_2 is considered technologically feasible.

The SCAQMD database contains BACT determinations for VOC emissions from two natural gas-fired combined-cycle combustion gas turbines at 2.0 ppmvd @ 15% O_2.

Published prohibitory rules from the BAAQMD, SMAQMD, SDCAPCD, SJVAPCD, and SCAQMD were reviewed to identify the VOC standards that govern existing natural gas-fired simple cycle combustion gas turbines. None of the prohibitory rules for combustion gas turbines specify an emission limit for VOC. The applicable NSPS (40 CFR 60 Subpart KKKK) does not include a VOC limit.

This "top-down" VOC BACT analysis will consider the following CO emission limitations:

- 1 ppmvd @ 15% O_2
- 1.5 ppmvd @ 15% O_2
- 2 ppmvd @ 15% O_2

Alternative basic equipment, including renewable energy sources such as solar and wind, was already discussed in Section 2.1.2.2 (Step 2 for NOx BACT on the CTGs/HRSGs). For the same reasons, solar, wind and other renewable energy sources are rejected as VOC BACT for this application.

2.3.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The control technologies under consideration are ranked as follows:

- Oxidation catalyst unit capable of achieving 1 ppmvd @ 15% O_2

[6] Ibid, Table I-1.

- Oxidation catalyst unit capable of achieving 1.5 ppmvd @ 15% O_2
- Oxidation catalyst unit capable of achieving 2 ppmvd @ 15% O_2

2.3.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

This step evaluates any source-specific environmental, energy, or economic impacts which demonstrate that the top alternative listed in the previous step is inappropriate as BACT.

2.3.4.1 "Achieved in Practice" Criterion

A summary of recent VOC BACT determinations for large, combined-cycle gas turbines is shown in Table 3. Similar facilities using oxidation catalysts have been permitted at between 1.0 and 2.0 ppmc VOC.

Compliance with limits below 2 ppmc has not been achieved in practice because neither the Blythe II nor the Turner plant has been constructed or operated. Further, the Crescent City limit of 1.1 ppmc is not comparable to the limits imposed for the other plants cited because it is an annual average limit and not a short-term limit.

Numerous projects have been permitted with and have demonstrated continuous compliance with a 2 ppmc VOC limit, so 2 ppmc is considered achieved in practice.

2.3.4.2 Technologically Feasible/Cost Effective Criterion

As discussed above, a VOC limit of 2 ppmc has been achieved in practice for the CTGs being considered for the Project. Lower VOC limits may be technologically feasible, but have not yet been achieved in practice. EPA's top-down BACT guidance allows the consideration of energy, environmental, economic and other costs in determining whether an emission limitation considered technologically feasible should also be considered BACT.

Two cost-effectiveness analyses are presented, one based on total cost and one based on incremental cost. The calculations are attached. The calculations follow the procedure outlined in OAQPS guidance. The SJVAPCD cost-effectiveness analysis uses uncontrolled emissions as a baseline and sets a recommended cost threshold for VOC of $17,500 per ton. Using the annual normal operation assumptions presented for the project in the AFC, annual VOC emissions with 2 ppmc VOC control would be 8.4 tpy per turbine, while annual VOC emissions controlled to 1 ppmc during normal operation would be 5.8 tpy per turbine, for an annual reduction of 2.6 tpy per turbine. The annualized cost is $63,412 per year per turbine, for a cost effectiveness of $24,627 per ton. This cost exceeds the District's $17,500 per ton recommended cost threshold, so under this calculation, the 1 ppmc VOC limit would not be cost-effective.

The applicant has proposed to meet a 2 ppmc limit on a 1-hour average basis when duct firing is in use, and 1.4 ppm without duct firing. This level meets BACT.

2.3.4.3 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent achieved in practice, required in a federal NSPS or district prohibitory rule, or considered technologically feasible. Based upon the results of this analysis, the VOC emission limits of 2.0 ppmvd @ 15% O_2 are considered to be BACT for the proposed project.

TABLE 3
Recent VOC BACT Determinations for Combustion Turbines/HRSGs

Facility	District/State	NOx Limit (ppmc[a])	Averaging Period (hours)	Duct Fired?	Date Permit Issued	Source
Gateway Generating Station	BAAQMD	2.0	3	yes	July 2008 (proposed permit)	BAAQMD
Colusa Generating Station	EPA Region 9	2.0	1	yes	May 2008	EPA AQIA
Russell City Energy Center	BAAQMD	2.0	3	yes	June 2007	BAAQMD website
Blythe Energy LLC (Blythe II)[a]	MDAQMD	1.0	3	yes	December 2005	CEC website
Magnolia Power Project	SCAQMD	2.0	1	yes	February 2004	SCAQMD website
Vernon City Power & Light	SCAQMD	2.0	1	yes	February 2004	SCAQMD website
Rocky Mountain Energy Center	Colorado	0.0029 lb/MMBtu	--	unknown	May 2006	EPA RBLC
Sierra Pacific Power Company	Nevada	4.0	3	yes	August 2005	EPA RBLC
Crescent City Power, LLC	Louisiana	1.1	annual	no[b]	June 2005	EPA RBLC
Turner Energy Center[c]	Oregon	1.0	3	yes	January 2005	EPA RBLC

Notes:

a. Construction on hold.

b. Separate VOC limit set for duct burners; this limit is for turbines only.

c. RBLC record indicates that project will not be built.

2.4 $PM/PM_{10}/PM_{2.5}$ Emissions

Alternative Basic Equipment:, including renewable energy sources such as solar and wind, has also been identified as a technology for the control of $PM/PM_{10}/PM_{2.5}$ emissions. Such alternative basic equipment was already discussed in Section 2.1.2.2 (Step 2 for NOx BACT on the CTGs/HRSGs). For the same reasons, solar, wind and other renewable energy sources are rejected as $PM/PM_{10}/PM_{2.5}$ BACT for this application.

2.4.1 Achievable Controlled Levels and Available Control Options

PM emissions from natural gas-fired turbines and HRSGs primarily result from carryover of noncombustible trace constituents in the fuel. PM emissions are minimized by using clean burning pipeline quality natural gas with low sulfur content.

The CARB BACT Clearinghouse, as well as the BAAQMD and SJVAPCD BACT guidelines, identify the use of natural gas as the primary fuel as "achieved in practice" for the control of PM_{10} for combustion gas turbines. The SJVAPCD also requires the use of an air inlet filter cooler and a lube oil vent coalescer to remove ambient particulate matter from the inlet air.

The CARB's BACT guidance document for stationary gas turbines used for combined-cycle and cogeneration power plant configurations[7] indicates that BACT for the control of PM emissions is an emission limit corresponding to natural gas with fuel sulfur content of no more than 1 grain/100 standard cubic foot.

Title 40 CFR Part 60 Subpart KKKK contains the applicable NSPS for combustion gas turbines. Subpart KKKK does not regulate PM_{10} emissions.

Published prohibitory rules from the SCAQMD, SJVAPCD, SMAQMD, and SDCAPCD were reviewed to identify the PM_{10} standards that govern natural gas-fired combustion gas turbines. These prohibitory rules do not regulate PM_{10} emissions. The applicable NSPS (40 CFR 60 Subpart KKKK) limits SOx emissions to 0.56 lb/MWh, well above permitted limits for natural gas-fired turbines.

Recent PM_{10} BACT determinations for similarly-sized gas turbines/HRSGs are summarized in Table 4.

2.4.1.1 Determine BACT/Present Conclusions

Based upon the results of this analysis, the SJVAPCD BACT guideline reflects the most stringent PM_{10} emission limit. The District established a requirement for the use of natural gas as the primary fuel to control PM_{10} emissions from combustion gas turbines. Therefore, the use of natural gas as the primary fuel source constitutes BACT for PM_{10} emissions from combustion gas turbines. Through the use of natural gas, the turbine is expected to be able to meet the proposed emission limit of 9.0 lb/hr without duct firing and 11.0 lb/hr with duct firing. These limits are consistent with or lower than the limits shown in the summary table, with the exception of the Blythe II project. Since the Blythe II project has not yet been constructed or operated and no performance data are available, this permit limit is not considered achieved in practice.

[7] Ibid, Table I-2.

TABLE 4
Recent PM_{10} BACT Determinations for Combustion Turbines/HRSGs

Facility	District/State	PM_{10} Limit, no duct firing (lb/hr)	PM_{10} Limit, with duct firing (lb/hr)	Date Permit Issued	Source
Colusa Generating Station	EPA Region 9	12.9	20.0	May 2008	CEC final decision
Russell City Energy Center	BAAQMD	8.6	11.6	June 2007	BAAQMD website
Blythe Energy LLC (Blythe II)	MDAQMD		6.0 [a]	December 2005	CEC website
Magnolia Power Project	SCAQMD	--	11.0	February 2004	SCAQMD website
Vernon City Power & Light	SCAQMD	--	11.0	February 2004	SCAQMD website
Rocky Mountain Energy Center	Colorado	--	0.0074 lb/MMBtu	May 2006	EPA RBLC
Sierra Pacific Power Company	Nevada	--	0.011 lb/MMBtu	August 2005	EPA RBLC
Crescent City Power, LLC	Louisiana	29.6	0.01 lb/MMBtu[b]	June 2005	EPA RBLC
Turner Energy Center[c]	Oregon	--	18	January 2005	EPA RBLC

Notes:

a. Construction on hold.

b. Annual limit.

c. RBLC record indicates that project will not be built.

2.5 SOx Emissions

Alternative Basic Equipment:, including renewable energy sources such as solar and wind, has also been identified as a technology for the control of SOx emissions. Such alternative basic equipment was already discussed in Section 2.1.2.2 (Step 2 for NOx BACT on the CTGs/HRSGs). For the same reasons, solar, wind and other renewable energy sources are rejected as SOx BACT for this application.

2.5.1 Achievable Controlled Levels and Available Control Options

The CARB BACT Clearinghouse, as well as the BAAQMD and SJVAPCD BACT guidelines, identifies the use of PUC-quality natural gas or natural gas with a limit on the sulfur content (i.e., 1 grain/100 scf) as the primary fuel as "achieved in practice" for the control of SOx for combustion gas turbines. The two most recent BACT determinations in the SCAQMD did not determine BACT for SOx.

2.5.1.1 Federal NSPS

Title 40 CFR Part 60 Subpart KKKK contains the applicable NSPS for combustion gas turbines. A combustion gas turbine is subject to a SO_2 emission limit of 0.56 lb/MWh.

2.5.1.2 District Prohibitory Rules

Published prohibitory rules from the BAAQMD, SJVAPCD, and SCAQMD were reviewed to identify the SO_2 standards that govern existing gas turbines.

- BAAQMD Rule 9-9 (Nitrogen Oxides from Stationary Gas Turbines) is the BAAQMD's only prohibitory rule that specifically addresses gas turbines; it does not limit SO_2 emissions. The BAAQMD adopted Rule 9-1 (Sulfur Dioxide) to limit SO_2 emissions from all sources. Rule 9-1 prohibits SO_2 emissions in excess of 300 ppm. No other BAAQMD Rule or Regulation contains a relevant prohibitory rule regulating either the sulfur content in the fuel or the emission of SO_2 from gas turbines.
- SJVAPCD Rule 4703 (Stationary Gas Turbines) is the SJVAPCD's only prohibitory rule that specifically addresses gas turbines; it does not limit SO_2 emissions. The SJVAPCD adopted Rule 4301 (Fuel Burning Equipment) to limit SO_2 emissions from these devices. Rule 4301 specifies a SO_2 emission limit of 200 pounds per hour. The SJVAPCD also adopted Rule 4801 (Sulfur Compounds) to limit emissions of sulfur compounds. Rule 4801 specifies a SO_2 emission limit of 0.2%, or 2,000 ppm.
- SCAQMD Rule 1134 (Emissions of Oxides of Nitrogen from Stationary Gas Turbines) is the SCAQMD's only prohibitory rule that specifically addresses gas turbines; however, it does not limit SO_2 emissions. The SCAQMD adopted Rule 431.1 (Sulfur Content of Gaseous Fuels) to reduce SOx emissions from the burning of gaseous fuels in stationary equipment. Rule 431.1 specifies a sulfur limit of 16 grains/100 scf (as H_2S) in natural gas sold within the SCAQMD. The SCAQMD also adopted Rule 407 (Liquid and Gaseous Air Contaminants) to limit SO_2 emissions from all sources. Rule 407 specifies an emission limit of 2,000 ppm for sulfur compounds (calculated as SO_2).

2.5.1.3 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent limit achieved in practice, federal NSPS, or district prohibitory rule. Based upon the results of this analysis, the CARB database and BAAQMD and SJVAPCD BACT guidelines reflect the most stringent SOx

emission limit. These sources established a requirement for the use of natural gas as the primary fuel to control SOx emissions from combustion gas turbines. Therefore, the use of natural gas as the primary fuel source constitutes BACT for SOx emissions from the gas turbine/HRSG.

3 BACT for the CTG/HRSG: Startup/Shutdown

Startup and shutdown periods are a normal part of the operation of combined-cycle power plants such as the Project. BACT must also be applied during the startup and shutdown periods of gas turbine/HRSG operation. The BACT limits discussed in the previous section apply to steady-state operation, when the turbine, HRSG, and steam turbine have reached stable operations and the emission control systems are fully operational.

3.1 NOx Emissions

3.1.1 Step 1 – Identify All Possible Control Technologies

The following technologies for control of NOx have been identified:

- A Selective Catalytic Reduction (SCR) system capable of continuously complying with a limit of 2.0 ppmvd @15% O_2 (1-hour average)
- A SCONOx system capable of continuously complying with a limit of 2.0 ppmvd @15% O_2 (1-hour average)
- Fast-start technologies (i.e., Rapid Response)
- General Electric OpFlex Startup NOx
- Operating practices to minimize the duration of startup and shutdown

3.1.2 Step 2 – Eliminate Technologically Infeasible Options

During gas turbine startup, there are equipment and process requirements that must be met in sequential order to protect the equipment. Many of these require holding the gas turbine at low loads, where operation is inefficient and emissions are relatively high, to allow the HRSG and steam turbine to warm up, and establish steam turbine seals and condenser vacuum. At low turbine loads, the combustors are not yet operating in lean pre-mix mode so turbine NOx emission rates are also high during startup. In addition, incomplete combustion at low loads results in higher CO and VOC emission rates. Further, the post-combustion controls that are used to achieve additional emissions reductions (SCR and oxidation catalyst) require that specific exhaust temperature ranges be reached to be fully effective. The use of SCR to control NOx is not technically feasible when the surface of the SCR catalyst is below the manufacturer's recommended operating range. When surface temperatures are low, ammonia will not react completely with the NOx, resulting in excess NOx emissions or excess ammonia slip. The oxidation catalyst is not effective at controlling CO emissions when exhaust temperature is below the optimal temperature range. Therefore, exhaust gas controls used to achieve BACT for normal operations are not feasible control techniques during startups and shutdowns.

This "top-down" BACT analysis will consider the following NOx emission limitations:

- General Electric OpFlex Startup NOx
- Operating practices to minimize emissions during startup and shutdown

- Design features to minimize the duration of startup and shutdown

3.1.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

General Electric OpFlex Startup NOx -- GE has a commercially available turn-down technology which it calls "OpFlex™ Start-up NOx Start-up Fuel Heating" package. GE claims that emissions of NOx may be lowered to less than 25 ppm NOx at low-load operation (20% to 50% load), and that "start-up times can be reduced by as much as 30 minutes for a cold start, 15 minutes for a warm restart and 5 minutes for a hot restart." However, GE is not prepared to guarantee these numbers, or any specific level of emissions reductions, for the system at this time.[8]

Operating Practices to Minmize Emissions During Startup and Shutdown -- There are basic principles of operation, or Best Management Practices, that minimize emissions during startups and shutdowns. These Best Management Practices are as follows:

- During a startup, bring the gas turbine to the minimum load necessary to achieve compliance with the applicable NOx and CO emission limits as quickly as possible, consistent with the equipment manufacturers' recommendations and safe operating practices;
- During a startup, initiate ammonia injection to the SCR system as soon as the SCR catalyst temperature and ammonia vaporization system have reached their minimum operating temperatures;
- During a shutdown, once the turbine reaches a load that is below the minimum load necessary to maintain compliance with the applicable NOx and CO emission limits, reduce the gas turbine load to zero as quickly as possible, consistent with the equipment manufacturers' recommendations and safe operating practices; and
- During a shutdown, maintain ammonia injection to the SCR system as long as the SCR catalyst temperature and ammonia vaporization system remain above their minimum operating temperatures.

A key underlying consideration of these Best Management Practices is the overall safety of the plant staff by promoting operation within the limitations of the equipment and systems, and allowing for operator judgment and response times to respond to alarms and trips during the startup sequence.

Design Features to Minimize the Duration of Startup and Shutdown – An additional technique to reduce startup emissions is to minimize the amount of time the gas turbine and HRSG spend in startup. Efforts have been made by turbine and HRSG manufacturers to develop ways of reducing the time required to ramp up the CTG load to where the DLN combustors will be effective and exhaust temperatures will allow the control devices to be effective. For example, Siemens' "Rapid Response" includes the following project features:

[8] General Electric guarantees that "base load" emission rates can be achieved at lower loads with some of their OpFlex options, but does not guarantee lower startup emission rates associated with this technology.

- HRSG design: The HRSG is designed to optimize heat transfer to the tubes, which allows the HRSG to heat up more quickly. This reduces gas turbine hold time at low load, especially during cold startups.
- Auxiliary boiler: An auxiliary steam boiler that provides steam during startup. The auxiliary boiler steam preheats the CTG fuel and provides steam turbine sealing steam prior to CTG startup, thereby allowing the condenser vacuum to be established and the condenser to be in a condition ready to accept steam earlier in the startup cycle.

However, Rapid Response has not yet been demonstrated on an operating gas turbine plant. Although these design features are expected to reduce the duration of startups (and therefore reduce the quantity of startup emissions), the emission reductions cannot be quantified, and these reductions are not guaranteed.

Because emission reductions cannot be quantified, the remaining control technologies cannot be ranked.

3.1.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

The General Electric OpFlex has no adverse environmental impacts. Rapid Response technologies may have adverse energy impacts—there is some indication of a small but important energy penalty during routine operations. The software (for GE OpFlex) and hardware (for Rapid Response) differences require additional initial capital cost. Because the potential emission reductions cannot be quantified, cost effectiveness cannot be calculated.

Utilizing best operating practices to minimize emissions during startups and shutdowns has no adverse environmental or energy impacts, nor does it require additional capital expenditure.

The approach of reducing startup/shutdown duration has no adverse environmental or energy impacts, but the equipment differences require additional initial capital cost. Because the potential emission reductions cannot be quantified, cost effectiveness cannot be calculated.

3.1.5 Step 5 - Determine BACT/Present Conclusions

BACT for NOx during startups/shutdowns is the use of operating systems/practices that reduce the duration of startups and shutdowns to the greatest extent feasible, and the use of operational techniques to initiate ammonia injection as soon as possible during a startup. Because the duration of each startup event is strongly determined by a number of environmental factors (e.g., ambient temperature and the length of time the unit has been shut down prior to the restart), and because of the lack of operating experience with systems like Rapid Response, and the lack of guaranteed emission reductions during startups associated with OpFlex, the emission reductions associated with these technologies during startups are impossible to quantify; and an individual startup may take as long as a traditional startup. Therefore, BACT is determined to be the application of operating systems/practices that minimize startup and shutdown durations, in combination with the use of operational techniques to initiate ammonia injection as soon as possible during a startup.

3.2 CO Emissions

3.2.1 Step 1 – Identify All Possible Control Technologies

The control technologies under consideration are ranked as follows:

- Oxidation catalyst unit capable of achieving 2 ppmvd @ 15% O_2;
- Fast-start technologies (i.e., Rapid Response); and
- Operating practices to minimize the duration of startup and shutdown.

3.2.2 Step 2 – Eliminate Technologically Infeasible Options

The analysis for CO is identical to the analysis for NOx.

3.2.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The analysis for CO is identical to the analysis for NOx.

3.2.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

The analysis for CO is identical to the analysis for NOx.

3.2.5 Step 5 - Determine BACT/Present Conclusions

BACT for CO during startups/shutdowns is the use of operating systems/practices that reduce the duration of startups and shutdowns to the greatest extent feasible. Because the duration of each startup event is strongly determined by a number of environmental factors (e.g., ambient temperature),, and because of the lack of operating experience with systems like Rapid Response, the emission reductions are impossible to quantify; and an individual startup may take as long as a traditional startup. Therefore, BACT is determined to be the application of operating systems/practices that minimize startup and shutdown durations.

3.3 VOC Emissions

The control technologies under consideration are ranked as follows:

- Oxidation catalyst unit capable of achieving 2 ppmvd @ 15% O2
- Fast-start technologies (i.e., Rapid Response)
- Operating practices to minimize the duration of startup and shutdown

3.3.1 Step 1 – Identify All Possible Control Technologies

The analysis for VOC is identical to the analysis for NOx.

3.3.2 Step 2 – Eliminate Technologically Infeasible Options

The analysis for VOC is identical to the analysis for NOx.

3.3.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The analysis for VOC is identical to the analysis for NOx.

3.3.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

The analysis for VOC is identical to the analysis for NOx.

3.3.5 Step 5 – Determine BACT/Present Conclusions

BACT for VOC during startups/shutdowns is the use of operating systems (i.e., Rapid Response) and operating practices that reduce the duration of startups and shutdowns to the greatest extent feasible. Because the duration of each startup event is strongly determined by a number of environmental factors, and because of the lack of operating experience with systems like Rapid Response, the emission reductions are impossible to quantify; and an individual startup may take as long as a traditional startup. . Therefore, BACT is determined to be the application of operating systems/practices that minimize startup and shutdown durations.

3.4 PM/PM_{10}/$PM_{2.5}$ Emissions

Because PM and PM_{10} emissions result from the characteristics of the fuel burned and do not rely on any emissions control system, the BACT determinations for SO_2 and PM_{10} emissions during normal operations are applicable during startup and shutdown as well.

3.5 SOx Emissions

Because SO_2 emissions result from the characteristics of the fuel burned and do not rely on any emissions control system, the BACT determinations for SO_2 (and PM_{10}) emissions during normal operations are applicable during startup and shutdown as well.

4 BACT for the Auxiliary Boiler

4.1 NOx Emissions

4.1.1 Achievable Controlled Levels and Available Control Options

NOx is formed during combustion through two mechanisms: (1) thermal NOx, which is the oxidation of elemental nitrogen in combustion air; and (2) fuel NOx, which is the oxidation of fuel-bound nitrogen. Since natural gas is relatively free of fuel-bound nitrogen, the contribution of this second mechanism to the formation of NOx emissions in natural gas-fired equipment is minimal, and therefore, thermal NOx is the chief source of NOx emissions. Thermal NOx formation is a function of residence time, oxygen level, and flame temperature, and can be minimized by controlling these elements in the design of the combustion equipment.

There are two basic means of controlling NOx emissions from boilers: combustion controls and post-combustion controls. Combustion controls act to reduce the formation of NOx during the combustion process, while post-combustion controls remove NOx from the exhaust stream. Combustion control technologies for this type of boiler application include low-NOx burners, flue gas recirculation, and staged combustion. Post-combustion controls include SCR and selective non-catalytic reduction (SNCR). These are discussed below in order of most effective to least effective.

Selective Catalytic Reduction. The effectiveness of an SCR system requires the catalyst, and thus the treated exhaust stream, to be within a certain temperature range for the NOx reduction reaction to take place. The auxiliary boiler will be operated to support the turbine startup process and will be operated only up to 624 hours per year. The boiler is designed to provide 25,000 lb/hr of steam for steam turbine seals and sparging, and fuel gas heating. The majority of boiler operations are expected to be at low load, where the exhaust gas temperature is expected to be below the minimum needed for effective SCR control. While the boiler will operate at full load periodically, the length of time at which it will operate is expected to be so short that the SCR system could rarely, if ever, be used effectively. Therefore, this technology is not considered technically feasible for the auxiliary boiler in this application.

Selective Noncatalytic Reduction (SNCR). SNCR involves injection of ammonia or urea into the combustion gas stream without a catalyst. SNCR technology requires gas temperatures in the range of 1600 to 2000°F. SNCR is less effective at low levels of inlet NOx. Typical uncontrolled levels of NOx where SNCR may be used are 200-400 ppm.[9] NOx reductions using SNCR are from 30% to 50%. Controlled NOx levels using this technology may therefore be as low as 100 ppm. Lower NOx levels may be achieved if SNCR is used in conjunction with low-NOx burners. SCNR is difficult to apply to small boilers such as the proposed auxiliary boiler because of inadequate wall space for the installation of the ammonia injectors.[10]

Ultra-Low NOx Burners with Flue Gas Recirculation (FGR). Low-NOx burners with FGR are commonly used on industrial-sized package boilers such as the Project's auxiliary boiler. These burners minimize the formation of thermal NOx, while FGR reduces the oxygen in the combustion zone to further reduce NOx formation. Ultra-low NOx burners with FGR can achieve NOx emission rates of 7 to 9 ppmvd @ 3% O_2 without post-combustion controls. A 9 ppmc emission rate was recently accepted as BACT for the Colusa Generating Station auxiliary boiler, and was considered the lowest technologically feasible emission rate for that particular application. A summary of the permitted emissions limits for other, similar boilers is provided in Table 5 below.

[9] EPA Air Technology Fact Sheet (http://epa.gov/ttn/catc/dir1/fsncr.pdf, accessed 10/10/09)
[10] Ibid.

TABLE 5
Recent NOx and CO BACT Determinations for Medium-Sized Auxiliary Boilers

Facility	District/State	Heat Input Rating (MMBtu/hr HHV)	NOx Limit (ppmc)[a]	CO Limit (ppmc)	Date Permit Issued	Source
Colusa Generating Station	EPA Region 9	44	9	50	May 2008	CEC final decision
Genentech	BAAQMD	97	9	50	September 2005	CARB BACT Clearinghouse
Medimmune, Inc	Maryland	29.4	9	n/a	January 2008	RBLC # MD-0037
CPV Warren	Virginia	97	0.011 lb/MMBtu [b]	0.036 lb/MMBtu[d]	January 2008	RBLC # VA-0308
Minnesota Steel Industries	Minnesota	99	0.035 lb/MMBtu[c]	0.08 lb/MMBtu[e]	September 2007	RBLC # MN-0070
Thyssenkrupp Steel and Stainless USA, LLC	Alabama	64.9	0.035 lb/MMBtu[c]	0.040 lb/MMBtu[d]	August 2007	RBLC # AL-0230
Daimler Chrysler Corporation	Ohio	20.4	0.0350 lb/MMBtu[c]	0.0830 lb/MMBtu[e]	May 2007	RBLC # OH-0309

Notes:

a. ppmc for a boiler = ppmvd @ 3% O_2

b. Equivalent to approximately 9 ppmc NOx.

c. RBLC record shows 0.0035 lb/MMBtu, but based on rated heat input and hourly limit, this is believed to be a typographical error. This is equivalent to approximately 27 ppmc NOx.

d. Equivalent to approximately 50 ppmc CO.

e. Equivalent to approximately 100 ppmc CO.

4.1.1.1 District BACT Determinations

The SJVAPCD's BACT determination for boilers in this size range with variable loads shows that less than 15 ppmc is considered achieved in practice and 9 ppmc is considered technically feasible.

The BAAQMD has determined that 9 ppmc is achieved in practice and 7 ppmc is considered technologically feasible. However, the BAAQMD BACT guideline indicates that SCR is needed to achieve 7 ppmc, and, as discussed above, SCR is not feasible for this application.

4.1.1.2 District Prohibitory Rules

SJVAPCD Rule 4306 requires natural gas-fired boilers of this size range and limited annual fuel use to achieve a NOx limit of 30 ppmvd @ 3% O_2. Rule 4320 would be applicable to the proposed auxiliary boiler (i.e., the Authority to Construct Permit will be issued after July 1, 2009), and requires compliance with a NOx limit of 7 ppmvd @ 3% O_2.

4.1.1.3 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent limit achieved in practice, federal NSPS, or district prohibitory rule. Based upon the results of this analysis, the proposed 7 ppmc NOx limit represents BACT for this application.

4.2 CO Emissions

4.2.1 Achievable Controlled Levels and Available Control Options

CO emissions during natural gas combustion result from incomplete combustion of the fuel gas. CO emissions are minimized by combustion practices that promote high combustion temperatures, long residence times at those temperatures, and turbulent mixing of fuel and combustion air. Since those practices tend to increase NOx emissions, the effectiveness of the NOx control system may affect the ability of the boiler to achieve low CO emission rates.

4.2.1.1 District BACT Determinations

The SJVAPCD has determined that BACT for boilers in this size range is 50 ppmvd @ 3 % O_2.[11]

The BAAQMD has determined that BACT for boilers in this size range is 100 ppmvd @ 3 % O_2.[12]

4.2.1.2 District Prohibitory Rules

SJVAPCD Rule 4320 limits CO emissions from boilers to 400 ppmc.

4.2.1.3 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent limit achieved in practice, federal NSPS, or district prohibitory rule. Based upon the results of this analysis, the proposed 50 ppmc CO limit represents BACT for this application. The proposed limit is expected to be achievable through the use of good combustion practices.

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[11] SJVAPCD BACT Guideline 1.2.1

[12] BAAQMD BACT Guideline 17.2.1

4.3 VOC Emissions

4.3.1 Achievable Controlled Levels and Available Control Options

VOC emissions during natural gas combustion result from incomplete combustion of the fuel gas. VOC emissions are minimized by combustion practices that promote high combustion temperatures, long residence times at those temperatures, and turbulent mixing of fuel and combustion air. Since those practices tend to increase NOx emissions, the effectiveness of the NOx control system may affect the ability of the boiler to achieve low VOC emission rates.

4.3.1.1 District BACT Determinations

The SJVAPCD's BACT determination for boilers in this size range with variable loads shows that the use of natural gas fuel is considered to be BACT for VOCs.

The BAAQMD has determined that BACT for boilers in this size range is the use of good combustion practices for VOC control.

4.3.1.2 District Prohibitory Rules

SJVAPCD Rule 4320 does not contain a VOC limit.

4.3.1.3 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent limit achieved in practice, federal NSPS, or district prohibitory rule. Based upon the results of this analysis, the proposed 10 ppm VOC limit represents BACT for this application. The proposed limit is expected to be achievable through the use of good combustion practices.

4.4 SO_2 and PM_{10} Emissions

4.4.1 Achievable Controlled Levels and Available Control Options

SO_2 and PM_{10} emissions from natural gas combustion result from sulfur and other impurities in the fuel. Emissions of these pollutants will be minimized through the use of low-sulfur pipeline-quality natural gas. There are no add-on control technologies that are effective in reducing SO_2 and PM_{10} emissions from naturally low-emitting natural gas-fired boilers.

4.4.1.1 District BACT Determinations

The SJVAPCD and BAAQMD BACT guidelines both indicate that the use of natural gas fuel is considered BACT for boilers.

4.4.1.2 Determine BACT/Present Conclusions

Use of pipeline quality natural gas is considered BACT for this boiler application. The proposed project emissions limitations are expected to be achievable with natural gas firing.

5 BACT for Cooling System

5.1 Step 1 – Identify All Possible Control Technologies

Potential control technologies were identified by searching the following sources for determinations pertaining to cooling systems:

- SCAQMD BACT Guidelines;
- SJVAPCD BACT Clearinghouse;
- BAAQMD BACT Guidelines;
- USEPA RACT/BACT/LAER Clearinghouse;
- Other districts' and states' BACT Guidelines; and
- BACT/LAER requirements in New Source Review permits issued by the District or other agencies.

BACT determinations from the SCAQMD, SJVAPCD, BAAQMD, and USEPA are summarized in Table 6.

TABLE 6
Summary of PM_{10} BACT Clearinghouse Guidelines

Permitting Agency	Guideline	Operation	PM_{10} BACT for Cooling Towers
SCAQMD	None	N/A	N/A
SJVAPCD	8.3.10	Induced Draft Evaporative Cooling Tower	Cellular Type Drift Eliminator
BAAQMD	None	N/A	N/A
USEPA	Numerous	Cooling Towers for Combined-Cycle and Cogeneration Power Plants	Drift Eliminators 0.0005% Drift Rate

Recent BACT determinations approved by the California Energy Commission (CEC) through the Application for Certification (AFC) process are summarized in Table 6. These determinations were made by the indicated permitting authority.

TABLE 7
PM_{10} BACT Determinations for Cooling Towers in CEC Proceedings
(CEC Approval Dates in 2008 and 2009)

Permitting Agency	Project	PM_{10} BACT for Cooling Towers
BAAQMD	Russell City	Drift rate of 0.0005% (FDOC amended 12/12/08)
MDAQMD	Victorville 2	Drift rate of 0.0005% (FDOC 1/10/08)
Colusa County AQMD	Colusa	No BACT determination (FDOC 6/12/07)
SJVAPCD	Starwood	No BACT determination (FDOC 7/19/07)

Three possible alternate basic technologies were identified from background technical materials prepared during the rulemaking of USEPA's National Pollutant Discharge Elimination System (NPDES): Regulations Addressing Cooling Water Intake Structures for New Facilities (Federal Register 66:24, December 18, 2001). The NPDES regulation establishes national technology-based performance requirements applicable to the location, design, construction, and capacity of cooling water intake structures at new facilities using once-through cooling. During the rulemaking process, USEPA also evaluated alternatives to once-through cooling, including recirculating wet cooling systems, dry or air cooling systems, and hybrid cooling systems.

Recirculating Wet Cooling Tower with High Efficiency Drift Eliminator
In conventional closed-cycle recirculating wet cooling towers, cooling water that has been used to cool the condensers is pumped to the top of a recirculating cooling tower; as the heated water falls, it cools through an evaporative process and warm, moist air rises out of the tower, often creating a vapor plume. Approximately 80% of the heat transfer (cooling) occurs due to evaporation, and 20% of the heat transfer occurs due to convection.[13] Therefore, wet cooling towers are more effective in areas of low relative humidity.

Dry or Air Cooling Tower
Dry cooling systems (towers) use either a natural or a mechanical air draft to transfer heat from the condenser tubes to air. Their effectiveness is independent of relative humidity and purely a function of the ambient (dry-bulb) temperature. Therefore, dry cooling towers are more effective in areas of low ambient temperature.

Hybrid Cooling Tower (Plume-Abated Wet Cooling)
There are two types of hybrid wet-dry cooling towers. One type is essentially a wet cooling tower with an additional dry section installed on top which reduces visible plumes by heating the wet air from the wet section. This is done to reduce or eliminate the visible condensation plume.

Hybrid Cooling Tower (Spray-Enhanced Dry Cooling)
The second type of hybrid system is essentially a dry cooling tower that enhances heat transfer in the condenser tubes by spraying water on the outside of the tubes.

Once-through Cooling
Once-through cooling systems eliminate the cooling tower entirely by drawing cooling water from a water source (such as a river or the ocean), using the water to cool the condensers, and then discharging the heated water, usually back to the original water source.

5.2 Step 2 – Eliminate Technologically Infeasible Options

The next step in the top-down BACT procedure is to eliminate technologically infeasible options.

[13] Hensley, John C., ed. 2006. *Cooling Tower Fundamentals*. SPX Cooling Technologies, Inc. 2006.

Recirculating Wet Cooling Tower
As shown in Table 7, recirculating wet cooling towers equipped with high-efficiency (0.0005%) drift eliminators have been achieved in practice.

Dry Cooling
USEPA has adopted standards for new facilities that draw cooling water from waters of the U.S.[14] The regulation established the best technology available for minimizing adverse environmental impacts associated with the use of cooling water intake structures.

As part of the rulemaking process, USEPA considered the technical issues, cost, and environmental impacts associated with replacing once-through cooling with recirculating cooling towers and dry cooling. USEPA rejected dry cooling as the best replacement technology due to all three of these factors. For the purposes of this BACT analysis, the technical issues are evaluated in this step. The environmental impacts and cost considerations of dry cooling are evaluated in the following step.

The three main technical issues associated with dry cooling towers are increased steam turbine backpressure, increased space needs, and increased downwash effects. Dry cooling results in increased steam turbine backpressure because of its inability to condense steam at 100% capacity on very hot days. For safety reasons, steam turbines are designed so that a plant shutdown will be triggered if back pressure limits are exceeded. The thermal inefficiency of dry cooling has caused turbine back pressure limits to be exceeded at existing plants, which in turn has triggered plant shutdowns. Because the potential for increased steam turbine backpressure is most severe when the ambient temperature is highest, the resulting plant shutdowns occur when electricity demand is at its peak.

Another potential issue associated with dry cooling towers is space. Because dry cooling systems rely only on convective and radiant heat transfer, they require a significantly larger footprint compared to wet cooling towers. For existing facilities, this may constitute a practical obstacle to installation of dry cooling. For a new facility, however, the need for additional space is more a question of cost than feasibility.

A third potential issue associated with dry cooling towers is increased downwash effects. When the wind blows over large structures, a wake effect on the leeward side of the building can pull the air down toward the ground, a meteorological condition known as building wake downwash. Because structures for dry cooling are much larger than comparable wet cooling towers, the downwash effect is potentially greater. Increased downwash can result in higher ambient concentrations from nearby emissions sources.

Hybrid Cooling (Plume-Abated Wet Cooling Tower)
Hybrid wet-dry (plume abated) cooling towers employ both a wet section and dry section and reduce or eliminate the visible plumes associated with wet cooling towers. In general, a hybrid cooling tower is used only where a visible plume presents a threat to public safety by its interference with major infrastructure, such as airports or in some cases if the plume will block prominent landscape features or scenic coastal areas.

[14] 66 Federal Register 65255, December 18, 2001.

Hybrid cooling towers offer only insignificant changes in PM, PM_{10}, $PM_{2.5}$ emissions compared to wet cooling towers. After the warm, moist air passes through the drift eliminators of the wet section, it is mixed with warm dry air that passed through the dry section. This step speeds the evaporation that would normally occur after the plume was released. While most remaining liquid drift may be eliminated within the cooling tower via evaporation, the particulate nuclei are not reduced or eliminated by any physical process and are exhausted through the top of the cooling tower.

Even though this option does not decrease PM emissions from the cooling tower, it also has not been deemed technologically infeasible. Therefore, the environmental and economic impacts of this option are discussed in later top-down steps.

Hybrid Cooling Tower (Spray-Enhanced Dry Cooling)
A spray-enhanced hybrid cooling tower works essentially as a dry cooling tower that enhances heat transfer in the condenser tubes by spraying water on the outside of the tubes. The addition of the evaporating water spray can help alleviate both of the technical issues associated with dry cooling. Increased cooling decreases the likelihood of turbine backpressure events and may allow for fewer, more efficient dry cooling cells to be installed, thus shrinking the plant footprint required for the cooling tower. Therefore, this BACT option has not been deemed technologically infeasible.

Once-through Cooling
Once-through cooling involves the water withdrawn from rivers, streams, lakes, reservoirs, estuaries, oceans, or other waters. In general, once-through cooling is only technologically feasible when a large surface water body exists in immediate proximity to the power plant. Since this situation does not exist for the Project, once-through cooling has been deemed a technologically infeasible BACT option and will not be further evaluated.

5.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

In terms of PM/PM_{10} emissions, the candidate technologies are ranked as follows:

- Dry cooling (no direct PM/PM_{10} emissions)
- Hybrid Cooling Tower (Spray-Enhanced Dry Cooling)
- Hybrid Cooling Tower (Plume-abated Wet Cooling Tower)
- Recirculating Wet Cooling Tower

5.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

The applicant has proposed to use the highest ranked technically-feasible control alternative, which results in no direct PM/PM_{10} emissions. Dry cooling was selected in order to minimize water usage for the project.

No further analysis is required under the top-down BACT analysis procedure. It should be acknowledged that dry cooling requires electric power to run the fans; hence, more fuel

needs to be combusted to generate the same net energy from the plant, leading to higher emissions from the electric grid.

5.5 Step 5 – Select BACT/Present Conclusions

In terms of PM/PM_{10} emissions, dry cooling is selected as BACT because it has no direct PM/PM_{10} emissions.

6 BACT for the Diesel-Fueled Emergency Standby Fire Water Pump Engine

As summarized in the following sections, the BACT analyses include the following for a Diesel fire water pump engine, with a maximum work output of 288 bhp:

- Compliance with Tier 3 Certification requirements (4.0 g/bhp) constitutes BACT for a Diesel fire water pump engine. At a combined NOx + VOC emission factor of 2.75 g/bhp-hr, the proposed fire water pump engine will comply with the NOx BACT guideline.

6.1 Published BACT Guidelines

Table 8 summarizes published BACT determinations from the SJVAPCD, BAAQMD, and the SCAQMD for Diesel fire water pump engines. The SJVAPCD's BACT guidelines identify a NOx limit of 6.9 g/bhp-hr as achieved in practice. The BAAQMD BACT Guidelines do not contain determinations for Diesel fire water pump engines. A BAAQMD guideline for compression ignition (i.e., Diesel) ICEs rated at more than 50 bhp defines BACT as currently applicable EPA Tier standards; however, direct-drive fire water pump engines are explicitly excluded. The SCAQMD BACT guidelines for fire water pump engines list four BACT determinations. The BACT determinations for these sources specify a BACT emission factor of 6.9 g/bhp, or use of cooling water and fuel injection timing retard as BACT technology.

TABLE 8
BACT Guidelines For Emergency Fire Water Pump Engine (288 Hp)

Agency	Pollutant	BACT For Diesel Engines Driving Fire Pumps
SJVAPCD	NOx	6.9 g/bhp-hr or less (SJVAPCD BACT Guideline 3.1.4)
BAAQMD	NOx	No published guideline for fire pumps
SCAQMD	NOx	6.9 g/bhp-hr or use of cooling water and timing retard

6.2 Federal NSPS

40 CFR 60, Subpart IIII specifies emission limits for stationary compression ignition ICEs. Table 4 of Subpart IIII specifies that the current NOx emission standard is 4.0 g/bhp-hr for fire water pump engines between 300 and 600 HP. This emission level is equivalent to Tier 3 Certification levels contained in 40 CFR Part 89. This standard applies to manufacturers of

fire water pump engines; therefore any new fire water pump engine must meet this limit before it can be sold.

6.3 District Prohibitory Rules

Published prohibitory rules from the SJVAPCD, BAAQMD, SCAQMD, SMAQMD, and SDAPCD were reviewed to identify the NOx standards that govern existing Diesel fire water pump engines. Each district has adopted a prohibitory rule for ICEs. SDAPCD Rule 69.4.1 (Stationary Reciprocating ICEs – Best Available Retrofit Control Technology) specifies CO and NOx limits of 4,500 ppmvd @ 3% O_2 and 6.9 g/bhp-hr for emergency Diesel fire pumps. SCAQMD Rule 1470 requires use of a Tier 3 Certified engine for new direct drive fire pumps. Every other listed District exempts emergency fire pumps from the emission limits of its Internal Combustion Engine (ICE) prohibitory rules.

6.4 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent BACT determination, federal NSPS, or district prohibitory rule. The standard contained in SCAQMD Rule 1470 constitutes the most stringent emission limits for NOx. Based upon the results of this analysis, the use of a fire water pump engine certified to Tier 3 emissions standards was determined to constitute BACT for Diesel fire pumps.

7 BACT for the Emergency Standby Natural Gas-Fired Generator Engine

7.1 Step 1 – Identify All Possible Control Technologies

The possible control technologies include two approaches to combustion air/fuel ratio and two main add-on control systems. The two combustion air/fuel ratio approaches are called lean burn and rich burn, as defined below.

- Lean burn: A quotient greater than 1.1, obtained by dividing the manufacturer's recommended operating air/fuel ratio by the stoichiometric air/fuel ratio, both at full load, or, lacking such information, exhaust oxygen content greater than 2 percent.
- Rich burn: A quotient less than or equal to 1.1, obtained by dividing the manufacturer's recommended operating air/fuel ratio by the stoichiometric air/fuel ratio, both at full load, or, lacking such information, an exhaust oxygen content less than or equal to 2 percent.

The two main add-on control systems are use of 1) an oxidation catalyst and SCR on a lean-burn engine, and 2) use of non-selective catalytic reduction (NSCR) on a rich-burn engine.

7.2 Step 2 – Eliminate Technologically Infeasible Options

Both approaches to the engine combustion air/fuel ratio are technologically feasible, as are also the use of an oxidation catalyst achieving 90% control of CO and VOC on a lean-burn

engine or NSCR achieving 90% control of NOx on a rich-burn (achieving 80% control of CO and 50% control of VOC) engine.[15]

7.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

Based on SJVAPCD BACT Guideline 3.1.8, the use of an oxidation catalyst on a lean-burn engine and NSCR on a rich-burn engine are considered equivalent BACT emission levels, where a rich-burn engine would be "alternate basic equipment" to the lean-burn engine proposed by the Project.

7.4 Step 4 – Evaluate the Most Effective Control Technology Considering Environmental, Energy, and Cost Impacts

Table 9 summarizes published BACT determinations from the SJVAPCD, BAAQMD, and SCAQMD for emergency standby natural gas-fired generator engines.

TABLE 9
BACT Guidelines for Emergency Natural Gas-Fired Engine

Agency	Pollutant	BACT for Natural Gas-Fired Engines
SJVAPCD	NOx	1.0 g/bhp-hr (lean-burn) (SJVAPCD BACT Guideline 3.1.8)
BAAQMD	NOx	1.0 g/bhp (lean-burn) (BAAQMD BACT Guideline 96.3.4)
SCAQMD	NOx	1.5 g/bhp-hr (BACT Determination 360419 for 1,334 bhp Cummins 800GTA500G3)
SJVAPCD	CO	2.75 g/bhp-hr (lean-burn) (SJVAPCD BACT Guideline 3.1.8)
BAAQMD	CO	2.75 g/bhp (lean-burn) (BAAQMD BACT Guideline 96.3.4)
SCAQMD	CO	2.0 g/bhp-hr (BACT Determination 360419 for 1,334 bhp Cummins 800GTA500G3)
SJVAPCD	VOC	1.0 g/bhp-hr (lean-burn) (SJVAPCD BACT Guideline 3.1.8)
BAAQMD	POC	1.0 g/bhp (lean-burn) (BAAQMD BACT Guideline 96.3.4)
SCAQMD	VOC	1.5 g/bhp-hr (BACT Determination 360419 for 1,334 bhp Cummins 800GTA500G3)

The appropriate Federal New Source Performance Standard is 40 CFR 60 Subpart JJJJ, which established emission limits for stationary spark-ignition ICEs, but does not list quantitative (e.g., g/bhp-hr) limits for emergency engines rated equal or larger than 130 bhp.

[15] SJVAPCD. *Best Available Control Technology (BACT) Guideline 3.1.8*, April 4, 2002, http://www.valleyair.org/busind/pto/bact/bactchidx.htm.

7.5 Determine BACT/Present Conclusions

BACT must be at least as stringent as the most stringent BACT determination, federal NSPS, or district prohibitory rule. The SJVAPCD's BACT determinations constitute the most stringent emission limit for NOx and VOC, while the SCAQMD BACT determination constitutes the most stringent emission limit for CO. Based upon the results of this analysis, the emission limits summarized in Table 2 were determined to constitute BACT for the emergency standby generator engine. The Caterpillar G3512LE lean-burn engine equipped with the Miratech oxidation catalyst/SCR process would exceed BACT.

Attachment 1

Alternatives Analysis Section (Section 5.0) of the Application for Certification

capital as well as operation and maintenance (O&M) costs, which would translate into a bus bar cost represented in cents per kilowatt-hour.

This methodology was applied to a number of base load and load-following technologies as described in the following sections.

5.6.2 ALTERNATIVE NATURAL GAS-FIRED TECHNOLOGIES

Selection of the power generation technology focused on those technologies that can utilize natural gas. These technologies include conventional boiler-steam turbine units, combustion turbines in various configurations, and fuel cells.

5.6.2.1 Combined-Cycle (Selected) Generating Technology

This technology integrates combustion turbines and steam turbines in a combined cycle to achieve higher efficiencies compared to simple-cycle technologies. The combustion turbine drives a generator and the exhaust gases from the combustion turbine are used to produce steam that drives an additional generator, instead of being released to the atmosphere as they would under a single-cycle configuration. The resulting efficiency of the system is 50 to 54 percent, considerably above most other alternatives. This efficiency results in relatively low air emissions per kilowatt-hour generated. In addition, natural gas fuel emits little sulfur dioxide and little particulate matter. For these reasons, the system is considered the benchmark against which all other base load technologies are compared. Combined-cycle technology is commercially available and can be implemented. Because of its high efficiency and relatively low cost of generation, this technology is cost effective. This technology is the one selected for the Project, as well as most other new base load and load-following units being developed in the United States.

5.6.2.2 Conventional Boiler Steam Turbine

In conventional boiler steam turbine technology, fuel is burned in a furnace/boiler to create steam, which is passed through a steam turbine that drives a generator. The steam is condensed and returned to the boiler. This is an aging technology that is able to achieve a maximum thermal efficiency on the order of 35 to 40 percent. Applying the review methodology, the technology is commercially available and can be implemented. However, due to its relatively low efficiency, it tends to emit a greater quantity of emissions per kilowatt-hour generated

compared to more efficient technologies. Furthermore, its cost of generation is higher than the selected combined-cycle technology. This technology therefore does not satisfy Step 3 and was eliminated from further consideration.

5.6.2.3 Supercritical Boiler-Steam/Turbine

This technology is basically the same as the conventional boiler-steam/turbine except it utilizes considerably higher pressures. Plants using this type of technology are more expensive to construct per unit of power generated compared to conventional boiler-steam/turbine plants. Higher construction costs are generally offset by increased efficiency, so cost of power produced is about the same as a conventional boiler steam turbine plant. Applying the review methodology, the technology is definitely commercially available and could probably be implemented. However, because it is not as efficient as the combined-cycle technology, it would emit a greater quantity of emissions per kilowatt-hour compared to the Project. Based on the lower efficiency compared to the selected combined-cycle technology, this technology does not satisfy Step 3 and was eliminated from consideration.

5.6.2.4 Simple Cycle Combustion Turbine

This technology uses a combustion turbine to drive a generator. Air is compressed in the compressor section of the combustion turbine, and then passed into the combustion section where fuel is added and ignited. The resulting hot combustion gases pass through a turbine, which drives a generator. The combustion turbines have a relatively low capital cost and have efficiencies approaching 40 percent in the larger units. Because they are fast-starting and have a relatively low capital cost, they are used primarily for meeting high peak demand and have relatively low efficiency compared to combined-cycle technology. Applying the review methodology, this technology is commercially available and could be implemented. However, due to its lower efficiency compared to the selected combined-cycle technology, this technology would result in more air emissions per kilowatt-hour generated. Also, the incremental cost of generation, if it were base-loaded, would be relatively high. The technology, therefore, does not satisfy Step 3 and was eliminated from consideration.

5.6.2.5 Kalina Combined Cycle

This technology is similar to the conventional combined cycle except water in the heat recovery boiler is replaced with a mixture of water and ammonia. Overall efficiency is expected to be increased 10 to 15 percent. However, this technology is still in the testing phase. Applying the review methodology, the technology fails to pass Step 1, since it is not commercially available. It was therefore eliminated from consideration.

5.6.3 FUEL ALTERNATIVES

Technologies based on fuels other than natural gas, such as fuel cells, coal and oil, nuclear, solar and water, are described in the following sections.

5.6.3.1 Fuel Cells

This technology uses an electrochemical process to combine hydrogen and oxygen in order to liberate electrons, thereby providing a flow of current. Types of fuel cells include phosphoric acid, molten carbonate, solid oxide, alkaline and proton exchange membrane. With the exception of the phosphoric acid fuel cell and possibly the molten carbonate fuel cell, none of these technologies is commercially available on the scale of a commercial power plant. Therefore, they fail Step 1. The phosphoric acid fuel cell has operated in smaller size units, and the molten carbonate fuel cell has completed testing. At this time, however, neither of these technologies is cost competitive with conventional combined-cycle technology. Therefore, fuel cells fail Step 3 of the review methodology.

5.6.3.2 Coal

The technologies that use coal for fuel include: conventional furnace/boiler steam turbine generator; fluidized bed steam turbine generator; integrated gasification combined-cycle; direct-fired combustion turbine; indirect-fired combustion turbine; and magnetohydrodynamics.

Conventional Furnace/Boiler Steam Turbine Generator

Using this technology, coal is burned in the furnace/boiler, creating steam that is passed through a steam turbine connected to a generator. The steam is condensed in a condenser, passed through a cooling tower and returned to the boiler. Designs include stoker, pulverized coal and cyclone. The efficiency of this technology is equivalent to a conventional gas fired steam

turbine generator unit (35 to 40 percent) and, because of the usually lower price of coal compared to natural gas, the technology can be cost competitive under most conditions. However, the air emissions are greater per kilowatt-hour generated compared to conventional combined-cycle technology because of its lower efficiency, resulting in more fuel consumed per kilowatt-hour. Applying the review methodology, the technology is commercially available (Step 1). The technology should be implementable, except for a possible adverse public perception that large coal-fired units have unacceptably high levels of air emissions (untrue with modern units). In addition, coal would have to be imported from outside California (resulting in increased truck and/or train traffic), and the time to construct a facility would probably be about twice that for a conventional combined-cycle unit. The technology may therefore not pass Step 2. In addition, the generation cost of the technology could be greater than for a combined cycle (Step 3). Due to the potential problems under Step 2 and the potentially higher cost in Step 3, the technology was eliminated from consideration.

Atmospheric and Pressurized Fluidized Bed Combustion

Both of these technologies burn coal in a hot bed of inert material containing limestone that is kept suspended or fluidized by a stream of hot air from below. Water coils within the furnace create steam that drives a steam turbine generator. Efficiencies of atmospheric fluidized bed combustion (AFBC) units are on the order of 35 to 40 percent; pressurized (pressurized fluidized bed combustion [PFBC]) units are between 40 and 45 percent. The technology is commercially available for the AFBC technology, at least up to the 160-MW size. The PFBC technology is not commercially available. Applying the review methodology, the AFBC may pass Step 1, but the PFBC is eliminated from consideration. Implementation of the AFBC technology in California is possible, particularly for cogeneration applications (several units have been constructed in recent years). Coal would have to be imported from outside California, increasing train and/or truck traffic. The technology should pass Step 2, although possibly not for the 600-MW size that the applicant has planned. The generation cost of the technology, however, could be greater than for a combined cycle (Step 3). Due to the lack of a commercially proven unit in the 600-MW range, and the potentially higher cost, the AFBC technology was eliminated from consideration.

Integrated Gasification Combined-Cycle

Integrated gasification combined-cycle (IGCC) technology gasifies coal to produce a medium Btu gas that is used as fuel in a combustion turbine, which exhausts to an HRSG that supplies steam to a steam turbine/generator. The coal gasifier is located at the same site as the combustion turbine, HRSG and steam turbine generator. It is sized to supply the combustion

turbine and is integrated with it and the rest of the equipment to provide an integrated generating system. While a 100-MW unit has been fully tested in California, the technology is probably not fully commercially available. Applying the review methodology, the IGCC will not pass Step 1. Implementation of the IGCC technology in California is possible, except that coal would have to be imported from outside California (resulting in increased truck and/or train traffic). The generation cost of the technology could be competitive with a conventional gas-fired combined cycle (Step 3), but this is a relatively unknown factor. Due largely to the probable lack of full commercial availability, particularly in the 600-MW range, IGCC technology was eliminated from consideration.

Direct- and Indirect-Fired Combustion Turbines

Direct-fired units burn finely powdered coal directly in the combustion chamber of the combustion turbine. Indirect-fired units burn the coal in a fluidized bed or other combustor. Both use a heat exchanger to transfer the heat from the combustion gases to air, which is then expanded through the turbine. Neither of these units is commercially available. Therefore, they both fail to pass Step 1 of the selection methodology and were eliminated from consideration.

Magnetohydrodynamics

High temperature (3,000ºF) combustion gas is ionized and passed through a magnetic field to directly produce electricity. This technology is not commercially available. Therefore, it fails to pass Step 1 of the review methodology and was eliminated from consideration.

5.6.3.3 Nuclear Reactions

Nuclear technology includes nuclear fission and nuclear fusion. Nuclear fission breaks atomic nuclei apart, giving off large quantities of energy. For nuclear fission, pressurized water reactors (PWRs) and boiling water reactors (BWRs) are commercially available. California law prohibits new nuclear plants until the scientific and engineering feasibility of disposal of high-level radioactive waste has been demonstrated. To date, the Nuclear Regulatory Commission has been unable to make the findings of disposal feasibility required by law for this alternative to be viable in California. Nuclear fission would also require very large quantities of fresh water for cooling, a resource that is not readily available. The technology therefore is not implementable and fails to pass Step 2 of the review methodology. It was therefore eliminated from consideration.

Nuclear fusion forces atomic nuclei together at extremely high temperatures and pressures, giving off large quantities of energy. Nuclear fusion is not available commercially, and it is not clear if or when it will become available. The technology, therefore, fails to pass Step 1 of the review methodology and was eliminated from consideration.

5.6.3.4 Water

These technologies use water as "fuel." They include hydroelectric, geothermal and ocean energy conversion.

Hydroelectric

This technology uses falling water to turn turbines that are connected to generators. A flowing river or, more likely, a dammed river, is required to obtain the falling water. This technology is commercially available. However, most of the sites for hydroelectric facilities have already been developed in California, and any remaining potential sites face formidable environmental licensing problems. There are no large bodies of water near the Avenal Energy Project Site that can be used for hydroelectric power. Therefore, it would fail to pass Step 2 of the review methodology. It was therefore eliminated from consideration.

Geothermal

These technologies use steam or high-temperature-water (HTW) obtained from naturally occurring geothermal reservoirs to drive steam turbine/generators. There are vapor dominated resources (dry, superheated steam) and liquid-dominated resources that use a number of techniques to extract energy from the HTW. Geothermal energy electric power generation utilizes commercially available technology. However, geothermal resources are limited, and most, if not all, current resources have been discovered and developed in California. Geothermal development is not viable at the Project location. It was, therefore, eliminated from consideration.

Ocean Energy Conversion

A number of technologies use ocean energy to generate electricity. These include: tidal energy conversion, which uses the changes in tide level to drive a water turbine/generator; wave energy conversion, which uses wave motion to drive a turbine/generator; and ocean thermal energy conversion, which employs the difference in water temperature at different depths to drive an ammonia cycle turbine/generator. While all of these technologies have been made to work at a

research scale, they are not commercially available. Even if they were commercially available, they are considerably more costly than conventional combined-cycle technology and so would fail Step 3 of the review methodology. They were therefore eliminated from consideration.

5.6.3.5 Biomass

Major biomass fuels include forestry and mill wastes, agricultural field crop and food processing wastes, and construction and urban wood wastes. Several techniques are used to convert these fuels to electricity, including direct combustion, gasification and anaerobic fermentation. While these technologies are available commercially on a limited basis, their cost tends to be high relative to a conventional combined-cycle unit burning natural gas. This technology, therefore, does not pass Step 3 of the review methodology and was eliminated from consideration.

5.6.3.6 Solar Radiation

Solar radiation (sunlight) can be collected directly to generate electricity with solar thermal and solar photovoltaic technologies, or indirectly through wind generation technology in which the solar energy causes thermal and pressure difference in the atmosphere, creating wind. Wind generation and two types of solar generation, thermal conversion and photovoltaics, were considered as alternative technologies to the combined cycle. These are described in the following subsections.

Solar Thermal

Most of these technologies collect solar radiation, then heat water to create steam to power a steam turbine generator. The primary systems that have been used in the United States capture and concentrate the solar radiation with a receiver. The three main receiver types are mirrors located around a central receiver (power tower), parabolic dishes and parabolic troughs. Another technology collects the solar radiation in a salt pond and then uses the heat collected to generate steam and drive a steam turbine generator. While one of these technologies might be considered to be marginally commercial (parabolic trough), the others are still in the experimental stage. All require considerable land for the collection receivers and are best located in areas of high solar incidence. In addition, power is only generated while the sun shines, so the units do not supply power when clouds obscure the sun or between early evening and late morning. Gas-fired backup generation for the evening hours is necessary to support continuous power output and to provide steam to support solar operations. The Avenal area does not have sufficient year

round sunshine to be favorable for commercial solar power generation. The land use impact of the large area required for collection receivers would also be significant. Considering these factors, this technology may not be implementable. Hence, solar thermal was eliminated from consideration.

Solar Photovoltaic

This technology uses photovoltaic "cells" to convert solar radiation directly to direct current electricity, which is then converted to alternating current. Panels of these cells can be located wherever sunlight is available. This technology is commercially available, since panels of cells can theoretically be connected to achieve any desired capacity. The cost is higher than the selected combined-cycle technology. This technology fails Step 3, cost-effectiveness, and was therefore eliminated from consideration.

Wind Generation

This technology uses a wind-driven rotor (propeller) to turn a generator and generate electricity. Only limited sites in California have an adequate wind resource to allow for the installation of wind generators, and most of these sites have already been developed or are remote from electric load centers and have limited or no transmission access. Even in prime locations the wind does not blow continuously, so capacity from this technology is not always available. In California, the average wind generation capacity factor has been 25 to 30 percent. In addition, depending on the site and/or season, the technology cannot be depended upon to be available at system peak load since the peak may occur when the wind is not blowing. The technology is commercially available. Land consumption and effects on visual resources and avian species are a concern that may inhibit implementability. The cost of generation is above the cost of the selected combined-cycle technology. Due to the lack of availability of good sites, limited dependability, and relatively high cost, this technology was eliminated from consideration.

5.6.3.7 Conclusion

Using the selection methodology identified in Section 5.6.1, alternative fuels were eliminated from consideration. The availability of natural gas, the environmental and operational advantages of natural gas fuel technology, and the proven performance and commercial benefits of natural gas make this the selected choice for the Project.

EXHIBIT 6

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC, **Plaintiff,** **v.** **U.S. ENVIRONMENTAL PROTECTION AGENCY, *et al.*,** **Defendants.**	**Case No. 10-cv-00383 (RJL)** **(Hon. Richard J. Leon)**

PLAINTIFF AVENAL POWER CENTER, LLC'S
MOTION FOR JUDGMENT ON THE PLEADINGS PURSUANT TO RULE 12(c)
AND REQUEST FOR EXPEDITED DECISION

Pursuant to Federal Rule of Civil Procedure 12(c), Plaintiff Avenal Power Center, LLC ("Avenal" or the "Company"), by and through its attorneys, files this Motion for Judgment on the Pleadings and Request for Expedited Decision and states:

The Complaint Avenal filed against the U.S. Environmental Protection Agency ("EPA" or "the Agency") and Lisa P. Jackson, Administrator of the U.S. Environmental Protection Agency (the "Administrator") (collectively, "Defendants" or "EPA"), prevails as a matter of law because (1) Defendants violated a statutory deadline imposed by Congress in the Clean Air Act ("CAA" or "the Act"), and (2) Defendants' violation of that deadline was unreasonable.

Avenal filed a CAA permit application that EPA found to be complete as of March 19, 2008. Therefore, under Section 165(c) of the Act, EPA was required to take final action on Plaintiff's permit application within one year—by no later than March 19, 2009. *See* 42 U.S.C. § 7475(c) (2006). Defendants have failed to perform this statutory duty and continue, for unlawful reasons, to delay a final decision granting Plaintiff's permit. Further, Defendants have offered no cognizable defense for EPA's statutory violations and failures.

Avenal adopts and incorporates the accompanying Memorandum as though fully set forth herein. The Memorandum shows that Plaintiff has met all the applicable requirements for obtaining the permit it seeks. The Memorandum also shows that Defendants violated the CAA and ignored the intent of Congress when they failed to meet the Act's deadline for issuing such a permit and that their failure is unreasonable and unsupported by the facts and the law. And, despite Avenal's ongoing good faith efforts to work with EPA to secure a permit, EPA continues unreasonably and unlawfully to delay a final decision granting the permit.

Rather than offering any defense for its violations and failures, EPA answered Plaintiff's Complaint by arguing that "any remedy awarded to Plaintiff" must provide time for EPA to take two additional actions. (Answer, Defenses ¶¶ 1-2.) First, the Agency asserts that "any remedy awarded to Plaintiff" "must provide a reasonable time for EPA to ensure compliance with section 7 of the Endangered Species Act." (Answer, Defenses ¶ 1.) As discussed in the Memorandum, Plaintiff disagrees that the Endangered Species Act ("ESA") was a valid basis for delaying a decision on the permit, but this issue is now moot because the Fish and Wildlife Service of the U.S. Department of the Interior recently issued a formal "biological opinion" that concludes the consultation process under Section 7 of the ESA.

Second, EPA argues that "any remedy awarded to Plaintiff" "must also provide EPA with reasonable time to follow appropriate procedures to determine . . . whether Plaintiff has demonstrated that it will not cause or contribute to air pollution in excess of the recently-promulgated 1-hour national ambient air quality standard for nitrogen dioxide, effective April 12, 2010." (Answer, Defenses ¶ 2.) This standard, however, was not even proposed, much less finalized, until ***after*** the date by which EPA was statutorily required to make a final decision on Avenal's permit. (Moreover, as explained in the attached Memorandum, Avenal was not informed

that it would be required to meet this standard until more than a month after it filed its Complaint.) Under any logical extension of this defense, the permitting process could go on in perpetuity—in direct violation of Congress's intent under the CAA—while EPA continues to delay permit decisions in order to develop and "follow appropriate procedures" to determine whether a permit applicant has satisfied every new permitting requirement that the Agency decides to impose.

It is clear from the pleadings that this issue—whether EPA can lawfully withhold a permit in order to retroactively impose a new standard—is the sole remaining issue in this case. Defendants do not and cannot point to any statute, regulation, or court decision to support their position on this issue. And Defendants make no attempt to square this position with Section 165(c) of the CAA, which requires EPA to make a final decision on the permit within a year of receiving a complete permit application. 42 U.S.C. § 7475(c). Moreover, the Agency's own rules provide a procedure for obtaining a "completeness determination" for a permit application and make it clear that subsequent events do not make an already completed application incomplete. *See* 40 C.F.R. § 124.3(c) (2010). Thus, Defendants have not offered a defense for their statutory violation, and Avenal is entitled to judgment as a matter of law.

EPA's attempt to impose new standards retroactively has left Avenal in an untenable position. Because of new permitting requirements that EPA has issued in the last few months, and others that the Agency has proposed or announced but not yet issued, Avenal is now facing the prospect of a never-ending permitting process. *See, e.g.*, 75 Fed. Reg. 2938 (Jan. 19, 2010) (proposed new standard for ozone); 75 Fed. Reg. 6474 (Feb. 9, 2010) (final rule establishing new standard for NO2); 75 Fed. Reg. 6827 (Feb. 11, 2010) (proposal to apply new PM modeling requirements to pending permit applications); 75 Fed. Reg. 17004 (Apr. 2, 2010) (final rule imposing new permitting requirements for greenhouse gases, including for permit applications

pending as of January 2, 2011); 75 Fed. Reg. 35520 (Jun. 2, 2010) (final rule establishing new standard for SO2).

The prospect of a perpetual permitting process is not just a theoretical concern. EPA has already finalized new permitting requirements for greenhouse gases ("GHGs") that, by their own terms, will apply to Avenal unless EPA chooses (or is ordered by this Court) to issue the Avenal permit within the next four months. *See* 75 Fed. Reg. 31514 (Jun. 3, 2010). Under EPA's new GHG rule, regardless of when a permit application was submitted, if the Agency refuses to grant the permit by the end of this year, then the permit applicant must go back and develop a new permit application that includes an extensive analysis of GHGs (without any guidance, at least to date, on how such an analysis should be performed or evaluated). *Id.* That analysis, and presumably anything else that EPA decides to require in the new application, would then have to go through another notice-and-comment process before EPA will even consider issuing a final permit. As the record in this case shows, this process (multiple rounds of public comment followed by the many months that EPA takes to review such comments) can go on for years. Then, if at any time during this process EPA decides to impose any new permitting standard or requirement, the permit applicant is sent back to starting line—all without any regard to the statutory deadline that Congress imposed on EPA for issuing permits.

Plaintiff understands that this Court has a very full docket and extensive obligations over the next six months, but Avenal respectfully requests that the Court decide this dispositive motion on an expedited basis and order EPA to grant the Avenal permit before the end of this year. Although the background in this case may appear somewhat complex, the legal issues presented to this Court are very straightforward. If this Court does not order EPA to grant the permit by year end, then Avenal will face a new set of legal and procedural issues and additional years of delay.

WHEREFORE, Avenal respectfully moves this Court for an Order Granting its Motion for Judgment on the Pleadings and requiring that Defendants perform their mandatory duty to take final agency action to issue Avenal's permit by December 31, 2010, and for an award of attorney's fees and costs and such further relief this Court deems appropriate.

Date: August 25, 2010

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 25th day of August 2010, a true and complete copy of the foregoing Plaintiff Avenal Power Center, LLC's Motion for Judgment on the Pleadings Pursuant to Rule 12(c) and Request for Expedited Decision, Memorandum in Support thereof, Statement of Material Facts, and proposed Order was served by the Court's electronic filing system on the following registered participants:

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC, **Plaintiff,** **v.** **U.S. ENVIRONMENTAL PROTECTION AGENCY, *et al.*,** **Defendants.**	**Case No. 10-cv-00383 (RJL)** **(Hon. Richard J. Leon)**

MEMORANDUM IN SUPPORT OF
PLAINTIFF AVENAL POWER CENTER, LLC'S
MOTION FOR JUDGMENT ON THE PLEADINGS PURSUANT TO RULE 12(c)
AND REQUEST FOR EXPEDITED DECISION

Pursuant to Federal Rule of Civil Procedure 12(c), Plaintiff Avenal Power Center, LLC ("Avenal" or the "Company"), by and through its attorneys, submits this Memorandum in Support of its Motion for Judgment on the Pleadings and Request for Expedited Decision and states:

I. INTRODUCTION

The Complaint Avenal filed against the U.S. Environmental Protection Agency ("EPA" or "the Agency") and Lisa P. Jackson, Administrator of the U.S. Environmental Protection Agency (the "Administrator") (collectively, "Defendants" or "EPA"), prevails as a matter of law. Plaintiff prevails because Defendants failed to meet their statutory duties and deadlines, and because those failures, as well as Defendants' continuing failure, are unreasonable and factually and legally unjustified.

Avenal filed a Clean Air Act permit application that EPA found to be complete as of March 19, 2008. Thus, according to Section 165(c) of the Clean Air Act ("CAA" or "the Act"), EPA was required to take final action on Avenal's permit application within one year—by no later than March 19, 2009. *See* 42 U.S.C. § 7475(c) (2006). Defendants, however, have failed to perform this

mandatory duty and continue unreasonably to delay a final decision to grant Plaintiff's permit. Defendants have offered no adequate defenses for EPA's statutory violations and failures. Accordingly, Avenal is entitled to judgment as a matter of law.

II. MATERIAL FACTS NOT IN DISPUTE

A. Procedural Background

Avenal is the developer of the proposed Avenal Energy Project ("AEP" or the "Project"), a 600-megawatt natural gas-fired power plant. (Compl. ¶¶ 2, 10.) The Project is a major stationary source that Avenal has proposed to construct in an area designated as attaining the National Ambient Air Quality Standards. (Compl. ¶ 18; Answer ¶ 18.) The plant would be located six miles northeast of the City of Avenal in Kings County, California. (Compl. Ex. A; Answer ¶ 21.)

Avenal first contacted EPA in August 2007 in regard to the application process for securing the necessary CAA permit, known as a Prevention of Significant Deterioration ("PSD") permit. (Compl. ¶¶ 2, 19; Answer ¶¶ 2, 19.) Avenal submitted its initial PSD permit application for construction and operation of the Project to EPA in February 2008. (Compl. ¶¶ 5, 20; Compl. Ex. A; Answer ¶¶ 5, 20, 21.) On March 19, 2008, the EPA notified Avenal, by letter, that its PSD permit application was complete. (Compl. ¶¶ 5, 21; Answer ¶¶ 5, 21.) A true and correct copy of that letter was attached to the Complaint and also hereto as Exhibit A. (*Id*.) EPA failed to issue a final decision on Avenal's PSD application by March 19, 2009. (Compl. ¶ 22; Answer ¶ 22.)

Following EPA's failure to timely grant or deny Avenal's PSD permit application,[1] EPA published a draft permit and its Statement of Basis and Ambient Air Quality Impact Report on June 16, 2009, in which EPA stated that Avenal met all Clean Air Act standards.[2] It was not until this point that EPA began the public comment period for the Project, which it also unilaterally extended for an additional three months—from a July 16, 2009 close to an October 15, 2009 close. Then, between September and October 2009, EPA went on to schedule a public information meeting, a public hearing, and a supplemental public hearing regarding the Project.[3]

Despite the close of EPA's extended public comment period almost a year ago,[4] EPA still has not taken final action on Avenal's PSD permit application. (Compl. ¶ 22; Answer ¶ 22.) Therefore, on December 21, 2009, Avenal provided the EPA with notice of its intent to file the present action. (Compl. ¶ 25; Answer ¶ 25.) A true and correct copy of that letter was attached to the Complaint and also hereto as Exhibit B. (*Id*.)

[1] Avenal's efforts to secure a PSD permit have been documented on the U.S. government website Regulations.gov. EPA makes PSD permitted documents available to the general public on Regulations.gov, which lists: (1) regulations, proposed and final rules; (2) application, petition or adjudication documents; and (3) public comments for numerous federal agencies, including EPA. *See* EPA's public docket of Avenal's PSD application [hereinafter EPA's Avenal Docket], *available at* http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2009-0438 (last visited August 25, 2010). The Regulations.gov website includes "Docket Folders," which contain relevant permit applications documents, public notices, and relevant correspondence between EPA and a party. An index of the Avenal PSD permit documents listed on EPA's website are attached hereto as Exhibit C—please note that the documents are listed by post date and do not necessarily appear chronologically. Matters of public record are properly the subject of judicial notice, and this Court may therefore consider them on review of a motion for judgment on the pleadings. *See DiLorenzo v. Norton*, 2009 U.S. Dist. LEXIS 66862, at *9 n.7 (D.D.C. 2009); *Marshall County Health Care Auth. v. Shalala*, 988 F. 2d 1221, 1226 n.6 (D.C. Cir. 1993); *Phillips v. Bureau of Prisons*, 591 F.2d 966, 969 (D.C. Cir. 1979).

[2] *See* EPA's Avenal Docket, EPA Region 9's Statement of Basis and Ambient Air Quality Impact Report, Doc. #EPA-R09-OAR-2009-0438-0004, p. 9 (June 2009) [hereinafter June 2009 Statement of Basis], attached hereto as Exhibit D.

[3] S*ee* EPA's Avenal Docket, Public Notices Regarding the Avenal Energy Project, Doc. #EPA-R09-OAR-2009-0438-0002 (June 16, 2009), Doc. #EPA-R09-OAR-2009-0438-0005 (August 28, 2009), Doc. #EPA-R09-OAR-2009-0438-0016 (September 11, 2009), attached hereto collectively as Exhibit E.

[4] *Id*.

B. The Clean Air Act

According to the Defendants, each statutory provision cited by Avenal in its Complaint "speaks for itself and is the best evidence of its content." (Answer ¶¶ 6, 13-17, 23, 24.) Plaintiffs agree that these provisions are clear and do speak for themselves. In relevant part, they are quoted below:

- Section 165(c) of the CAA states that: "Any completed permit application under [the PSD program] for a major emitting facility in any area to which this part applies shall be granted or denied not later than one year after the date of filing of such completed application." 42 U.S.C. § 7475. (*See* Compl. ¶¶ 3, 6, 15, 17, 22, 28.)

- Section 304(a) of the Act states that: "any person may commence a civil action on his own behalf . . . against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator. . . . The district courts of the United States shall have jurisdiction to compel (consistent with paragraph (2) of this subsection) agency action unreasonably delayed." 42 U.S.C. § 7604(a). (*See* Compl. ¶¶ 1, 11, 12, 23, 30.)

- Section 304(b)(2) of the Act states that: "No action may be commenced . . . under subsection (a)(2) of this section prior to 60 days after the plaintiff has given notice of such action to the Administrator." 42 U.S.C. § 7604(b)(2). (*See* Compl. ¶¶ 24-26.)

- Section 304(d) of the Act states: "The court, in issuing any final order in any action brought pursuant to subsection (a) of this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate." 42 U.S.C. § 7604(d). (*See* Compl. ¶ 30.)

III. STANDARD FOR JUDGMENT ON THE PLEADINGS

Federal Rule of Civil Procedure 12(c) specifically provides that a party may file a motion for judgment on the pleadings "[a]fter the pleadings are closed—but early enough not to delay the trial . . ." Fed. R. Civ. P. 12(c). The moving party is not required to await discovery before filing such a motion. *See Carlson v. Reed*, 249 F.3d 876, 878 n.1 (9th Cir. 2001). "A motion for judgment on the pleadings under Rule 12(c) should be analyzed in the same manner as is a motion to dismiss under

Rule 12(b)(6). *Dale v. Exec. Office of the President*, 164 F. Supp. 2d 22, 24 (D.D.C. 2001) (quoting 2 Moore's Federal Practice 3d § 12.38, 12-101 ("In fact, any distinction between them is merely semantic because the same standard applies to motions made under either subsection."))." *Moment v. District of Columbia*, U.S. Dist. LEXIS 19458, at *7 (D.D.C. 2007).

Rule 12(d), however, states that if, on a motion for judgment on the pleadings, ". . . matters outside the pleadings are presented to and not excluded by the court, the motion must be treated as one for summary judgment under Rule 56." Fed. R. Civ. P. 12(d). "Factual allegations in briefs or memoranda of law may likewise not be considered, particularly when the facts they contain contradict those alleged in the complaint." *Egilman v. Keller & Heckman, LLP*, 401 F. Supp. 2d 105, 110 (D.D.C. 2005) (citing *Henthorn v. Dep't of Navy*, 29 F.3d 682, 688 (D.C. Cir. 1994)).

Thus, while a court may not consider matters outside the pleadings when deciding a motion for judgment on the pleadings, it may take into account "facts alleged in the complaint, any documents attached to or incorporated in the complaint, matters of which the court may take judicial notice, and matters of public record." *Robinson v. District of Columbia*, 403 F. Supp. 2d 39, 47 (D.D.C. 2005) (citing *EEOC v. St. Francis Xavier Parochial School*, 117 F.3d 621, 624 (D.C. Cir. 1997)). "As far as what constitutes a matter 'outside the pleadings,' it is well established that courts 'are allowed to take judicial notice of matters in the general public record, including records and reports of administrative bodies and records of prior litigation' without triggering the conversion requirement." *Jane Does I through III v. District of Columbia and MRDDA*, 238 F. Supp. 2d 212, 217 (D.D.C. 2002); *see also Doe v. District of Columbia*, 238 F. Supp. 2d 212, 216 (D.D.C. 2002) ("It is well established that courts are allowed to take judicial notice of matters in the general public record, including records and reports of administrative bodies and records of prior litigation").

IV. ARGUMENT

A. EPA Confirmed that Avenal Met All Clean Air Act Permit Application Requirements

In February 2008, Avenal submitted its PSD permit application to EPA.[5] Pursuant to the CAA and EPA's implementing regulations, Avenal's application was required to, and did, include the following:

- Avenal's Project Description and Engineering (Section 2.0), which included a description of the project, an overview of the Project's benefits to California, facility and transmission line details and schedule for construction, environmental design features and benefits, and a summary of applicable laws, ordinances, regulations and standards;
- AEP's impact analysis on the agriculture and soils in the vicinity of the Project (Section 6.4.2);
- AEP's impact analysis on the biological resources on and in the vicinity of the "Site and Project linear corridors" (Section 6.6.2);
- AEP's impact analysis on the industrial zoned lands of the City of Avenal (Section 6.9.3);
- AEP's impact analysis on the socioeconomic aspects of region surrounding the Project (Section 6.10);
- AEP's air quality impact analysis, air quality modeling, source impact analysis and Class I Area evaluation (Section 6.2); and
- AEP's impact analysis on the public's health, including the methodology and results of the human health risk assessment performed to assess potential impacts and public exposure associated with airborne emissions from the construction and operation of the Project." (Section 6.16).[6]

See 40 C.F.R. § 52.21(k)-(p) (2010).

[5] Avenal's February 15, 2008 cover letter to its PSD application stated: "Enclosed please find an Application for a Prevention of Significant Deterioration (PSD) Permit for the proposed Avenal Energy Project, filed by Avenal Power Center, LLC. . . . This AFC is being filed with the California Energy Commission on February 19, 2008. The portions of the AFC materials that are relevant to the PSD permitting process, as well as air quality modeling data on compact disc, are enclosed for your review." EPA's Avenal Docket, Letter from Sierra Research to EPA's Region 9, Doc. #EPA-R09-OAR-2009-0438-0003.1 (February 15, 2008), attached hereto as Exhibit F.

[6] EPA's Avenal Docket, Attachment to Avenal's February 2008 Application, Doc. #EPA-RO9-OAR-2009-0438-0003 (including hyperlinks to CEC document submissions in Avenal's PSD Application Information), attached hereto as Exhibit G.

On March 19, 2008, EPA certified the completeness of Avenal's application. *See* Exhibit A. EPA cannot process a PSD permit application "until the applicant has fully complied with the application requirements for that permit." 40 C.F.R. § 124.3(a)(2). In accordance with the requirements of the CAA and EPA's implementing regulations,[7] EPA notified Avenal that its PSD permit application was complete:

> [Avenal's] application was submitted with the letter of transmittal dated February 15, 2008 and received by this office on February 20, 2008. Additional application copies also were provided on March 3, 2008. The application is for the construction and operation of a 600 MW combined-cycle electric power generating plant and ancillary facilities. . . . After our review of the above application, as well as follow-up information submitted per our request and received on March 14, 2008 and March 17, 2008, we have determined that the PSD permit application is administratively complete as of March 19, 2008.

Exhibit A.

Thus, EPA's letter of completeness also certified that Avenal had complied with the PSD application requirements under the Clean Air Act. "If the application is incomplete, the Regional Administrator shall list the information necessary to make the application complete." 40 C.F.R. § 124.3(c). The date on which the Regional Administrator notifies the applicant that the application is complete—here, March 19, 2008—is also the application's effective date. 40 C.F.R. §124.3(f). Section 165(c) of the CAA then dictates that EPA must render a decision on the PSD application within a year from that date. *See* 42 U.S.C. § 7475(c).

During the year following EPA's determination of completeness, EPA may then seek public comments, hold public hearings, analyze reports and testing results, and request any additional or clarifying information it believes necessary to render its decision on the PSD permit application. *See*

[7] After receiving Avenal's permit application, EPA was required to review it within 30 days of receipt to determine if it was complete. *See* 40 C.F.R. § 124.3 (2010).

40 C.F.R. §§ 124.10-124.12. Once the completeness determination has been made, however, "the Regional Administrator [or delegated authority] may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material. *Requests for such information will not render an application incomplete*." 40 C.F.R. § 124.3(c) (emphasis added).

B. EPA Failed To Meet Its Statutory Obligations Under the CAA

1. EPA has ignored its statutory duties under the Clean Air Act

EPA failed to render a decision on Avenal's PSD permit application by March 19, 2009—the deadline set by Section 165(c) of the CAA—despite the fact that Avenal fulfilled all the PSD application requirements under the Act and despite the fact that EPA confirmed the completeness of the application and compliance with applicable regulations. (*See* Exhibit A; Answer ¶ 22.) According to at least one court, a "completeness" determination equates to full compliance with federal requirements, and once an application is deemed complete, a reviewing entity does not have the legal authority to compel any additions or changes to that application. *See East Bay Recycling v. Cahill*, 2005 U.S. Dist. LEXIS 11817, at *10 (S.D.N.Y. 2005) (holding that unless an entity is specifically permitted to require additional information even after an application has been deemed complete, that entity would not be entitled to obtain additional information). Thus, EPA's failure to render a timely decision should not be legally excused by its own subsequent actions or additional requests.

It was not until June 2009—after the statutory deadline for making a final permit decision had already passed—that EPA finally published a draft permit along with its June 2009 Statement of

Basis, which "describe[d] the legal and factual basis for the proposed permit per 40 C.F.R. § 124.7, including requirements under the PSD Regulation at 40 C.F.R. § 52.21."[8]

In the Executive Summary of its June 2009 Statement of Basis, EPA stated:

> The Avenal Power Center, LLC has applied for a Prevention of Significant Deterioration (PSD) permit under the federal Clean Air Act (CAA), 42 U.S.C. Section 7401 et seq., for the Avenal Energy Project, a new power plant that will generate 600 megawatts (MW, nominal) of electricity while firing natural gas. The power plant will be located in Kings County, California, within the San Joaquin Valley Air Pollution Control District. ***The proposed PSD permit is consistent with the requirements of the PSD program for the following reasons***:
>
> - The proposed permit requires the Best Available Control Technology (BACT) for Nitrogen Oxides (NO2), Carbon Monoxide (CO), Total Particulate Matter (PM) and Particulate Matter under 10 micrometers (PM10);
>
> - The ***proposed emission limits will protect the National Ambient Air Quality Standards (NAAQS) for NO2, CO, and PM10***. There is no NAAQS set for Total Particulate Matter (PM);
>
> - The ***facility will not adversely impact soils and vegetation, or air quality, visibility, and deposition in Class I areas***, which are parks or wilderness areas given special protection under the Clean Air Act.[9]

Thus, EPA had concluded, as of June of 2009, that Avenal had met all requirements for a PSD permit. Still, EPA failed to render a decision on Avenal's application. Instead, EPA continued to delay its decision by slow-walking Avenal through the review process, as shown in the public record and discussed below.

2. EPA has unreasonably delayed issuance of Avenal's PSD permit for well over a year

EPA has unreasonably and unlawfully delayed the grant of Avenal's permit. Part C of the CAA defines EPA's responsibilities for permitting new facilities, including new energy projects. *See* 42 U.S.C. § 7470. Among the purposes of Part C is to ensure economic growth as long as an

[8] June 2009 Statement of Basis 7, Section IV.A.

applicant meets the appropriate air quality standards and submits the required testing analyses and reports.[10] As stated above, according to EPA's June 2009 Statement of Basis, Avenal has done just that.

In the conclusion of its June 2009 Statement of Basis, EPA indicated that the approval of Avenal's permit was all but inevitable:

> EPA is proposing to issue a PSD permit to the Avenal Power Center, LLC for the Avenal Energy Project. ***We believe that the proposed project will comply with PSD requirements including the installation and operation of BACT, and will not cause or contribute to a violation of the NAAQS, or of any PSD increment.*** We have made this determination based on the information supplied by the applicant, our review of the analyses contained in the permit application, and other relevant information contained in the administrative record for this proposed action. (Emphasis added.)[11]

No comments were filed to dispute these findings in any material way.[12] Despite this fact, and EPA's own conclusion that that Avenal met all applicable requirements and that the Project would not cause an exceedance of any applicable National Ambient Air Quality Standards (NAAQS), including the NAAQS for nitrogen dioxide (NO2),[13] EPA continued to withhold its decision on Avenal's PSD permit.

Instead of proceeding with the public comment period after determining Avenal's application was complete in March 2008, EPA failed to request any public comments or schedule any public meetings for more than a year.[14] Despite numerous requests from Avenal, it was not until June 16, 2009—three months after the Agency was statutorily required to issue a final decision on Avenal's

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[9] *Id.* at 6 (emphasis added).
[10] *See generally Clean Air Act*, EPA, http://www.epa.gov/air/caa/ (last visited August 25, 2010).
[11] June 2009 Statement of Basis 30.
[12] *See* generally EPA's Avenal's Docket, Public Comments.
[13] June 2009 Statement of Basis 6, 30.
[14] EPA's Avenal Docket, Public Notice, Doc. # EPA-R09-OAR-2009-0438-0002 (June 16, 2009).

application—that EPA issued its first request for public comment.[15] That notice stated that "[a]ll comments on the proposed permit, and [any] request for a Public Hearing, must be received by email or postmarked by **July 16, 2009**."[16] Rather than reviewing and responding to the comments that were submitted by July 16 and then issuing a final permit, EPA instead published two additional notices for public comments on August 28, 2009, and September 11, 2009, and held three separate public meetings and hearings on September 30, 2009, October 1, 2009, and October 15, 2009.[17]

At the conclusion of this string of notices and hearings, however, EPA still failed to take action on Avenal's PSD permit. When it became clear that the Agency would not issue the permit by the end of the year, Avenal had little choice but to notify EPA of its intent to file this civil action, which it did on December 21, 2009. *See* Exhibit B.

3. EPA now seeks to use its own unlawful delay as justification for retroactively imposing new standards on Avenal

Shortly after Avenal filed its Complaint in this case, EPA informed Avenal that it was imposing a new requirement on the Project: in order to obtain the permit the Company had been seeking for more than 2 years, the Company would now be required to develop and submit a new study showing that the Project would not cause an exceedance of EPA's new 1-hour standard for NO2.[18] As part of its 2008 permit application, Avenal had submitted analysis showing that the

[15] *Id*.

[16] *Id.* (emphasis in original).

[17] *See* EPA's Avenal Docket, Public Notices Regarding the Avenal Energy Project, Doc. # EPA-R09-OAR-2009-0438-0002 (June 16, 2009), Doc. # EPA-R09-OAR-2009-0438-0005 (August 28, 2009), Doc. # EPA-R09-OAR-2009-0438-0016 (September 11, 2009).

[18] Avenal filed its Complaint on March 9, 2010. EPA did not inform Avenal that it was required to meet the new NO2 until shortly after it received an April 21, 2010 letter from Earthjustice, on behalf of a number of environmental groups opposing Avenal's permit. *See* EPA's Avenal Docket, Email to EPA, Doc. #EPA-R09-OAR-2009-0438-0045.1 (May 5, 2010); Letter to EPA, Doc. #EPA-R09-OAR-2009-0438-0046 (May 11, 2010); EPA letter to Avenal and attachment, Doc. #EPA-R09-OAR-2009-0438-0048 thru 0048.1 (June 15, 2010), attached collectively hereto as Exhibit H. EPA's Avenal Docket indicates that EPA received an April 21, 2010 letter from Earthjustice, arguing that, because the new NO2 standard had become effective on April 12, 2010, and because the Agency had not yet issued the final Avenal permit, Avenal should be required to go back and conduct an additional analysis to show that the Project would not cause the new 1-hour standard to be exceeded. It further argued that EPA would need to provide an

Project would not cause an exceedance of the EPA's longstanding annual standard for NO2, which EPA accepted and confirmed.[19] Avenal had not submitted a similar analysis for the new supplemental 1-hour standard for the simple reason that no such standard existed at the time; nor was there any indication that EPA was even considering a 1-hour standard when the application was submitted. In fact, EPA *did not even propose* its new NO2 standards until July 2009—well after the date by which the permit should have been issued.[20]

Thus, EPA was able to propose a major new standard, allow sufficient time for hearings and public comment, consider and respond to hundreds of voluminous comments dealing with scientific, technical and legal issues, and then promulgate a final standard in less time than has passed since the Agency missed its statutory deadline for issuing a PSD permit for the Avenal Project. Although EPA did publish lengthy and detailed Federal Register notices proposing and then finalizing the new 1-hour NO2 standard, there was nothing in these notices to suggest that this new standard would somehow apply retroactively to permit applications submitted years before. *See* 74 Fed. Reg. 34404 (July 15, 2009); 75 Fed. Reg. 6474 (Feb. 9, 2010). In fact, in responding to comments about the potential implications of the new standard for Clean Air Act permits, the Agency seemed to make it quite clear that the new standard would only apply to companies applying for such permits in the future:

> The EPA acknowledges that a decision to promulgate a new short-term NO2 NAAQS will clearly have implications for the air permitting process. The full extent of how a new short-term NO2 NAAQS will affect the NSR process will need to be carefully evaluated. First, major new and modified sources *applying for NSR/PSD* permits will initially be required to demonstrate that their proposed emissions

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opportunity for public comment on this additional analysis before issuing the final permit. EPA's Avenal Docket, Email Letter Transmittal from Earthjustice to EPA, Doc. #EPA-R09-OAR-2009-0438-0044 (April 21, 2010), attached hereto as Exhibit I.

[19] June 2009 Statement of Basis 6.

[20] 74 Fed. Reg. 34404 (July 15, 2009).

> increases of NOX will not cause or contribute to a violation of either the annual or 1-hour NO2 NAAQS.

75 Fed. Reg. at 6525 (emphasis added). It thus appeared that, consistent with EPA's past practice, the new standard would only be relevant to facilities "applying for" Clean Air Act permits in the future, not to companies such as Avenal that had already applied for such permits in the past.

It was not until May of 2010, over a year after EPA was legally required to issue the permit and more than a month after Avenal had filed the present action, that the Agency advised the Company that EPA would not issue a final permit until Avenal submitted a new modeling analysis of the new 1-hour NO2 standard.[21] Avenal also learned at this time that, once it submitted this analysis and the Agency found it to be acceptable (apparently based on guidelines that were yet to be developed), there would need to be another round of public comments before the Agency would issue the final permit that, by law, should have been issued more than a year before. *See* Answer, Defenses ¶ 2.

Notwithstanding its frustration with this process, Avenal continued to work with EPA to supply information and analysis to show that the Project would, in fact, meet the new NO2 standard.[22] In submitting such information and analysis, however, Avenal made it very clear that it disagreed with EPA's position that the new 1-hour standard applied to any decision about the proposed permit:

> EPA is now taking the position that, before we can get our PSD permit, we must go back and do additional modeling to meet a new requirement that had not even been proposed as of the deadline date for EPA to issue the PSD permit. As you know, we believe that EPA's position on this matter is legally improper, but we nevertheless agreed to conduct the additional modeling in the hope of

[21] *See supra* Fn. 18.

[22] *See supra* Fn. 18, Exhibit H. *See also* EPA's Avenal Docket, Letters from Bracewell & Giuliani, LLP to U.S. Department of Justice and EPA, Doc. #EPA-R09-OAR-2009-0438-0053 (June 28, 2010) and Doc. #EPA-R09-OAR-2009-0438-0077, attached hereto collectively as Exhibit J. *See also* Response to Issues Raised in the EPA Region 9 Letter of June 15, 2010, Doc #EPA-R09-OAR-2009-0438-0054.

> obtaining the permit as quickly as possible and without the need for litigation. On May 13, 2010, we submitted this additional modeling analysis, which concluded that the proposed project would not cause or contribute to a violation of the new 1-hour NO2 National Ambient Air Quality Standard. . . After waiting more than a month for EPA to review this analysis, we received the June 15th letter from EPA Region 9. . .[which] simply requests additional analysis and explanation that are already in the permitting record.[23]

Although Avenal believes that EPA's continuing refusal to grant the permit is unreasonable and unlawful, Avenal has worked in good faith to develop and provide the information that EPA claims is necessary to show that the Project will not cause any exceedance of the new 1-hour standard. *Id.* EPA, however, continues to demand additional information without providing Avenal with clear guidance as to the type of analysis EPA views as acceptable.[24]

C. EPA Ignores the Clear Language of the Clean Air Act, the Clear Intent of Congress, and Court Decisions Regarding the Retroactive Application of New Requirements

EPA has not only failed to meet its statutory obligations, but has frustrated the intent and purpose of Part C of the CAA and is attempting to create a permit application process that could continue in perpetuity without resolution. Congress included Section 165(c) as part of the 1977 Amendments to the CAA to address its concern that the PSD program could fall prey to unreasonable bureaucratic delays. *See* S. Rep. No. 94-717, at 23 (1976). The purpose of this section is specifically discussed in the Senate Committee on Public Works Report regarding the 1977 Amendments, which states:

> Inherent in any review-and-permit process is the opportunity for delay. The Committee does not intend that the permit process to prevent significant deterioration should become a vehicle for inaction and delay. To the contrary, the States and Federal agencies must do all that is feasible to move quickly and responsibly on permit applications and those studies necessary to judge the

[23] Letter from Bracewell & Giuliani, LLP to U.S. Department of Justice and EPA, Doc. # EPA-R09-OAR-2009-0438-0053 (June 28, 2010).

[24] EPA's Avenal Docket, Letter from EPA to Avenal, Doc. #EPA-R09-OAR-2009-0438-0078 (August 12, 2010), attached hereto as Exhibit K.

> impact of an application. *Nothing could be more detrimental to the intent of this section and the integrity of this Act than to have the process encumbered by bureaucratic delay.*

Id. (emphasis added).

The plain language of Section 165(c) confirms Congress's expressed intent that PSD permitting procedures should *not* delay construction projects. If Congress had intended to allow EPA to bog down and delay the permit process by retroactively applying new requirements, then it would not have explicitly set an end date for EPA's permit decision—one year after the receipt of a complete application. *See* 42 U.S.C. § 7475(c). EPA's disregard of its statutory mandate to take final agency action and grant Avenal's PSD permit application is exactly the type of inaction and delay Congress sought to prevent.

EPA's Answer, and indeed the history of this case, would essentially read Section 165(c) completely out of the CAA. In the Agency's view, it can apparently avoid its statutory obligation forever as long as it continues to develop new permitting rules. This is clearly not what Congress intended. Nothing in Part C of the CAA contemplates the imposition of perpetual, additional permitting requirements. *See generally* 42 U.S.C. §§ 7470-7492.

EPA actions in this case also fly in the face of numerous court decisions disfavoring the retroactive application of new requirements. "Those regulated by an administrative agency are entitled to know the rules by which the game will be played." *Alaska Prof'l Hunters Ass'n, Inc. v. FAA*, 177 F.3d 1030, 1035 (D.C. Cir. 1999). "[O]ngoing proceedings should not be interrupted when proposed regulations become final. A contrary rule would create havoc in EPA's permit development procedures." *Alabama v. EPA*, 557 F.2d. 1101, 1110 (5th Cir. 1977). Thus, EPA's attempt to hold up Avenal's permit so that it may apply new laws and policies retroactively is inconsistent with a jurisprudential presumption against such retroactive rulemaking. As the Supreme

Court has stated: "'Retroactivity is not favored in the law,' and its interpretive corollary that 'congressional enactments and administrative rules will not be construed to have retroactive effect unless their language requires this result.'" *Landgraf v. USI Film Prods.*, 511 U.S. 244, 264 (1994).

Any energy project depends on the rule of law to provide clear standards and some degree of certainty so that engineers can design a proposed project and assess its impacts, project developers can gauge the likelihood of a return on investment in the project, and lenders can weigh the risk of lending money to finance the project. "Excessive delay saps the public confidence in an agency's ability to discharge its responsibilities and creates uncertainty for the parties, who must incorporate the potential effect of possible agency decision-making into future plans." *Cutler v. Hayes*, 818 F.2d 879, 896 (D.C. Cir. 1987) (internal citations omitted). "Moreover, unjustifiable delay may undermine the statutory scheme and could inflict harm on individuals in need of final action." *Id.* Thus, rewarding EPA's violations and failures with an opportunity to laden Avenal's permit with additional requirements—established more than year after the permit should have been issued—sends the wrong message to the Agency, to the applicant, and to countless other developers, investors, and workers.

D. EPA's Defenses For Its Failures Are Legally Insufficient

EPA's Answer offered no cognizable defense for its statutory failures and delays. And, while Avenal acknowledges that EPA's responsibilities are numerous and time-consuming, Avenal has, in good faith, attempted to work with EPA over the last two and a half years to secure a decision on its PSD permit—to no avail.

1. EPA's defenses do not meet the legal standards

Federal Rule of Civil Procedure 8(c) specifically provides that "a party must affirmatively state any avoidance or affirmative defense" when responding to a pleading. EPA's defenses simply

reference possible remedies available to Avenal; EPA's Answer provides no factual or legal reason to defend its actions. (*See generally* Answer.) It is unclear why EPA chose to answer Avenal's Complaint without asserting defenses for its actions.

Although Rule 8(c) does not mention waiver or forfeiture as a consequence of not timely asserting an affirmative defense, the D.C. Circuit has held that "[a] party's failure to plead an affirmative defense . . . generally 'results in the waiver of that defense and its *exclusion from the case*.'" *Harris v. Sec'y of the Dep't of Veterans Affairs*, 126 F.3d 339, 343 (D.C. Cir. 1997) (quoting *Dole v. Williams Enters., Inc*., 876 F.2d 186, 189 (D.C. Cir. 1989) (emphasis in original)). The D.C. Circuit has held in no uncertain terms that "Rule 8(c) means what it says: a party must first raise its affirmative defenses in a responsive pleading before it can raise them in a dispositive motion." *Id*. at 345; *see also Smith-Haynie v. District of Columbia*, 155 F.3d 575, 578 (D.C. Cir. 1998) ("[A]n affirmative defense not raised by answer cannot be raised in dispositive motions that are filed post-answer."). Accordingly, it is also unclear what defense EPA believes it could raise in its response to this motion.

2. EPA's "defenses" support Avenal's claims

EPA does not, in essence, dispute the allegations put forth by Avenal in its Complaint because EPA's defenses are not "defenses tending to exculpate defendants from liability." *Williams Enters., Inc. v. Strait Mfg. & Welding Inc.*, 728 F. Supp. 12, 23 (D.D.C. 1990), *aff'd in part and remanded in part on other grounds sub nom. Williams Enters., Inc. v. Sherman R. Smoot Co.*, 938 F.2d 230 (D.C. Cir. 1991). In its Answer, EPA stated its defenses in this case:

> With respect to any remedy awarded to Plaintiff, such remedy must provide a reasonable time for EPA to ensure compliance with section 7 of the Endangered Species Act, 16 U.S.C. § 1536. Pursuant to section 7, EPA is currently engaged in formal consultation regarding the Avenal Energy Project with the United States Fish & Wildlife Service. (Answer, Defenses ¶ 1.)

> With respect to any remedy awarded to Plaintiff, such remedy must also provide EPA with reasonable time to follow appropriate procedures to determine, pursuant to section 165(a)(3) of the Clean Air Act, 42 U.S.C. § 7475(a)(3), whether Plaintiff has demonstrated that emissions from the Avenal Energy Project will not cause or contribute to air pollution in excess of the recently-promulgated 1-hour national ambient air quality standard for nitrogen dioxide, effective April 12, 2010. 75 Fed. Reg. 6474 (Feb. 9, 2010). (Answer, Defenses ¶ 2.)

Rather than seeking to exculpate EPA from liability, or even limit its liability, EPA's defenses in this case seek to limit the *remedy* that may be awarded to the Plaintiff. Thus, EPA offers no defense for its actions (and inaction). Furthermore, because the burden of proving an affirmative defense rests with the Defendants, Avenal's "burden is met by a sufficient 'showing . . . that there is an absence of evidence to support the nonmoving party's case.'" *Frito-Lay, Inc. v. Willoughby*, 863 F.2d 1029, 1032 (D.C. Cir. 1988) (quoting *Celotex v. Catrett*, 477 U.S. 317, 325 (1986)).

3. The Endangered Species Act "defense" is no longer at issue

EPA's first stated "defense" is now moot. As noted above, EPA's first "defense" was that it needed more time "to ensure compliance with section 7 of the Endangered Species Act . . . [because] EPA is currently engaged in formal consultation regarding the Avenal Energy Project with the United States Fish & Wildlife Service." (Answer, Defenses ¶ 1.) On August 9, 2010, however, the U.S. Fish & Wildlife Service ("USFWS") sent a letter to EPA containing the final Biological Opinion necessary to conclude "formal consultation" on the Project under Section 7 of ESA.[25] Thus, EPA can no longer excuse its failure to make a final permit decision by pointing to the ESA process.[26]

[25] EPA's Avenal Docket, Letter from USFWS to EPA, Doc. #EPA-R09-OAR-2009-0438-0079 (August 9, 2010), attached hereto as Exhibit L.

[26] According to the August 9 Biological Opinion, the only condition sought by USFWS is an amendment to the PSD permit simply accepting the conditions included in the Biological Opinion. *Id.* at 4 (containing USFWS's Biological Opinion for the Proposed Avenal Energy Power Center). This requested "amendment" is administrative and does not excuse EPA's failure to decide Avenal's permit within the statutory deadline.

Even if the issue were not moot, it would not be an adequate defense. EPA does not have a legal obligation to withhold a PSD permit until the ESA consultation is complete—a fact that Courts have recognized in a variety of similar contexts. *See Tribal Village of Akutan v. Hodel*, 869 F.2d 1185, 1193-94 (9th Cir. 1989) (finding no ESA § 7(d) violation where the government action on leases occurred before the completion of ESA § 7 consultation because "stipulations" or "disclaimers" on future ESA compliance had been inserted into the leases); *Village of False Pass v. Clark*, 733 F.2d 605, 610-12 (9th Cir. 1984) (same); *North Slope Borough v. Andrus*, 642 F.2d 589, 611 (D.C. Cir. 1980) (same); *Conservation Law Found. v. Andrus*, 623 F.2d 712, 714-16 (1st Cir. 1979) (same). Thus, EPA cannot claim that its failure to issue the permit by March 19, 2009, was justified by the ongoing ESA process. In any event, pointing to the formal ESA consultation with USFWS is not a proper defense to the allegations set forth in Avenal's Complaint. Section 165(c) requires that EPA—not USFWS—follow the necessary procedures to render a decision on a PSD permit within a year of receiving a complete application.

Even if EPA could rely on the consultation process with USFSW as a proper defense for its delay in deciding Avenal's permit application, that argument has little traction given the time line of events in this matter. In June 2009, EPA stated that "Formal consultation with the U.S. Fish and Wildlife Service under Section 7 of the federal Endangered Species Act (ESA) concerning the Avenal Energy Project is ongoing and ***is nearing completion***."[27] Moreover, after receiving USFWS's draft biological opinion, regarding the ESA Section 7 consultation, on July 1, 2009, EPA waited almost six months to provide its final comments to USFWS.[28] As stated above, this issue is

[27] June 2009 Statement of Basis 6 (emphasis added).

[28] *See* EPA's Avenal Docket, Letter from USFWS to EPA's Region 9, at 4, Doc. # EPA-R09-OAR-2009-0438-0079.

now moot, but Avenal reiterates that EPA is not required to wait until the conclusion of the ESA consultation process before issuing a final PSD permit.

4. A desire to retroactively impose new standards is not a proper defense

EPA's only other "defense" stands in direct contradiction to Congress's intent and legal precedent. The Agency simply asserts that "any remedy awarded to Plaintiff" "must also provide EPA with reasonable time to follow appropriate procedures to determine . . . whether Plaintiff has demonstrated that it will not cause or contribute to air pollution in excess of the recently-promulgated 1-hour national ambient air quality standard for nitrogen dioxide, effective April 12, 2010." (Answer, Defenses ¶ 2.)

To put this "defense" in context, it must be noted again that: (1) EPA did not even *propose* its new 1-hour standard until more than three months after the Agency was statutorily required to make a *final* decision on Avenal's permit, s*ee* 74 Fed. Reg. 34403 (July 15, 2009); (2) EPA did inform Avenal that it was required to meet the new NO2 emission standard until more than a month after Avenal filed its Complaint.[29] Under EPA's logical extension of this defense, the permitting process could go on in perpetuity because the Agency may continue to change the rules for permits by applying new rules and standards retroactively to applications submitted years before.

The language of Section 165(c) and Congress' intent is not debatable—EPA must decide a permit application within a year of receiving a complete application. The Supreme Court's position is clear—"The largest category of cases in which we have applied the presumption against statutory retroactivity has involved new provisions affecting contractual or property rights, matters in which predictability and stability are of prime importance." *Landgraf*, 511 U.S. at 271.

[29] *See supra* Fn. 18.

Despite the clear intent of Congress and the Supreme Court, Avenal worked with EPA to show the Project would meet the newly proposed NO2 standard even though its application was deemed complete before the new standard was proposed and in spite of the fact that EPA was statutorily obligated to render a decision before the standard was finalized.[30] Avenal submitted additional studies using accepted modeling protocols available at the time of submission to show that the Project did in fact, comply with the new NO2 standards.[31] Unlike Avenal, EPA does not and cannot point to any statute, regulation, or court decision to support this "defense" and it makes no attempt to square this position with Section 165 of the CAA.

E. The Court Has Discretion to Compel EPA to Meet its Statutory Obligations.

EPA has unlawfully withheld its decision on Avenal's PSD Permit application, and this violation merits equitable relief. Section 304(a) of the Act provides that this Court has the jurisdiction to compel the Administrator to perform a non-discretionary duty that has been unreasonably delayed. *See* 42 U.S.C. § 7604(a). Respectfully, Avenal requests that this Court declare that EPA has violated the CAA by failing to take final action on Avenal's PSD permit application not later than one year after the date that Avenal filed its completed application. Avenal believes that, based on EPA's own findings, EPA should approve its application and grant Avenal a PSD permit. Thus, in addition, Avenal seeks an order from this Court compelling EPA to take final agency action and grant Avenal's PSD permit application by December 31, 2010, should the Court decide in Plaintiff's favor. Avenal believes that its request is justified based not only on the procedural facts detailed above, but also based on the law, which is, in the first instance, a relatively

[30] *See generally* EPA's Avenal Docket.

[31] EPA's Avenal Docket, Letter from Sierra Research to USEPA, Doc. #EPA-R09-OAR-2009-0438-0047 (May 17, 2010), attached hereto as Exhibit M; Letter from Bracewell & Giuliani, LLP to U.S. Department of Justice and EPA, Doc. # EPA-R09-OAR-2009-0438-0053.

simple exercise in statutory interpretation, and is, in the second instance, an inquiry into the balance of the equities in exercising the Court's inherent authority to grant the requested relief.

1. EPA has plainly violated Section 165(c) of the Clean Air Act

EPA admits that it found Avenal's PSD application complete on March 19, 2008 (Answer ¶ 5), that it failed to render a decision on Avenal's PSD permit application by March 19, 2009 (Answer ¶ 22), and that it has yet to render any decision (Answer ¶ 7). Again, Section 165(c) of the CAA states: "Any completed permit application under section 7410 of this title [the PSD permitting program] for a major emitting facility in any area to which this part applies shall be granted or denied not later than one year after the date of filing such a completed application. " 42 U.S.C. § 7475(c) (emphasis added).

The Supreme Court has made it clear that when a statute uses the word "shall," as Section 165(c) does here, Congress has imposed a mandatory duty upon the subject of the command. *See United States v. Monsanto*, 491 U.S. 600, 607 (1989) (by using "shall" in civil forfeiture statute, "Congress could not have chosen stronger words to express its intent that forfeiture be mandatory in cases where the statute applied"); *Pierce v. Underwood*, 487 U.S. 552, 569-70 (1988) (Congress' use of "shall" in housing subsidy statute constitutes "mandatory language"); *Barrentine v. Arkansas-Best Freight Sys., Inc.*, 450 U.S. 728, 739 n. 15 (1981) (same under Fair Labor Standards Act); *see also In re Barr Laboratories, Inc.*, 930 F.2d 72, 74 (D.C. Cir. 1991) (same under Food, Drug and Cosmetic Act). EPA's admission of these allegations demonstrates a clear violation of a mandatory duty under Section 165(c) to grant or deny the permit within one year of filing the completed application.

2. This Court should exercise its equitable powers to compel EPA and its Administrator to render a final decision on Avenal's application

Avenal has a remedy available under the CAA for EPA's violation of Section 165(c)—it may seek an order compelling the Administrator to perform her nondiscretionary duty decide Avenal's PSD permit application. *See* 42 U.S.C. § 7604(a) ("[D]istrict courts shall have jurisdiction . . . to order the Administrator to perform such act or duty"); *New York Public Interest Research Group, Inc. v. Whitman*, 214 F. Supp. 2d 1, 3-4, 6 (D.D.C. 2002). As discussed in Section IV.D., *supra*, EPA offers no defense for its failure to take final action to grant or deny the application. (*See* Answer, Defenses ¶¶ 1-2.)

Avenal argues that EPA's delay is egregious and, whether intended or not, has the effect of delaying the permit until such time as Avenal complies with additional, and as-yet-unwritten, new standards and requirements. Each of the parties' arguments goes not to the violation—which is not in doubt—but to the remedy to be provided by the Court. In assessing whether EPA's statutory violation necessitates the Court's exercise of its equitable powers, D.C. Circuit case law focuses on a reasonableness test, and "this court has stated generally that a reasonable time for an agency decision could encompass months, occasionally a year or two, but not several years or a decade." *Midwest Gas Users Ass'n v. FERC*, 833 F.2d 341, 359 (D.C. Cir. 1987).

Specifically, this test is outlined in the *TRAC* case and directs the Court to weigh six factors (the "*TRAC* factors"):

> (1) the time the agencies take to make decisions must be governed by a rule of reason;
>
> (2) where Congress has provided a timetable or other indication of the speed with which it expects the agency to proceed in the enabling statute, that statutory scheme may supply content for this rule of reason;

> (3) delays that might be reasonable in the sphere of economic regulation are less tolerable when human health and welfare are at risk;
>
> (4) the court should consider the effect of expediting delayed action on agency activities of a higher or competing priority;
>
> (5) the court should also take into account the nature and extent of the interests prejudiced by delay; and
>
> (6) the court need not find any impropriety lurking behind agency lassitude in order to hold that agency action is unreasonably delayed.

Sandoz, Inc. v. Leavitt, 427 F. Supp. 2d 29, 38 (D.D.C. 2006) (quoting *Telecomm. Research & Action Center v. FCC*, 750 F.2d 70, 80 (D.C. Cir. 1984) ("*TRAC*")); *see also In re United Mine Workers of Am. Int'l Union*, 190 F.3d 545, 549 (D.C. Cir. 1999). The first two *TRAC* factors have no impact where, as in the present case, a deadline is imposed by Congress—here, Section 165(c) of the CAA provides the foundation for the "rule of reason." *In re Barr*, 930 F.2d at 75; *Sandoz*, 427 F. Supp. 2d at 38.

The third *TRAC* factor weighs in favor of compelling EPA action in this case. The applicability of this factor is not readily apparent because EPA's delay does not directly risk human health and welfare, except in broad economic terms, at which point the inquiry overlaps with the fifth *TRAC* factor. *See In re Barr*, 930 F.2d at 75. Where the petitioner's main interest may be commercial, however, courts have recognized that the commercial activity may contribute to the benefit of the public welfare. *Id.* ("[Petitioner] makes money getting useful drugs into the hands of sick people."). In this case, the Court need not speculate about the value of the Project for the public welfare because the California Energy Commission ("CEC") has already found that "The Avenal

Energy Project will provide a degree of economic benefits and electricity reliability to the local area."[32] This factor therefore supports EPA's fulfilling its statutory obligation.

Weighing the fourth *TRAC* factor—agency activities of a higher or competing priority—can be difficult when an agency has failed to process applications under a congressional deadline. Here, the PSD permitting process "does not take the form of a first in, first out operation." Whether other PSD applications are "stuck in the ether," however, "constitutes a factor that this court considers in determining the reasonableness" of EPA's delay in processing or completing its review of Avenal's PSD permit application, as does "whether that delay is 'egregious.'" *Sandoz*, 427 F. Supp. 2d at 39 (citing *In re Monroe Commcn'ns Corp.*, 840 F.2d 942, 945 (D.C. Cir. 1988)). Certainly, the retroactive imposition of new emission standards on Avenal's application speaks to "unreasonableness," "egregiousness," and, arguably, whether Avenal's permit will become "stuck in the ether."

Moreover, as of the filing of this motion, EPA Region 9's website indicates that there are no other PSD permits that are the subject of public comment periods at this time.[33] As such, an order expediting Avenal's PSD permit application would not directly bottleneck other PSD permit applications because the requisite steps have already been completed and process is complete—a draft permit has been submitted to the public for comment, comments have been received, public hearings held, EPA's findings have been released, and applicant comments addressed. *See* Section IV.B, *supra*.

[32] Cal. Energy Comm'n, Final Comm'n Decision–Avenal Energy (08-AFC-01), Comm'n Adoption Order 1, CEC-800-2009-006-CMF (Dec. 2009), *available at* http://www.energy.ca.gov/2009publications/CEC-800-2009-006/CEC-800-2009-006-CMF.PDF.

[33] *See Region 9: Air Programs*, EPA, http://www.epa.gov/region9/air/permit/r9-permits-issued.html (last visited August 25, 2010).

The sixth *TRAC* factor notes that "the court need not find any impropriety lurking behind agency lassitude in order to hold that agency action is unreasonably delayed." *TRAC*, 750 F.2d at 80 (internal quotes omitted). Where impropriety lurks behind agency lassitude, "the agency will have a hard time claiming legitimacy for its priorities." *In re Barr*, 930 F.2d at 76. Although Plaintiff does not accuse EPA of any hidden impropriety in this case, it does note the Agency's stated interest in imposing new requirements on pending permit applications—something that is contrary to the statutory scheme created by Congress and is not countenanced by the Supreme Court.

V. REQUEST AND RATIONALE FOR SEEKING EXPEDITED DECISION

EPA's attempt to impose new standards retroactively has left Avenal in an untenable position. Because of new permitting requirements that EPA has issued in the last few months, and others that the Agency has proposed or announced but not yet issued, Avenal is now facing the prospect of a never-ending permitting process. *See, e.g.*, 75 Fed. Reg. 2938 (Jan. 19, 2010) (proposed new standard for ozone); 75 Fed. Reg. 6474 (final rule establishing new standard for NO2); 75 Fed. Reg. 6827 (Feb. 11, 2010) (proposal to apply new PM modeling requirements to pending permit applications); 75 Fed. Reg. 17004 (April 2, 2010) (final rule imposing new permitting requirements for greenhouse gases, including for permit applications pending as of January 2, 2011); 75 Fed. Reg. 35520 (Jun. 2, 2010) (final rule establishing new standard for SO2).

The prospect of a perpetual permitting process is not just a theoretical concern. EPA has already finalized new permitting requirements for greenhouse gases ("GHGs") that, by their own terms, will apply to Avenal unless EPA chooses (or is ordered by this Court) to issue the Avenal permit within the next four months. "We are not promulgating an exemption for PSD permit applications that are pending. . . . Any PSD permits issued on or after January 2, 2011 will need to address GHGs." 75 Fed. Reg. 17004, 17021; 75 Fed. Reg. 31514, 31527 (Jun. 3, 2010). Under

EPA's new GHGs rules, regardless of when a permit application was submitted, if the Agency refuses to grant the permit by the end of this year, then the permit applicant must go back and develop a new permit application that includes an extensive analysis of GHGs (without any guidance, at least to date, on how such an analysis should be performed or evaluated). *Id*. That analysis, and presumably anything else that EPA decides to require in the new application, must then go through another notice-and-comment process before EPA will even consider issuing a final permit. As the record in this case shows, this process (multiple rounds of public comment followed by the many months that EPA takes to review such comments) can go on for years. Then, if at any time during this process EPA decides to impose any new permitting standard or requirement, the permit applicant is sent back to starting line—all without any regard to the statutory deadline that Congress imposed on EPA for issuing permits.

Plaintiff understands that this Court has a very full docket and extensive obligations over the next six months, but Avenal respectfully requests that the Court decide this dispositive motion on an expedited basis and order EPA to grant the Avenal permit before the end of this year. Although the background in this case may appear somewhat complex, the legal issues presented to this Court are very straightforward. According to EPA, the only remaining reason for continuing to withhold its decision on the permit is that EPA wants to impose new requirements relating to NO2 that did not exist at the time the permit application was submitted and found to be complete, or even as of the date by which EPA was statutorily required to issue the permit. (*See* Answer, Defenses ¶ 2) If this Court does not address this issue and order EPA to grant the permit by year end, then Avenal will be faced with a whole new set of legal and procedural issues and additional years of delay.

VI. CONCLUSION

As discussed above, Avenal has met all the statutory requirements for obtaining the Clean Air Act permit that it has been seeking for almost three years. EPA, on the other hand, has failed to fulfill its statutory obligations and ignored the language, purpose and intent of the Act. Further, EPA has unreasonably and unlawfully delayed issuance of the final PSD permit and offers no valid defense for its failures.

This Court has the authority to impose a deadline compelling final agency action. Avenal respectfully requests that the Court issue an order preventing the Agency from retroactively imposing new emission standards in this case and requiring the Administrator to issue a decision, conclusive of all internal EPA proceedings and constituting final agency action, that grants Avenal's pending PSD permit by December 31, 2010.

For the reasons set forth above, Avenal is entitled to judgment as a matter of law and an award of attorney's fees and costs and an Order requiring that Defendants perform their mandatory duty on the requested schedule.

Date: August 25, 2010

Respectfully submitted,

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC, **Plaintiff,** **v.** **U.S. ENVIRONMENTAL PROTECTION AGENCY, *et al.*,** **Defendants.**	**Case No. 10-cv-00383 (RJL)** **(Hon. Richard J. Leon)**

STATEMENT OF MATERIAL FACTS

Plaintiff Avenal Power Center, LLC ("Avenal" or the "Company"), by and through its attorneys, submits Statement of Material Facts Not in Dispute:

1. Avenal is the developer of the Avenal Energy Project ("AEP" or the "Project"), a 600 megawatt natural gas-fired power plant. (Compl. ¶¶ 2, 10.)

2. Avenal has proposed that the Project, a major stationary source, be constructed in an area that has been designated attainment for certain National Ambient Air Quality Standards. (Compl. ¶ 18; Answer ¶ 18.)

3. Avenal first contacted the EPA in August 2007 in regards to the application process for securing a Prevention of Significant Deterioration ("PSD") permit for the Project. (Compl. ¶¶ 2, 19; Answer ¶¶ 2, 19.)

4. Avenal submitted its initial PSD permit application for the Project to the EPA in February 2008. (Compl. ¶¶ 5, 20; Answer ¶¶ 5, 20.)

5. On March 19, 2008, the EPA notified Avenal, by letter, that its PSD permit application was complete. (Compl. ¶¶ 5, 21; Answer ¶¶ 5, 21.) A true and correct copy is attached as Exhibit A. (*Id*.)

6. The EPA failed to issue a final decision on Avenal's PSD application by March 19, 2009. (Compl. ¶ 22; Answer ¶ 22.)

7. Following EPA's failure to timely grant or deny Avenal's PSD permit application, EPA published a draft permit and its Statement of Basis and Ambient Air Quality Impact Report on June 16, 2009, in which EPA stated that Avenal met all Clean Air Act standards. *See* EPA's Avenal Docket, EPA Region 9's Statement of Basis and Ambient Air Quality Impact Report, Doc. # EPA-R09-OAR-2009-0438-0004, p. 9 (June 2009); *available at* http://www.regulations.gov/search/Regs/home.html#docketDetail?R=EPA-R09-OAR-2009-0438 (last visited August 25, 2010).

8. It was not until this point that EPA began the public comment period for the Project, which it also unilaterally extended for an additional three months—from a July 16, 2009 close to an October 15, 2009 close. S*ee* EPA's Avenal Docket, Public Notice, Doc. # EPA-R09-OAR-2009-0438-0002 (June 16, 2009); Public Notice, Doc. # EPA-R09-OAR-2009-0438-0005 (August 28, 2009); Public Notice, Doc. # EPA-R09-OAR-2009-0438-0016 (September 11, 2009).

9. Then, between September and October 2009, EPA went on to schedule a public information meeting, a public hearing, and a supplemental public hearing regarding the Project. (*Id*.)

10. To date, EPA still has not taken final action on Avenal's PSD permit application. (Compl. ¶ 22; Answer ¶ 22.)

11. Therefore, on December 21, 2009, Avenal provided the EPA with notice of its intent to file the present action. (Compl. ¶ 25; Answer ¶ 25.) A true and correct copy of that letter was attached to the Complaint and also hereto as Exhibit B. (*Id*.)

Date: August 25, 2010

Respectfully submitted,

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EXHIBIT 7

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC, Plaintiff, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and LISA P. JACKSON, Administrator, United States Environmental Protection Agency, Defendants.	)	Case No.: 1:10-cv-00383-RJL

DECLARATION OF DEBORAH JORDAN

I, Deborah Jordan, under penalty of perjury, affirm and declare that the following statements are true and correct to the best of my knowledge and belief, and are based on my own personal knowledge or on information contained in the records of the United States Environmental Protection Agency ("EPA") or supplied to me by EPA employees under my supervision at EPA.

1. I am Director of the Air Division, Region 9, EPA. EPA's Region 9 Office generally has the responsibility within EPA for overseeing the implementation of the Clean Air Act ("CAA" or "the Act") in the Region 9 area. In Region 9, EPA has delegated the authority to implement procedures for preconstruction review for prevention of significant deterioration ("PSD") for new or modified major (stationary) sources under the CAA regulations in 40 C.F.R. § 52.21 to the Director of the Air Division.

2. I have been Director of the Air Division of Region 9 since March 7, 2004. Previously, I served as Associate Regional Administrator, in the role of chief of staff for former EPA Region 9 Regional Administrator Wayne Nastri. I have also served as Chief of the Federal Facilities and

Site Cleanup Branch in the Superfund Division of EPA Region 9, and as Associate Director of the Air Division for the Region.

3. As Director of the Air Division in Region 9, I oversee and have worked extensively with Region 9 staff and management in the Region 9 Air Permits Office, which is responsible for processing PSD permit applications, and the Air Quality Analysis Office, which is responsible for reviewing air modeling analyses submitted to Region 9 in conjunction with PSD permitting actions. Thus, I am knowledgeable about EPA Region 9's actions to date concerning EPA's processing of the PSD permit application for the Avenal Energy Project ("Project"). In addition, I am knowledgeable about how to establish a schedule for PSD permitting which involves reviewing air modeling analyses and undertaking associated PSD permitting actions such as preparing the necessary documentation concerning EPA's determinations concerning such an analysis, providing for public notice and comment on such an analysis, and preparing response to comments and final decision documents pertaining to such an analysis. I am familiar with the amount of staffing necessary to complete these actions, the time frames associated with this work and the total workload of the staff working on these actions, as well as that of their supervisors, managers, and senior management staff. These duties and activities have made me knowledgeable of the requisite procedures and workloads associated with the processing of PSD permit applications.

4. This declaration is filed in support of Defendants' Memorandum of Points and Authorities in Opposition to Plaintiff's Motion for Judgment on the Pleadings and In Support of Defendants' Cross-Motion for Summary Judgment in the above-captioned proceeding. It is also filed specifically to support Defendants' request for a schedule providing for the Region 9 Air Division Director to issue a final permit decision on the pending Avenal Energy Project PSD

permit application by December 31, 2010. EPA believes this schedule to be the most expeditious time frame for a final permit decision by the Region 9 Air Division Director. Any shorter time frame would seriously jeopardize the technical adequacy of the EPA's permit decision as well as the opportunities for the public to provide input on this decision, as a shorter time frame would mean that EPA would not have sufficient time to analyze the relevant technical data submitted by the applicant, prepare documentation concerning its determination on this analysis, or to follow appropriate procedures to inform the public and respond to public comment on the issues.

I. LEGAL BACKGROUND AND EPA'S ACTIONS TO DATE

5. CAA section 165(a) provides that a major emitting facility subject to the PSD permitting program may not be constructed unless the following requirements, among others, are satisfied:

> (1) a permit has been issued for such proposed facility in accordance with this part setting forth emission limitation which conform to the requirements of this part; . . .
> (3) the owner of operator of such facility demonstrates, as required pursuant to section 7410(j) of this title, that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any . . . (B) national ambient air quality standard in any air quality control region.

6. EPA regulations require that a PSD permit applicant "demonstrate that allowable emission increases from the [facility], in conjunction with all other applicable emission increases or reductions . . . , would not cause or contribute to air pollution in violation of (1) any national ambient air quality standard in any air quality control region." 40 C.F.R. § 52.21(k).

7. EPA regulations at 40 C.F.R. Part 124 set forth the procedural requirements for EPA's decision making process for the PSD program. Among other things, the regulations generally provide for public notice and comment and an opportunity for public hearing on the basis for EPA's decision prior to EPA's making a final permit decision. 40 C.F.R. §§ 124.1(c), 124.10-12. The regulations generally provide for a 30-day public comment period, and also provide that

notice is to be given at least 33 days prior to EPA's holding a public hearing or before a comment period closes when notice is given by mail. 40 C.F.R. §§ 124.10-12, 124.20(d). In addition, EPA must respond to all significant comments raised during the public comment period or during any hearing. 40 C.F.R. § 124.17(a). The EPA Regional Administrator or his or her delegate (in the case of Region 9, the Regional Air Division Director) then issues the final permit decision. 40 C.F.R. §§ 124.15, 124.17-18.

8. After EPA issued its letter notifying Avenal that its PSD permit application was complete, EPA processed the application by conducting its own internal analysis of the information provided, communicating regularly with Avenal concerning additional information EPA believed necessary in order to move forward with the issuance of a proposed permit decision, and considering additional information received from Avenal.

9. EPA conducted an extended public comment process for the proposed PSD permit for the Project, including a public information meeting and two public hearings in response to requests from stakeholders. Shortly after EPA Region 9's issuance of the initial public notice on June 16, 2009 concerning the proposed PSD permit for the Project, members of the public requested that EPA extend the public comment period, hold a public meeting and hearing on the Project, and also provide public notice in Spanish. In addition, members of the public expressed concern about conflicting public proceedings in the area, and EPA determined that holding a supplemental public hearing would be appropriate. The public information meeting and the two public hearings were held as scheduled, after which time the comment period for the proposed permit closed.

10. After the close of the public comment period, EPA commenced work on considering and drafting responses to the dozens of comments received, some of which raised many different

issues. EPA also discussed some of these issues with Avenal, and reviewed additional information relevant to the comments submitted by Avenal following the close of the comment period. Attached hereto as Exhibit 1 is a true and correct copy of a letter dated November 16, 2009 from Jeffrey R. Holmstead of Bracewell & Giuliani, LLP to EPA Region 9.

11. EPA conducted a formal Endangered Species Act ("ESA") section 7 consultation in conjunction with the permit decision making process for the Project. After receiving a biological assessment from Avenal, EPA Region 9 requested initiation of formal consultation on the Project with the U.S. Fish and Wildlife Service ("FWS"), and preparation of a biological opinion, to address potential impacts to the San Joaquin Kit Fox, on July 10, 2008. EPA also requested the FWS's written concurrence that the Project was not likely to adversely affect certain other federally listed endangered plant and wildlife species. Attached hereto as Exhibit 2 is a true and correct copy of the July 10, 2008 letter. After providing its final comments to the FWS on the FWS's draft Biological Opinion for the Project in December 2009, EPA continued to regularly contact FWS to inquire about the status of the final Biological Opinion. EPA's formal section 7 consultation with FWS concluded with EPA receiving a final Biological Opinion from FWS on August 9, 2010. Avenal submitted a letter to EPA Region 9 dated August 16, 2010 indicating its intent to commit to the terms of the Biological Opinion and requesting that the terms of its PSD permit be changed to include the Biological Opinion's requirements. A true and correct copy of this August 16, 2010 letter (without the attached Biological Opinion) is attached hereto as Exhibit 3. On September 1, 2010, EPA sent a letter to Plaintiff requesting that Plaintiff provide a letter addendum to its permit application to include a commitment to comply with the reasonable and prudent measures and terms and conditions included in the Biological Opinion, in lieu of EPA's changing the permit's requirements, consistent with the terms of the Biological

Opinion and EPA practice. A true and correct copy of this September 1, 2010 letter is attached hereto as Exhibit 4.

II. EPA'S OUTSTANDING OBLIGATIONS

12. EPA must conclude that its ESA section 7 obligations are satisfied for purposes of making a final decision on Avenal's permit application. EPA has not yet received the requested ESA-related permit application addendum letter from Avenal, but anticipates that it will receive the letter shortly. If Avenal promptly submits an adequate commitment letter, EPA will be able to conclude that its ESA section 7 obligations are satisfied for purposes of making a final decision on Avenal's permit application, consistent with ESA regulations at 50 C.F.R. § 402.15(a).

13. EPA promulgated a new 1-hour national ambient air quality standard ("NAAQS") for nitrogen dioxide ("NO2"), effective April 12, 2010. 75 Fed. Reg. 6474 (Feb. 9, 2010).

14. EPA interprets applicable statutes and regulations as precluding the Agency from issuing a PSD permit without a demonstration that the source will not cause or contribute to a violation of the hourly NO2 standard. See Memorandum from Stephen D. Page, EPA Office of Air Quality Planning and Standards, Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards (Apr. 1, 2010), a true and correct copy of which is attached here to as Exhibit 5.

15. EPA is currently evaluating, pursuant to section 165(a)(3) of the CAA, whether Plaintiff has demonstrated that emissions from the Project will not cause or contribute to air pollution in excess of the hourly NO2 NAAQS.

16. The public participation process that EPA has provided to date for the proposed Avenal PSD permit did not address the hourly NO2 NAAQS. In addition, the public

participation process did not address the hourly sulfur dioxide ("SO2") NAAQS, which became effective on August 23, 2010. EPA has informed Avenal that it believes that the Project's emissions would comply with the hourly SO2 NAAQS, and that it has determined that additional analysis is not required from Avenal to address this standard, given that the Project's SO2 emissions are estimated to be 16.7 tons per year, which is below the significant emissions rate for SO2, per 40 C.F.R. §§ 52.21(m)(1) and 52.21(b)(23)(i).

17. EPA has been working with Avenal through a number of letter exchanges and discussions to determine whether the proposed facility will comply with the hourly NO2 standard. On August 17, 2010, Avenal confirmed its intent to provide EPA with the additional information and justification EPA requested concerning its hourly NO2 NAAQS analysis by September 13, 2010 as requested by EPA. A true and correct copy of Avenal's August 17, 2010 letter is attached hereto as Exhibit 6. EPA received an additional hourly NO2 NAAQS submittal from Avenal on September 13, 2010, and is currently reviewing it. A true and correct copy of the cover letter and memorandum from that September 13, 2010 submittal (excluding the submittal's attachments) is attached hereto as Exhibit 7.

18. Consistent with EPA regulations in 40 C.F.R. Part 124, EPA has determined that an additional 33-day public comment period, which will conclude with a public hearing, concerning EPA's determination regarding whether emissions from the Project will cause or contribute to a violation of the hourly NO2 NAAQS and the hourly SO2 NAAQS is appropriate and necessary prior to Region 9's making a final decision on the PSD permit application for the Project. EPA has determined that it must also respond to all significant comments raised during the public comment period or during any hearing, thus EPA must consider and respond to all such comments prior to making its final permit decision for the Project.

III. EPA'S PROPOSED SCHEDULE FOR REGION 9 TO ISSUE A FINAL PERMIT DECISION

19. I believe that it will take Region 9 approximately 3½ months from September 13, 2010 – the date that Avenal submitted its most recent supplemental hourly NO2 NAAQS analysis – to undertake the various technical and procedural tasks needed to complete the permit decision making process for the Avenal PSD permit application, as described in more detail below.

20. EPA will review and evaluate the information and analysis submitted by Avenal on September 13, 2010, and consider whether any modifications to the permit's emissions limitations or other aspects of its permit decision documentation would be necessary in conjunction with its review of that information and analysis. EPA will then prepare a written determination concerning Avenal's air quality impacts analysis for the hourly NO2 NAAQS and any other necessary modifications to the permit's emissions limitations or other aspects of its permit decision documentation, which EPA would make available for public review and comment. EPA will concurrently prepare a public notice that will notify and seek comment from the public about EPA's determination concerning whether Avenal has demonstrated compliance with the hourly NO2 NAAQS and the hourly SO2 NAAQS and other relevant information concerning the proposed permit decision that arises in the context of EPA's review of the hourly NO2 NAAQS analysis. This notice will also propose a public hearing, which would need to be held at least thirty-three days after the date of the public notice. Having received the additional NO2 information from Avenal, EPA will also move forward with making arrangements for the public hearing, including, among other things, setting a date and location for the hearing, and arranging for a hearing officer, a court reporter, and a translator for

the public hearing. EPA believes that it will need approximately six weeks to accomplish all of these tasks described in this paragraph ¶ 20.

21. Consistent with the EPA regulatory time frames described above, the public comment/hearing period would last approximately thirty-three days from the date of the public notice announcing both the comment period and the hearing. After the close of the public comment period, EPA will use the next approximately four weeks to consider and prepare a response to comments received during the comment period and public hearing, make any necessary changes to the permit and associated documents, prepare final decision documents, and have the Regional Air Division Director issue a final permit decision per 40 C.F.R. § 124.15 no later than December 31, 2010.

22. If Avenal requests that EPA consider significant additional new information or analysis submitted much later than September 13, 2010, EPA may need additional time complete its permit decision making process for the Project, in light of the tasks above to be completed as part of that process.

SO DECLARED:

DEBORAH JORDAN

Dated: 9-17-10

EXHIBIT 8

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC Plaintiff, v. U.S. ENVIRONMENTAL PROTECTION AGENCY and LISA P. JACKSON, in her capacity as Administrator of the U.S. Environmental Protection Agency Defendants.	)	Case No.: 1:10-cv-00383-RJL (Hon. Richard J. Leon)

MEMORANDUM OF POINTS AND AUTHORITIES IN OPPOSITION TO PLAINTIFF'S MOTION FOR JUDGMENT ON THE PLEADINGS AND IN SUPPORT OF DEFENDANTS' CROSS-MOTION FOR SUMMARY JUDGMENT

Plaintiff Avenal Power Center, LLC ("Plaintiff" or "Avenal") brought this action pursuant to the citizen suit provision of the Clean Air Act ("CAA" or "Act"), 42 U.S.C. § 7604(a)(2), to compel Defendants, U.S. Environmental Protection Agency and Lisa P. Jackson, Administrator ("EPA"), to grant or deny its permit application pursuant to CAA section 165(c), 42 U.S.C. § 7475(c), which requires the Agency to do so within one year of the filing of a complete application. EPA does not dispute that it has failed to act on Plaintiff's permit application within one year of declaring the application complete. Accordingly, the only issue to be resolved in this suit is the question of remedy – *i.e.*, the appropriate deadline by which EPA must grant or deny Plaintiff's permit application. Because EPA cannot conclude review of Plaintiff's permit application on any schedule more expedited than that proposed herein, EPA requests that its motion for summary judgment on remedy be granted, and that the Court enter an

order adopting EPA's proposed deadline.

BACKGROUND

I. STATUTORY BACKGROUND

A. THE CLEAN AIR ACT

Prior to beginning construction of a facility that will emit air pollution in excess of specified levels in an area that meets ambient air quality standards established by EPA, a party must obtain a permit that contains emission limitations that will prevent significant deterioration of the air quality in the area where the facility will be located—a Prevention of Significant Deterioration permit, or "PSD permit." 42 U.S.C. §§ 7475(a)(1), 7479(1). To obtain a PSD permit, an applicant must, among other things, demonstrate that the facility "will not cause, or contribute to, air pollution in excess of any . . . national ambient air quality standard in any air quality control region." 42 U.S.C. § 7475(a)(3). Similarly, EPA regulations require that an applicant "demonstrate that allowable emission increases from the [facility], in conjunction with all other applicable emission increases or reductions . . . , would not cause or contribute to air pollution in violation of (1) any national ambient air quality standard in any air quality control region." 40 C.F.R. § 52.21(k). Under the CAA, EPA has established national ambient air quality standards ("NAAQS") that are required to "protect public health" while "allowing for an adequate margin of safety." 42 U.S.C. § 7409(b)(1). EPA must review each NAAQS every five years and revise them if necessary to meet such criteria. 42 U.S.C. §§ 7409, 7409(d)(1).

CAA section 165(c) requires that a PSD permit application "be granted or denied not later than one year after the date of filing of such completed application." 42 U.S.C. § 7475(c). EPA's procedures for reviewing permit applications are contained in 40 C.F.R. Part 124. Under

the CAA and Part 124, EPA must provide the public with an opportunity to submit written and oral comments on proposed PSD permits and denials, and provide the public with notice that "all data submitted by the applicant" is part of the administrative record, during the permit review process. *See* 42 U.S.C. § 7475(a)(2); 40 C.F.R. §§ 124.1(c), 124.10-12. CAA section 165(e) provides that EPA regulations must "require the results of [the air quality analysis] be available at the time of the public hearing on the application for [the PSD] permit." 42 U.S.C. § 7475(e)(3)(c).

The regulations generally provide for a 30-day public comment period, and also provide that notice is to be given at least 33 days prior to EPA's holding a public hearing or before a comment period closes, when notice is given by mail. *See* 40 C.F.R. §§ 124.10-12, 124.20(d). In addition, EPA must respond to all significant comments raised during the public comment period or during any hearing. 40 C.F.R. § 124.17(a). After EPA reviews and responds to public comments, the EPA Regional Administrator, or his or her delegate, for the EPA Region responsible for reviewing the permit application must take action by granting or denying the permit application. *See* 40 C.F.R. §§ 124.15, 124.17-18.

Any person who commented on the draft permit or participated in a public hearing during the permit review process may challenge the final Regional permit decision by filing a Petition for Review of the final permit decision before the EPA's Environmental Appeals Board ("EAB"). *See* 40 C.F.R. § 124.19; *see also* 40 C.F.R. § 124.2 (definition of "Environmental Appeals Board"); 57 Fed. Reg. 5320 (Feb. 13, 1992) (describing the role of the EAB). The EAB has the discretion to refer an appeal to the EPA Administrator for resolution, *see* 40 C.F.R.

§ 124.2, but Part 124 does not authorize the EPA Administrator or the Regional Office to issue a final and effective permit decision without providing an opportunity for an appeal of that permit. The issuance or denial of a PSD permit does not become a final agency action for purposes of judicial review until the exhaustion of the EPA administrative review procedures, including appeal to the EAB. *See* 40 C.F.R. § 124.19(f).

B. THE ENDANGERED SPECIES ACT

Under section 7 of the Endangered Species Act, federal agencies must "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species . . . . ." 16 U.S.C. § 1536; *see generally* 50 C.F.R. Part 402. This is done through the agency's consultation with the United States Fish & Wildlife Service ("FWS"), which is concluded by the issuance of a "biological opinion" by the FWS. *Id.* "Following the issuance of the biological opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its section 7 obligations and the Service's biological opinion." 50 C.F.R. § 402.15(a).

II. PLAINTIFF'S PERMIT APPLICATION BACKGROUND

Avenal is the developer of the proposed Avenal Energy Project ("the Project"), a 600-megawatt natural gas-fired power plant. Compl. ¶¶ 2, 10. Avenal first contacted EPA Region 9 in August 2007 regarding the application process for securing a PSD permit for the Project. Compl. ¶¶ 2, 19; Answer ¶¶ 2, 19. Avenal submitted its initial PSD permit application for the Project to EPA in February 2008. Compl. ¶¶ 5, 20; Compl. Ex. A; Answer ¶¶ 5, 20, 21. On March 19, 2008, EPA Region 9 notified Avenal, by letter, that its PSD permit application was complete as of that date. Compl. ¶¶ 5, 21; Answer ¶¶ 5, 21; Pls. Ex. A.

After EPA Region 9 issued its letter notifying Avenal that its PSD permit application was complete, EPA Region 9 processed the application by conducting its own internal analysis of the information provided, communicating regularly with Avenal concerning additional information EPA deemed necessary, and considering additional information received from Avenal. Declaration of Deborah Jordan (hereinafter "Jordan Decl.") ¶ 8. For example, on March 31, 2008, EPA requested additional information from Avenal, and on April 10, 2008, Avenal provided its response to that request. *See* Joint Stipulation of Facts ("Joint Stip."), Docket Entry 11, ¶ 6, and on June 6, 2008, EPA requested additional information regarding AEP's startup/shutdown. *Id.* On October 28, 2008, Avenal notified EPA that it had reduced its proposed carbon monoxide ("CO") limit to 2.0 ppm to address EPA concerns. *Id.* On November 17, 2008, Avenal and EPA had a permit status meeting in San Francisco. *Id.* On February 23, 2009, EPA requested an additional impacts analysis from Avenal, and on March 11, 2009, Avenal submitted the requested additional impacts analysis. *Id.*

Additionally, to ensure compliance with section 7 of the ESA and its implementing regulations, EPA Region 9 took the necessary steps to move forward with consultation regarding the Project with the FWS. Specifically, after receiving a biological assessment from Avenal, EPA Region 9 requested initiation of formal consultation with the FWS, and preparation of a biological opinion, to address potential impacts to the San Joaquin Kit Fox on July 10, 2008. Joint Stip. ¶ 6; Jordan Decl. ¶ 11 and Ex. 2 (July 10, 2009 letter requesting initiation of formal consultation). EPA also requested the FWS's written concurrence that the Project was not likely to adversely affect certain other federally listed endangered plant and wildlife species. *Id.* On September 9, 2008, the FWS requested additional information from EPA Region 9. Joint Stip. ¶

6. On October 1, 2008, Avenal submitted to EPA Region 9 information to respond to FWS's September 8, 2008 letter to EPA, and on October 22, 2008, EPA Region 9 provided additional information requested by FWS. *Id.*

EPA Region 9 issued a proposed PSD permit for the Project and its Statement of Basis and Ambient Air Quality Impact Report on June 16, 2009, and thereby initiated the public comment period for the Project's PSD permit. Pls. Ex. D and E. Shortly after EPA Region 9's issuance of the initial public notice on June 16, 2009, concerning the proposed PSD permit for the Project, members of the public requested an extension of the public comment period, a public meeting and hearing on the project, and public notice in Spanish. Jordan Decl. ¶ 9. On August 27, 2009, EPA Region 9 issued a public notice concerning the proposed PSD permit, and announced that it would hold a public information meeting on September 30, 2009, and a public hearing on October 1, 2009, and that the close of the public comment period would be extended to October 15, 2009. Pls. Ex. E. Members of the public expressed concern about conflicting public proceedings in the area, and EPA determined that a supplemental public hearing would be appropriate. Jordan Decl. ¶ 9. EPA Region 9 therefore issued an additional public notice on September 11, 2009 stating that a supplemental public hearing would be held on October 15, 2009, the date on which the public comment period was scheduled to close. Pls. Ex. E. The public information meeting and two public hearings were held as scheduled, after which the comment period for the proposed permit closed. Jordan Decl. ¶ 9.

EPA received public comments from dozens of organizations and individuals regarding various issues presented by Avenal's proposed PSD permit. Joint Stip. ¶ 10. Following the close of the comment period, EPA commenced work on considering and drafting the response to these

comments. Jordan Decl. ¶10. EPA discussed some of the issues raised in the comments with Avenal, and reviewed and considered additional relevant information to submitted by Avenal following the close of the comment period. Jordan Decl. ¶ 10 and Ex. 1 ; Pls. Ex. H (May, 11 2010 letter from Sierra Research to Gerardo Rios).

While the public review process for the proposed PSD permit was ongoing, and afterward, EPA Region 9 continued to work with FWS and Avenal on the ESA section 7 consultation for the Project. On July 1, 2009, FWS issued its draft Biological Opinion for the Project. Joint Stip. at ¶ 10. Between July 2009 and December 2009, EPA Region 9 and Avenal provided comments on the draft Biological Opinion to the FWS. *Id.* EPA continued to contact FWS regularly to inquire about the status of the final Biological Opinion, *see* Jordan Decl. ¶ 11, which was not issued by FWS until August 9, 2010. *See* Pls. Ex. L.

In the meantime, on February 9, 2010, EPA published a final rule establishing a primary NAAQS for nitrogen dioxide ("NO2") based on a 1-hour averaging time ("hourly NO2 NAAQS"). 75 Fed. Reg. 6474 (Feb. 9. 2010). The CAA requires that EPA review existing NAAQS and the underlying air quality criteria at 5-year intervals and revise the criteria and standards as appropriate. 42 U.S.C. §§ 7409, 7409(d)(1). Prior to the 2010 action, EPA had last completed such a review in 1996.[1] EPA retained the pre-existing NO2 NAAQS with an annual averaging time, but in the 2010 rule, the EPA Administrator concluded that "the current NO2

[1] EPA's February 9, 2010 rule was signed by the Administrator on January 22, 2010 to comply with a deadline established under a Consent Decree entered by this court. *Center for Biological Diversity v. Johnson*, Civ. No. 05-1814 (LFO) (D.D.C.). EPA first promulgated identical primary and secondary NAAQS for NO2 (based on an annual average) on April 30, 1971. *See* 36 Fed. Reg. 8186. EPA completed reviews of the air quality criteria and NO2 standards in 1985 and 1996 with decisions to retain the annual standard each time. *See* 50 Fed. Reg. 25,532 (June 19, 1985); 61 Fed Reg. 52,852 (Oct. 8, 1996).

primary NAAQS alone is not requisite to protect public health with an adequate margin of safety" and that "the NO2 primary standard should be revised in order to provide increased public health protection against respiratory effects associated with short-term exposures, particularly for susceptible populations such as asthmatics, children, and older adults." [2] 75 Fed. Reg. at 6490.

The new hourly NO2 NAAQS became effective on April 12, 2010. *See* 75 Fed. Reg. at 6474. Prior to this date, EPA issued a memorandum explaining that applicable statutes and regulations preclude the Agency from issuing a PSD permit without a demonstration that the source will not cause or contribute to a violation of the new hourly NO2 standard. *See* Jordan Decl., Ex. 5 (Memorandum from Stephen D. Page, EPA Office of Air Quality Planning and Standards, Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards (Apr. 1, 2010) ("Page Memorandum")). In two previous instances, EPA has established by rule exemptions for permit applications that were determined complete prior to the revision of a National Ambient Air Quality Standard for particulate matter. *See* 40 C.F.R. 52.21(i)(1)(x)-(xi).[3] However, since EPA did not promulgate such an exemption applicable to the hourly NO2 standard, existing

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[2] The CAA requires that not later than August 7, 1978, EPA "promulgate a national primary ambient air quality standard for NO2 concentrations over a period of not more than 3 hours unless … [the Administrator] finds that there is no significant evidence that such a standard for such a period is requisite to protect public health." 42 U.S.C. § 7409(c). EPA had previously addressed the issue of short-term exposures to NO2 and the appropriateness of a short term standard in both the 1985 and 1996 NAAQS reviews. *See* 50 Fed. Reg. 25,532 (June 19, 1985); 61 Fed Reg. 52,852 (Oct. 8, 1996).

[3] In response to a petition for reconsideration, EPA has recently proposed to repeal section 52.21(i)(1)(xi), in part because EPA adopted this provision without an opportunity for public comment. 75 Fed. Reg 6827, 6833 (Feb. 11, 2010). EPA previously stayed this provision until June 22, 2010. 74 Fed. Reg. 48,153 (Sept. 22, 2009).

regulations require permits issued after April 12, 2010 to be supported by a demonstration that the proposed source will not violate the hourly NO2 NAAQS. *See* Jordan Decl., Ex. 5, Page Memorandum at 3. Thus, EPA has determined, and notified Avenal on May 5, 2010, that Avenal must show compliance with the hourly NO2 standard in order to obtain a PSD permit. Jordan Decl., ¶¶ 14-15, 17; Joint Stip. at ¶ 10. As discussed more fully *infra*, EPA is currently evaluating, pursuant to section 165(a)(3) of the CAA, whether Plaintiff has demonstrated that emissions from the Project will not cause or contribute to air pollution in excess of the revised NO2 standard. Jordan Decl., ¶¶ 15, 17. Since the promulgation of the revised NO2 standard, EPA has been working with Avenal through a number of letter exchanges and discussions to determine whether the proposed facility will comply with the revised NO2 standard. *See* Pls. Exs. H, J, K, M. On August 17, 2010, Avenal confirmed its intent to provide EPA with additional information and justification concerning its hourly NO2 NAAQS analysis by September 13, 2010 as requested by EPA. Jordan Decl. Ex. 6. On September 13, 2010, EPA received Avenal's submission and is currently reviewing it. Jordan Decl. ¶ 17 and Ex. 7.

On June 22, 2010, EPA published a final rule establishing a primary NAAQS for sulfur dioxide ("SO2") based on a 1-hour averaging time. That rule became effective on August 23, 2010. 75 Fed. Reg. 35,520 (Jun. 22, 2010). EPA has already informed Avenal that it believes that the Project would be in compliance with the hourly SO2 NAAQS. EPA further informed Avenal that it has determined that additional analysis is not required from Avenal to address this standard, given that the Project's SO2 emissions are estimated to be 16.7 tons per year, which is below the significant emissions rate for SO2. *See* 40 C.F.R. §§ 52.21(m)(1) and 52.21(b)(23)(i); Jordan Decl., ¶ 16.

As discussed in the Jordan Declaration, EPA needs until December 31, 2010, to complete its review of Plaintiff's NO2 submissions, and complete the permit decision-making process.[4] Such a deadline will allow EPA Region 9 to evaluate the technical hourly NO2 NAAQS analysis provided by Plaintiff, make a determination regarding the analysis, submit its determinations on the NO2 analysis and the Project's compliance with the 1-hour SO2 NAAQS to the public for comment, consider and respond to comments, and make a well-reasoned and supported final determination on the permit application, so that EPA Region 9's final determination will withstand scrutiny if it is appealed to the Environmental Appeals Board.

III. LITIGATION BACKGROUND

Plaintiff filed the Complaint in this matter on March 9, 2010. When EPA filed its Answer on May 18, 2010, EPA was still engaged in consultation with FWS regarding the Project, and had not received the FWS's final Biological Opinion. *See* Answer, Defenses, ¶ 1. As stated above, on August 9, 2010, EPA received the Biological Opinion from the FWS, thereby completing EPA's formal consultation with the FWS under section 7 of the ESA. *See* Pls. Ex. L. ESA regulations provide that "[f]ollowing the issuance of a biological opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its section 7 obligations and the Service's biological opinion." 50 C.F.R. § 402.15(a). Avenal submitted a letter to EPA Region 9 dated August 16, 2010, indicating its intent to commit to the terms of the Biological Opinion and requesting that the terms of its PSD permit be changed to

[4] This proposed deadline is dependent on EPA Region 9's moving forward with its decision-making process based on the 1-hour NO2 NAAQS analysis submitted by Plaintiff to date, including the submittal received on September 13, 2010. If Plaintiff requests that EPA consider significant additional information or analysis submitted much later than that date, EPA may need to request an extension from the Court for issuing a final permit decision. Jordan Decl., ¶¶ 17-22.

include the Biological Opinion's requirements. Jordan Decl., Ex. 3. On September 1, 2010, EPA sent a letter to Plaintiff requesting that Plaintiff provide a letter addendum to its permit application to include a commitment to comply with the reasonable and prudent measures and terms and conditions included in the Biological Opinion, in lieu of EPA's changing the permit's requirements, consistent with the terms of the Biological Opinion[5] and EPA practice. Jordan Decl., Ex. 4. EPA has not received the requested permit application addendum letter from Avenal to date, but anticipates that it will receive this document shortly. Jordan Decl., ¶ 12. If Avenal promptly submits an adequate commitment letter, EPA will be able to conclude its ESA section 7 obligations for purpose of making a final decision on Plaintiff's permit application, consistent with 50 C.F.R. § 402.15(a). Jordan Decl., ¶ 12.

However, as explained *supra* in Part II of the Background Section, while review of Avenal's permit application remained pending, EPA promulgated an additional NAAQS for NO2, based on a 1-hour averaging time. EPA is currently evaluating, pursuant to section 165(a)(3) of the CAA, whether Plaintiff has demonstrated that emissions from the Project will not cause or contribute to air pollution in excess of the revised NO2 standard. Jordan Decl. ¶ 15. As discussed more fully *infra*, EPA will need until December 31, 2010, to follow the appropriate

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[5] The Biological Opinion's reasonable and prudent measures include, *inter alia*, the following:

> 2. Prior to PSD permit issuance, the applicant will submit a revised PSD permit application that includes the terms and conditions contained within this biological opinion. Including the terms and conditions of the biological opinion within the applicant's PSD permit application requires the applicant to adhere to those terms and conditions to remain in compliance with the PSD permit requirements.
> 3. The EPA shall forward to the Service a copy of the applicants' revised application containing the provisions of the biological opinion for the Service to review.

Pls. Ex. L at 29.

procedures to evaluate the information, provide the public with notice and an opportunity to submit written and oral comments on EPA's determination concerning Plaintiff's NO2 NAAQS data and other related matters, consider and respond to comments, and grant or deny the permit application.

Plaintiff filed a motion for judgment on the pleadings requesting injunctive and declaratory relief on August 25, 2010. For the following reasons, the Court should deny Plaintiff's requested relief, and grant Defendants' proposed remedy instead.

STANDARD OF REVIEW

Rule 56(c) of the Federal Rules of Civil Procedure provides that summary judgment "should be rendered if the pleadings, . . . and any affidavits show that there is no genuine issue as to any material fact and that the movant is entitled to a judgment as a matter of law." *See Celotex Corp. v. Catrett*, 477 U.S. 317, 323 n.4 (1986) (citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247 (1986)).

ARGUMENT

I. THIS COURT HAS EQUITABLE DISCRETION TO DETERMINE A REASONABLE SCHEDULE FOR AGENCY ACTION.

A district court has broad discretion to fashion equitable remedies. *Weinberger v. Carlos Romero-Barcelo*, 456 U.S. 305, 311-13 (1982); *American Lung Ass'n v. Browner*, 884 F. Supp. 345, 347 (D. Ariz. 1984). In a suit alleging violation of a Congressionally mandated duty, the district court exercises its discretion to fashion a remedy by considering whether "the official involved . . . has in good faith employed the utmost diligence in discharging his statutory responsibilities." *NRDC v. Train*, 510 F.2d 692, 713 (D.C. Cir. 1975). "The sound discretion of [a] . . . court does not embrace enforcement . . . of a party's duty to comply with an order that

calls [on] him to do an impossibility." *Natural Resources Defense Council v. Train*, 510 F.2d 692, 713 (D.C. Cir. 1975) ("*Train*"). Indeed, "it would be inappropriate to set an infeasible schedule in order to punish a delinquent agency." *Sierra Club v. Thomas*, 658 F. Supp. 165, 172 (N.D. Cal. 1987). Thus, a statutory deadline should not be enforced to the extent that it is impossible or infeasible to comply with such a deadline. *American Lung Association v. Browner*, 884 F. Supp at 347.

In *Train*, the leading case on the subject of an agency's failure to meet statutory deadlines, the D.C. Circuit recognized two types of circumstances that might necessarily delay agency action and make it infeasible to comply with a particular deadline: (1) budgetary and manpower constraints, and (2) the need for an agency to have more time to sufficiently evaluate complex technical issues. 510 F.2d at 712-13. With respect to the latter, "[t]he public has a significant interest in ensuring that the government does not [act] via a process that emphasizes expediency over quality and accuracy." *Cronin v. Browner*, 90 F. Supp. 2d 364, 373 (S.D.N.Y. 2000). In setting deadlines, courts have considered the agency's need for time to act in a manner that would withstand the scrutiny of subsequent challenge. *See Sierra Club v. Thomas*, 828 F.2d 783, 798-99 (D.C. Cir. 1987); *United Steelworkers of America v. Rubber Mfrs. Ass'n*, 783 F.2d 1117, 1120 (D.C. Cir. 1986) (holding judicial imposition of overly hasty timetable on agency would ill serve the public interest); *Maine Ass'n of Handicapped Persons v. Dole*, 623 F. Supp. 920, 926 (D. Me. 1985) (recognizing "the need to implement clear and effective regulations capable of withstanding the scrutiny of challenges following enactment."). In short, when an agency has missed a statutory deadline, a court should examine the relevant facts and circumstances and evaluate the time frame needed by the agency to make well-reasoned,

scientifically supportable, and defensible decisions.

II. THE REMEDY PROPOSED BY PLAINTIFF EXCEEDS THE SCOPE OF THE REMEDY AUTHORIZED BY THE CITIZEN SUIT PROVISION.

Because this is a suit against the United States, this Court has jurisdiction only to the extent that the United States has waived its sovereign immunity. The Supreme Court has repeatedly held that "[w]aivers of immunity must be construed strictly in favor of the sovereign . . . and not enlarged beyond what the language requires." *Ruckelshaus v. Sierra Club*, 463 U.S. 680, 685-86 (1983) (quoting cases). Where the United States has consented to be sued, the terms of that waiver of sovereign immunity define the extent of the court's jurisdiction." *United States v. Sherwood*, 312 U.S. 584, 586 (1941).

Under the Clean Air Act, the citizen suit provision provides a waiver of sovereign immunity for claims alleging that the agency has failed to perform a nondiscretionary duty under the Act. 42 U.S.C. § 7604(a). In fashioning a remedy to address such a failure, district courts do not have jurisdiction to review the substance of the agency's decisionmaking, or "direct the manner in which any discretion given the Administrator . . . should be exercised." *NYPIRG v. Whitman*, 214 F. Supp. 2d 1, 3 (D.D.C. 2002) (holding that the plaintiffs were not entitled to discovery since the court lacked power to grant equitable relief beyond setting a deadline for action required by the CAA provisions before the court). "Notably, the CAA does not allow district courts to address the content of EPA's conduct, issue substantive determinations on its own, or grant other forms of declaratory relief." *Sierra Club v. Browner*, 130 F. Supp. 2d 78, 90 (D.D.C. 2001). Rather, the CAA specifically limits district courts' jurisdiction to "order[ing] the Administrator to perform such act or duty." 42 U.S.C. § 7604(a).

Here, Plaintiff's request for relief goes far beyond that permitted by statute. Plaintiff

requests that the Court (1) order EPA to "[g]rant the PSD permit application for the Project . . . before December 31, 2010; (2) "[p]rohibit the Agency from retroactively imposing the new emission standards on Avenal's permit application;" and (3) order EPA to "[t]ake other appropriate actions to remedy, mitigate, and offset the harm to Plaintiff caused by [EPA's] disregard of their statutory duty. . . ." Plaintiff's Proposed Order, Docket Entry 12-1. Moreover, in its Memorandum in Support, Avenal asks this Court to order the Administrator herself to issue the permit, thus eliminating the possibility of an administrative appeal. *See* Plaintiff's Memorandum in Support at 28 (asking the Court to issue "an order preventing the Agency from retroactively imposing new emission standards in this case and requiring the Administrator to issue a decision, conclusive of all internal EPA proceedings and constituting final agency action, that grants Avenal's pending PSD permit by December 31, 2010"). By asking the Court to order the EPA *Administrator* to *grant* Plaintiff's application, Plaintiff is asking the Court to not only prescribe EPA's substantive decision on the application, but also to foreclose access by interested parties to the EAB appeal process provided by EPA's regulations. *See* 40 C.F.R. § 124.19. Additionally, by asking the Court to prohibit EPA from retroactively imposing new emission standards on Avenal's permit application, and order EPA to take action to remedy or mitigate harm to Plaintiff caused by EPA's failure to meet its statutory duty, Plaintiff is asking the Court to grant declaratory relief beyond setting a reasonable deadline for the agency to meet its duty. As the case law summarized above establishes, the Court has no jurisdiction to grant such relief.

III. EPA'S PROPOSED SCHEDULE REPRESENTS THE REASONABLE MINIMUM TIME NECESSARY FOR EPA TO COMPLETE THE REQUIRED ACTION.

As detailed in Parts II and III of the Background section *supra*, and established in the

Joint Stipulation of Facts and Jordan Declaration, EPA Region 9 has acted in good faith and with "utmost diligence" in processing Plaintiff's permit application. Specifically, EPA Region 9 requested and received additional information from Avenal after receiving the initial application and after deeming the application complete, received Avenal's biological assessment and initiated the consultation process with FWS under the ESA, facilitated communication between Avenal and FWS during the consultation process, commented on FWS's draft Biological Opinion, and contacted FWS regularly to inquire about the status of the final Biological Opinion, which was not issued by FWS until August 9, 2010. *See* Joint Stip. ¶ 6; Jordan Decl., ¶¶ 9-11. EPA also worked with Avenal through a number of letter exchanges and discussions to determine whether the Project will comply with the new hourly NO2 standard, which came into effect after EPA determined that Avenal's application was complete but before the final Biological Opinion was issued. *See* Joint Stip. ¶ 6; Jordan Decl., ¶¶ 13-17.

While Plaintiff's frustration with the requirement that it show compliance with the hourly NO2 NAAQS promulgated after EPA determined that its application was complete is understandable, EPA has a statutory obligation to review and revise the NAAQS every five years. The Agency's review of the NAAQS for NO2 was several years overdue at the time Plaintiff submitted its application in 2008. As explained more fully *infra*, EPA's interpretation of the CAA and its regulations as requiring compliance with NAAQS in effect at the time of the final permit decision is reasonable. Furthermore, while EPA regularly contacted FWS about the status of the final Biological Opinion, EPA does not control the timing of FWS's issuance of its Biological Opinions.

As discussed in the Jordan Declaration, EPA needs until December 31, 2010, to complete

its review of Plaintiff's NO2 submissions, and complete the permit decision-making process.[6] Such a deadline will allow EPA Region 9 to evaluate the technical hourly NO2 NAAQS analysis provided by Plaintiff, submit its determinations on the NO2 analysis and the Project's compliance with the hourly SO2 NAAQS to the public for comment, consider and respond to comments, and make a well-reasoned and supported final determination on the permit application, so that EPA Region 9's final determination will withstand scrutiny if it is appealed to the Environmental Appeals Board.

Specifically, Plaintiff submitted additional information concerning its compliance with the hourly NO2 standard on September 13, 2010. EPA will review and evaluate that information and analysis, and consider whether any modifications to the permit's emissions limitations or other aspects of its permit decision documentation will be necessary in conjunction with its review of that information and analysis. Jordan Decl.. ¶ 20. EPA will then prepare a written determination concerning Avenal's demonstration of compliance with the hourly NO2 NAAQS and any other necessary modifications to the permit's emissions limitations or other aspects of its permit decision documentation, which EPA would make available for public review and comment. Jordan Decl., ¶ 20.

EPA would concurrently prepare a public notice that would notify and seek comment from the public about EPA's determination whether Avenal has demonstrated compliance with the revised NO2 standard and the revised SO2 standard and other relevant information

[6] This proposed deadline is dependent on EPA Region 9's moving forward with its decision-making process based on the 1-hour NO2 NAAQS analysis submitted by Plaintiff to date, including the submittal received on September 13, 2010. If Plaintiff requests that EPA consider significant additional information or analysis submitted much later than that date, EPA may need to request additional time to reach a decision. Jordan Decl., ¶¶ 17, 22.

concerning the proposed permit decision that arises in the context of EPA's review of the 1-hour NO2 NAAQS analysis. Jordan Decl., ¶ 20. This notice will also propose a public hearing, which would need to be held at least thirty-three days after the date of the public notice. Jordan Decl., ¶ 20. Having recently received the additional hourly NO2 analysis from Avenal, EPA will also move forward with making arrangements for the public hearing, including, among other things, setting a date and location for the hearing, and arranging for a hearing officer, a court reporter, and a translator for the public hearing. Jordan Decl., ¶ 20. EPA believes that it will need approximately six weeks to accomplish all of the tasks described above and publish the notice. *Id.*

Consistent with EPA regulatory timeframes, the public hearing and comment period would last approximately thirty-three days from the date of the public notice announcing both the comment period and the hearing. After the close of the public comment period, EPA would use the next four weeks to consider and prepare a response to comments received during the comment period and public hearing, make any necessary changes to the permit and associated documents, prepare final decision documents, and issue a final decision. Jordan Decl., ¶ 21. In summary, EPA Region 9 requires a minimum of three and one-half months starting with its receipt of Avenal's September 13, 2010, hourly NO2 NAAQS analysis—assuming that analysis is not significantly supplemented after that date—to complete the permit review process, including the public participation process, and issue a final permit decision. Thus, Region 9 will be able to issue a final permit decision no earlier than December 31, 2010. Jordan Decl., ¶¶ 19-21.

Plaintiff argues that EPA cannot lawfully withhold action on the permit application in

order to "retroactively" impose the new NO2 standard, and asks this Court to prohibit EPA from applying any new standards retroactively. *See* Plaintiff's Memorandum in Support at 14-16. Although EPA disputes that this Court has jurisdiction to consider such a question or grant such relief in a deadline suit like this one, *see* discussion of Court's authority in Part II of the Argument *supra*, EPA's interpretation of the CAA requiring EPA to apply the standards in effect, including the hourly NO2 standards, at the time of its final permit decision is reasonable.

Indeed, as noted *supra*, the plain language of both the Clean Air Act and applicable regulations require a PSD permit applicant to demonstrate that its facility will not cause or contribute to a violation of "any" NAAQS. *See* 42 U.S.C. § 7475(a)(3); 40 C.F.R. § 52.21(k). Since at least 1987, EPA has consistently interpreted the plain language of the Clean Air Act to require that each final PSD permit decision reflect consideration of any NAAQS in effect at the time the permitting authority issues a final permit. *See* Jordan Decl., Ex. 5, Page Memorandum. Supreme Court precedent and other cases support EPA's interpretation that permitting and licensing decisions of regulatory agencies must reflect the law in effect at the time the agency makes a final determination on a pending application. *See Ziffrin, Inc. v. United States*, 318 U.S. 73, 78 (1943); *State of Alabama v. EPA*, 557 F.2d 1101, 1110 (5th Cir. 1977). Accordingly, EPA's determination that the NO2 standards apply to Plaintiff's permit application is reasonable under the plain language of the CAA and the corresponding regulations, and is supported by Supreme Court precedent and case law.

Plaintiff cites *Landsgraf v. USI Film Products*, 511 U.S. 244 (1994), in support of its argument that "EPA actions in this case . . . fly in the face of numerous court decisions disfavoring the retroactive application of new requirements." Plaintiff's Memorandum at 15.

Yet in *Landsgraf*, the Supreme Court stated that a retroactive requirement is one that "takes away or impairs vested rights acquired under existing laws, or creates a new obligation, imposes a new duty, or attaches a new disability in respect to transactions or considerations already past." *Landsgraf* , 511 U.S. at 269. "A statute [or rulemaking] does not operate 'retrospectively' merely because it is applied in a case arising from conduct antedating the statute's [or rule's] enactment, or upsets expectations based in prior law." *Id.* (citations omitted).

Here, Plaintiff has not established that it acquired any rights by virtue of the submission of its permit application or the determination by EPA that its application was complete. In fact, nothing in CAA section 165, or elsewhere in the Act, establishes that Plaintiff is entitled to a decision on its permit application on the basis of the laws and regulations in effect at the time that permit application was submitted or deemed complete, or indeed that Plaintiff is necessarily entitled to have EPA grant, rather than deny, its application. *See generally* 42 U.S.C. § 7475. EPA did not promulgate any regulation exempting applications complete prior to April 12, 2010, from having to address the hourly NO2 NAAQS. Thus, Plaintiff has no basis for such an expectation, let alone a vested right to the permit's issuance without demonstrating compliance with the 1-hour NO2 NAAQS promulgated during EPA's review of the permit application.

EPA's proposed schedule represents the reasonable minimum time necessary for EPA to complete review of Plaintiff's hourly NO2 NAAQS submissions, which EPA reasonably interprets the CAA to require, and proceed through the public notice and comment procedures to grant or deny Plaintiff's permit application. Thus, because Plaintiff has requested relief that exceeds the scope of remedy authorized by the citizen suit provision, and EPA's proposed remedy is reasonable and serves the public interest, EPA respectfully requests that the Court

grant the Regional Air Division Director until December 31, 2010, to grant or deny Plaintiff's permit application

CONCLUSION

For the foregoing reasons, the Court should deny the relief requested by Plaintiff and instead grant EPA's motion on remedy.

Dated: September 17, 2010

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing DEFENDANTS' MEMORANDUM OF POINTS AND AUTHORITIES IN OPPOSITION TO PLAINTIFF'S MOTION FOR JUDGMENT ON THE PLEADINGS AND IN SUPPORT OF DEFENDANTS' CROSS-MOTION FOR SUMMARY JUDGMENT with the clerk of the court for the United States District Court for the District of Columbia using the electronic case filing system of the court. The electronic case filing system sent a "Notice of Electronic Filing" to the following attorneys of record:

LaShon K. Kell

Jeffrey R. Holmstead

BRACEWELL & GIULIANI LLP

2000 K Street, NW, Suite 500

Washington, DC 20006

/s/ *Stephanie J. Talbert*
STEPHANIE J. TALBERT

EXHIBIT 9

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC Plaintiff, v. U.S. ENVIRONMENTAL PROTECTION AGENCY and LISA P. JACKSON, in her capacity as Administrator of the U.S. Environmental Protection Agency Defendants.	)	Case No.: 1:10-cv-00383-RJL (Hon. Richard J. Leon)

DECLARATION OF REGINA MCCARTHY

I, Regina McCarthy, declare under penalty of perjury under the laws of the United States of America that the following is true and correct to the best of my knowledge, information and belief, and is based on my own personal knowledge or on information contained in the records of the United States Environmental Protection Agency (EPA) or supplied to me by EPA employees.

1. I am the Assistant Administrator of the Office of Air and Radiation in EPA, a position I have held since June 2009. The Office of Air and Radiation (OAR) is the EPA office that develops national programs, technical policies, and regulations for controlling air pollution. OAR's assignments include the protection of public health and welfare, pollution prevention and energy efficiency, air quality, industrial air pollution, pollution from vehicles and engines, acid rain, stratospheric ozone depletion, and climate change.

2. OAR is responsible for development of National Ambient Air Quality Standards and the development and implementation of regulations, policy, and guidance associated with the Prevention of Significant Deterioration (PSD) permitting program.

3. Prior to joining EPA, I served as the Commissioner of the Connecticut Department of Environmental Protection. I have worked at both the state and local levels on critical environmental issues, and helped coordinate policies on economic growth, energy, transportation and the environment. I have a B.A. in Social Anthropology from the University of Massachusetts at Boston and a joint M.S. in Environmental Health Engineering and Planning and Policy from Tufts University.

4. On February 9, 2010, EPA issued a National Ambient Air Quality Standard (NAAQS) for hourly concentrations of nitrogen oxides ("hourly NO2 standard").

5. In a prior declaration, I testified that applicants seeking PSD permits to construct stationary sources of air pollution have experienced unforeseen challenges with the preparation and review of information to predict the impact of proposed sources on hourly NO2 concentrations. This gave rise to an EPA policy review that has now proceeded to the point that the agency can more specifically explain how it intends to move forward with action on the PSD permit application submitted by Avenal Power Center ("Avenal"). See paragraphs 5-8, Declaration of Regina McCarthy (January 7, 2011).

6. As part of this policy review, EPA has determined that it is appropriate, under certain narrow circumstances, to grandfather certain PSD applications from the requirement to demonstrate that the proposed facility will not cause or contribute to a violation of the hourly NO2 standard. In addition, EPA believes the factors that justify such an approach for the hourly NO2 standard also provide a basis not to subject these same permit applications to additional permitting requirements that have taken effect during the period of time these permit applications have been pending and permit applicants have been seeking to compile the additional information necessary to demonstrate that the source will not cause or contribute to a violation of the hourly NO2 standard. The PSD permit application submitted by Avenal in 2008 is among those PSD permit applications that EPA believes it is appropriate to grandfather from these additional requirements, particularly in light of EPA's statutory obligation to grant or deny a complete PSD permit application within one year and other circumstances present in this case. EPA will propose to extend similar relief to other permit applicants that can show they are similarly situated. This determination represents a change in the position EPA has taken in this matter and in previous interpretive statements issued by EPA, including statements cited by EPA to support its Cross Motion for Summary Judgment in this litigation.

7. Because this change in position requires that EPA modify or narrow previous interpretations of EPA regulations and the position EPA has taken in public statements to this court regarding this permit, the Agency reads applicable regulations and case law to require that the EPA provide the public with an opportunity to comment on this proposed action before the Agency can issue a final decision on the pending permit application that exempts Avenal from these additional requirements.

8. EPA intends to issue a supplemental public notice that will request comment on EPA's proposal to approve Avenal's application without requiring a demonstration that this source will not cause a violation of the hourly NO2 standard. In addition, this notice will also request comment on EPA's proposal not to require this source to meet emissions limitations for greenhouse gases or to demonstrate that the proposed source will not cause or contribute to a violation of the National Ambient Air Quality Standards for hourly concentrations of sulfur dioxide which became effective on August 23, 2010. The notice will also inform interested persons of the opportunity to provide comments on these subjects at a public hearing.

9. As a result of a recent ruling by the EPA Environmental Appeals Board, EPA has also determined that it is necessary to supplement its analysis of whether minority and low income communities may be disproportionately affected by emissions of NO2 from the Avenal facility. *See, In re: Shell Gulf of Mexico, Inc. and Shell Offshore, Inc.*, OCS Appeal Nos. 10-1 to 10-4, Slip. Op. at 63-81 (EAB December 30, 2010). A copy of this decision may be obtained at

<http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/OCS+Permit+Appeals+(CAA)?OpenView>.

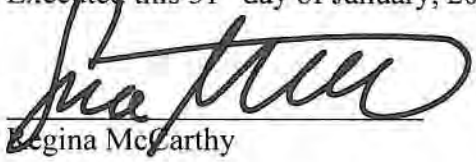
10. EPA is in the process of drafting a supplemental statement of basis to explain its justification for exempting Avenal from these additional requirements described above and to provide a supplemental analysis concerning disproportionate impacts to minority and low income communities. EPA requires an additional 3 weeks to complete this document.

11. Once the document described in paragraph 10 is completed, EPA requires an additional 3 weeks to complete and arrange for publication and direct mail distribution of the public notice. This time is necessary to translate the public notice into Spanish, book the public hearing venue and court reporter to transcribe the hearing, provide advanced copies of the public notice to newspapers for publication, and complete the procurement processes for such services. From the date this notice is published and distributed, EPA will require approximately 5 weeks to complete the public comment and hearing process, in order to allow the 33 days for public comment required by 40 CFR 124.10(b) and 124.20(d) and several additional days for completion of the public hearing. EPA is required to hold a public hearing if requested by any interested person, to provide 33 days notice of such a hearing, and to keep the public comment period open until the hearing concludes. 40 CFR 124.12; 40 CFR 124.10(b)(2); 124.20(d). EPA anticipates based on prior public comments on this permit that a public hearing will be requested. Thus, to expedite the public comment process as much as possible, EPA will provide public notice of the hearing at the same time as public notice of the supplemental statement of basis. In light of the scope of the issues addressed in the supplemental statement of basis, public interest in such matters, and volume of public comments EPA expects to receive, once the comment period ends, EPA will require an additional 6 weeks to consider public comments, prepare responses thereto, and issue a final permit decision in accordance with 40 CFR 124.15.

12. A least four EPA career staff persons and several additional supervisors already familiar with the subject matter are assigned to prepare and review these actions by EPA. The career staff preparing initial drafts of the necessary documents include an Environmental Engineer and Air Permits Manager in EPA's Region 9 office and staff attorneys from both the Region 9 Office of Regional Counsel and the Office of General Counsel at headquarters. At least 5 additional staff and supervisors in Region 9, the headquarters Office of Air and Radiation, and the Office of General Counsel will need to review and approve these actions. The timetable described above cannot be expedited by reassigning additional EPA staff because the time required for such persons to obtain the necessary familiarity with the technical and factual background on this permit application and the issues it presents (and already-assigned staff to train such persons) would offset any benefit from having more manpower involved.

13. After consideration of public comments the Agency may receive in response to this public notice, EPA will be able to complete final action on this permit application by May 27, 2011, as I have previously testified.

Executed this 31st day of January, 2011.



Regina McCarthy

Assistant Administrator
Office of Air and Radiation
United States EPA

EXHIBIT 10

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 1 2011

THE ADMINISTRATOR

MEMORANDUM

SUBJECT: Temporary Delegation of Authority to Authorize Assistant Administrator for the Office of Air and Radiation to Issue Decision on Prevention of Significant Deterioration Permit Application submitted by Avenal Power Center LLC

TO: Gina McCarthy
Assistant Administrator
Office of Air and Radiation

I hereby grant the assistant administrator for the Office of Air and Radiation the authority under section 165 of the Clean Air Act and U.S. Environmental Protection regulations at 40 CFR § 52.21 and 40 CFR Part 124 to issue a final permit decision on the application for a Prevention of Significant Deterioration (PSD) submitted to the EPA in February 2008 by Avenal Power Center LLC. This application seeks a permit to construct a 600 MW (net) electric generating facility in Kings County, California, consisting of two GE 7FA combustion turbines generators, two heat recovery steam generators, one steam turbine generator and associated equipment.

As to the procedures in 40 CFR Part 124, this delegation authorizes the assistant administrator for the Office of Air and Radiation to exercise authority applicable to PSD permit applications that is assigned to the regional administrator under the terms of 40 CFR Part 124. This includes the authority to issue a final permit decision under section 40 CFR § 124.15 and to take any other action assigned to a regional administrator under Part 124 that the assistant administrator determines is necessary to reach a final permit decision on the permit application described above. This delegation does not authorize the assistant administrator for the Office of Air and Radiation to exercise authority provided in section 124.19 of the regulations to consider any petition for review of the final permit decision, but authorizes the assistant administrator to publish notice of final agency action pursuant to section 124.19(f)(2).

This temporary delegation of authority will remain in effect for one year from the date of approval unless extended or superceded by a subsequent delegation(s). This authority may not be redelegated further.

References: Delegation 7-24.

Lisa P. Jackson

EXHIBIT 11

Supplemental Statement of Basis
PSD Permit Application for Avenal Energy Project
March 2011

EPA is supplementing its Statement of Basis for this application for a Clean Air Act Prevention of Significant Deterioration (PSD) permit to address several considerations that have arisen since the close of the comment period on this permit. Due to the fact that Avenal's permit application was complete and a proposed permit issued in advance of EPA's proposal of certain recently-promulgated regulations establishing new and additional requirements and other compelling factors, EPA has tentatively determined that it should grandfather this permit from those requirements, i.e., not require a demonstration of compliance with those requirements for this permit. Furthermore, EPA has determined that it is appropriate to provide a detailed Environmental Justice Analysis regarding its proposed PSD permit action for this facility for public comment. The proposed facility, called the Avenal Energy Project (Project) by the permit applicant, Avenal Power Center, LLP (APC), will be located in Kings County, California, and consists of two GE 7FA combustion turbine generators, two heat recovery steam generators, one steam turbine generator, and associated equipment. The proposed location for the Project constitutes the majority of the northeast quarter of Section 19, Township 21 South, Range 18 East, Mt. Diablo Base and Meridian. The Kings County Assessor's Parcel Number (APN) for this location is 36-170-035. The geographic coordinates for the proposed location are Latitude 36.088394° N and Longitude 120.061141° W. The proposed location is currently in agricultural production, is zoned industrial by the City of Avenal and is owned by the applicant. The City of Avenal has informed the EPA that the unofficial address for this location's APN is 33119 Avenal Cutoff Road, Avenal, California 93204. EPA Region 9 first received the application for this permit in February 2008 and notified the applicant on March 19, 2008 that its permit application was complete,[1] in accordance with the procedure described in EPA regulations. 40 CFR 124.3(c).

On June 16, 2009, EPA Region 9 issued for public comment a proposed permit for the Project, which would grant conditional approval, in accordance with the PSD regulations, to APC to construct and operate a 600 MW (net) electric generating facility, along with a statement of basis and ambient air quality impact report describing the basis for the permit conditions and other related information. The proposed PSD permit requires the use of Best Available Control Technology (BACT) to limit emissions to the greatest extent feasible of carbon monoxide (CO), oxides of nitrogen (NO_x), particulate matter (PM), and particulate matter less than 10 micrometers in diameter (PM_{10}). The area in which this facility will be located is in attainment with the National Ambient Air Quality Standards (NAAQS) for these pollutants, as well as sulfur dioxide (SO2) and lead. We note that the area where this facility will be located is not meeting the NAAQS for ozone and particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$). The emissions from the proposed project of the air pollutants (including precursors to the formation of these pollutants) for which the relevant area is not attaining the NAAQS are regulated under the Nonattainment New Source Review permitting program administered by the San Joaquin Valley Air Pollution Control District (District).

[1] Under 40 CFR 52.21(b)(22), "[c]omplete means, in reference to an application for a permit, that the application contains all of the information necessary for processing the application."

EPA provided public notices requesting public comment on the proposed permit for the Project on June 16, 2009, August 27, 2009 through August 29, 2009, and September 11, 2009. The August and September 2009 notices announced that EPA would extend the public comment period and hold a public information meeting and two public hearings in conjunction with its proposed PSD permit for the Project. The public information meeting and two public hearings were held as scheduled, and the public comment period for the proposed permit closed on October 15, 2009.

In parallel with this process required under the Clean Air Act, EPA has taken the steps necessary to ensure its action on this permit application complies with section 7 of the Endangered Species Act. EPA requested initiation of consultation with the U.S. Fish and Wildlife Service under section 7 of the ESA on July 10, 2008, and provided additional information requested by the Service on October 22, 2008. The U.S. Fish and Wildlife Service completed its biological opinion concluding the formal consultation process in August 2010.

At this point, the APC permit application has been pending well beyond the one-year deadline by which the Clean Air Act requires EPA to take action to grant or deny this application. The permit applicant has filed a suit in federal District Court to compel EPA to reach a final decision on this permit application. EPA has represented to the Court that it would be able to issue a final permit decision in accordance with 40 CFR 124.15 by May 27, 2011 after taking comment on this supplemental statement of basis.

EPA is providing an additional public hearing and opportunity to comment on this supplemental statement of basis, as described in the associated public notice.

I. Grandfathering From Requirements Established by Recently Promulgated Rules

EPA has determined that it is not appropriate or equitable under the circumstances present here to require this permit applicant to meet certain recently promulgated requirements that have taken effect while EPA has been in the process of reviewing this application. For the reasons discussed below, EPA believes it is authorized to issue a PSD permit to this applicant without requiring a demonstration that the source will not cause or contribute to a violation of the nitrogen dioxide (NO2) or sulfur dioxide (SO2) NAAQS for the one-hour averaging time or a showing that this source will meet the BACT requirement for greenhouse gases.

In 2010, EPA completed a series of regulations that established additional standards and criteria applicable to the review and issuance of permits to construct or modify major stationary sources of air pollution under the PSD program. The relevant regulations include NAAQS for hourly concentrations of NO2 and SO2 and limitations on greenhouse gas emissions from light duty vehicles. EPA first proposed these regulations in July 2009, December 2009, and September 2009 respectively. Under EPA's interpretation of applicable statutes and regulations, these new regulations created additional standards and criteria that became applicable to the review and issuance of PSD permits when the new regulations became effective. This is because the criteria for issuance of PSD permits include requirements that a source demonstrate it will not cause or contribute to a violation of any NAAQS and that the proposed source will meet

emissions limitations achievable through application of BACT for each pollutant subject to regulation under the Clean Air Act ("the Act"). 42 U.S.C. 7475(a)(3)-(4); 40 C.F.R. 52.21(k); 40 C.F.R. 52.21(b)(12); 75 Fed. Reg. 17004 (April 2, 2010). When completing the regulations to establish NAAQS for hourly NO2 and SO2 concentrations and the limitations on greenhouse gas emissions from light duty vehicles, EPA did not adopt transitional provisions in the PSD regulations to grandfather any permit applications that were pending at the time the new requirements took effect.

Nevertheless, EPA has determined in this case that it should not apply the criteria and standards described in the preceding paragraph to the APC permit application under the circumstances that are presented here. EPA first proposed the hourly NO2 standard more than a year after the time that EPA determined APC's PSD permit application was complete. Indeed, EPA had issued a proposed PSD permit for the project prior to the proposal date of the NAAQS standard. At this point, the APC permit application has been pending for nearly two years beyond the statutory deadline by which EPA was required to make a decision to grant or deny this application. This delay has been exacerbated by the need for APC to conduct an analysis to show that the proposed APC facility will not cause a violation of the hourly NO2 NAAQS, in accordance with EPA previously announced interpretation of the PSD regulations. In consideration of EPA's statutory obligation to take action on this permit application in a timely manner, the nature of the source APC seeks to construct, and the factors that have contributed to the extended delay in this case, EPA does not believe it is appropriate or equitable at this point to require that APC demonstrate compliance with the hourly NO2 NAAQS or additional requirements that have taken effect during the extended delay that has resulted from EPA's prior interpretation that APC should make such a showing before EPA could grant the permit application.

A. Substantive and Procedural Requirements Applicable to PSD Permitting

Section 165 of the Act (42 U.S.C. § 7475) and EPA's implementing regulations (40 C.F.R. § 52.21; 40 C.F.R. Part 124) contain both substantive and procedural requirements that must be satisfied before a PSD permit may be issued to authorize construction or modification of a major stationary source of air pollutants. When EPA promulgates a new NAAQS and completes rules that make an additional pollutant subject to regulation under the Act,[2] the Agency must take care to ensure that PSD permit decisions are made in accordance with both the substantive and procedural requirements of the Act and EPA's implementing regulations.

NAAQS Compliance

Among the substantive requirements, the Clean Air Act and PSD regulations provide that a permit may not be issued unless the applicant demonstrates that the source will not cause or contribute to a violation of "any NAAQS." 42 U.S.C. § 7475(a)(3); 40 C.F.R. 52.21(k). This requirement does not apply to any NAAQS for which the area in which the source proposes to locate is designated non-attainment. 40 C.F.R. 52.21(i)(2). EPA has previously explained that, as a general matter, each decision to issue a PSD permit should be supported by a record

[2] Such pollutants are defined in EPA regulations as a "regulated NSR pollutant." 40 C.F.R. § 52.21(b)(50).

showing that the applicant will not cause or contribute to a violation of any NAAQS (except one for which the area is designated nonattainment) that is effective on or before the date that the permit is issued. On April 1, 2010, the Director of EPA's Office of Air Quality Planning and Standards issued a memorandum reminding Regional Offices that EPA interprets the phrase "any NAAQS" contained in the PSD provisions of the Act and EPA regulations to cover any NAAQS in effect at the time of a final permit decision. The memorandum cited prior instances where EPA has applied this interpretation, including one where EPA also issued a rule to grandfather some pending applications from the requirement to show the source would not violate the NAAQS for PM10. 52 Fed. Reg. 24672 (July 1, 1987). The April 2010 memorandum said the following:

> [P]ermits issued under 40 CFR 52.21 on or after April 12, 2010, must contain a demonstration that the source's allowable emissions will not cause or contribute to a violation of the new 1-hour NO2 NAAQS. … There are no exceptions under 40 CFR 52.21 in this case because as noted above, EPA has not adopted a grandfathering provision applicable to the 1-hour NO2 NAAQS that would enable the required permit to be issued to a prospective source.

One day later, EPA also addressed this subject in the context of a final decision published in the Federal Register on the topic of the pollutants subject to the requirements of the PSD program. 75 Fed. Reg. 17004 (April 2, 2010). This document said the following:

> EPA generally interprets a revised NAAQS that establishes either a lower level for the standard or a new averaging time for a pollutant already regulated to apply upon the effective date of the revised NAAQS. Thus, unless EPA promulgates a grandfathering provision that allows pending applications to apply standards in effect when the application is complete, a final permit decision issued after the effective date of a NAAQS must consider such a NAAQS.

Id. at 17008.

Best Available Control Technology

PSD permit applicants must also show that the proposed source will meet an emissions limitation based on application of BACT for each pollutant subject to regulation under the Act. 42 U.S.C. 7475(a)(4). As discussed in EPA's final action entitled "Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs," EPA construes the BACT requirement to apply to each pollutant that is subject to regulation under the Act at the time a PSD permit is issued. 75 Fed. Reg. 17004 (April 2, 2010). In this April 2010 action explaining EPA's decision to continue following a legal interpretation established in a December 2008 memorandum from the Administrator ("PSD Interpretive Memo"), EPA identified January 2, 2011 as the date when greenhouse gases would first became subject to regulation under the Act. January 2, 2011 is the date when the first regulatory requirement to control emissions of greenhouse gases under the Clean Air Act takes effect under the Light Duty Vehicle Rule that EPA completed on May 7, 2010. 75 Fed. Reg. 25324. EPA proposed the vehicle rule on September 28, 2009.

EPA also explained in the April 2, 2010 final action described above that the Agency did not "see any grounds to establish a transition period for permit applications that are pending before GHGs become subject to regulation." Id. at 17021. EPA did not see a basis to promulgate a grandfathering provision for greenhouse gases because permit applications pending prior to April 2, 2010 already had a transition period of nine months in which the permit could be issued without addressing the BACT requirement for greenhouse gases. For permits that could not be issued in that nine-month period, EPA believed that it would be feasible to begin incorporating greenhouse gas considerations into permit reviews in parallel with completion of work on other pollutants. EPA also observed that permit applicants had notice that greenhouse gases would become subject to regulation for purposes of the PSD program upon completion of the light duty vehicle standards. Thus, the Agency said in April 2010 that "EPA does not intend to promulgate a transition or grandfathering provision that exempts pending permit applications from the onset of GHG requirements in the PSD program." EPA also explained that "in the absence of such a provision, PSD permits that are issued on or after January 2, 2011 … will be required to contain the provisions that fulfill the applicable program requirements for GHGs." Id. at 17022. In June 2010, EPA affirmed that it did not intend to adopt a grandfathering provision for greenhouse gases when the Agency completed the PSD and Title V Greenhouse Gas Tailoring Rule. 75 Fed. Reg. 31514, 31592-93 (June 3, 2010).

Timely Permit Review

The Act also requires that permitting authorities complete review of PSD permit applications in a timely manner. Section 165(c) of the Act specifies that "[a]ny completed permit application under section 7410 of this title for a major emitting facility in any area to which this part applies shall be granted or denied not later than one year after the date of filing of such completed application." 42 U.S.C. § 7475(c). EPA should be mindful of this obligation when establishing new regulations that affect the requirements applicable to PSD permit applications, especially applications that are in process at the time additional requirements become effective.

Under certain circumstances EPA has previously established transition provisions which relieved persons proposing new major sources and major modifications that have submitted a complete PSD permit application from having to amend applications to demonstrate compliance with the new PSD requirements. For example, EPA adopted such a provision to address the transition from the TSP NAAQS to the PM_{10} NAAQS. See, 40 CFR 52.21(i)(1)(x). EPA adopted similar provisions pertaining to new or revised PSD increments for NO2 and particulate matter. 40 CFR 52.21(i)(9)-(10). Permit applicants meeting the eligibility criteria in these provisions were grandfathered from the new PSD requirements that otherwise would have applied to them.

B. Grounds for Grandfathering this Permit Application from New Requirements

In order to balance EPA's statutory obligations to issue permits in a timely manner and in accordance with the substantive requirements of the Act, EPA is proposing to issue a PSD permit to APC without requiring a showing that this source will not cause or contribute to a violation of

the hourly NO2 and SO2 NAAQS or establishing emissions limitations for greenhouse gases in the permit. This determination is based on the following factors that are discussed in more detail below:

(1) The facility that APC proposes to construct will be a well-controlled, natural-gas fired electric generating facility that will apply BACT for NO2 and not cause or contribute to a violation of the NAAQS that were in place before promulgation of the hourly standards;

(2) APC's permit application was deemed complete by EPA more than a year before, and EPA had issued a proposed permit for the project one month before, the date on which EPA proposed the hourly NO2 NAAQS.

(3) Unanticipated challenges with the preparation and review of sufficient information to predict the impact of proposed sources on hourly NO2 concentrations were not apparent when EPA determined there was no need to establish a grandfathering provision for this requirement and others that followed.

(4) The challenges encountered in supplementing the APC permit application to address the hourly NO2 NAAQS caused additional delay beyond the dates when the hourly SO2 NAAQS and greenhouse gas requirements became applicable to PSD permit applications.

(5) Court decisions recognize an exception, in cases of significant delay by the administrative agency, to the general rule that an administrative agency should apply the law in effect at the time its issues a permit or license.

Considering these factors and EPA's statutory obligations to complete action on this permit in a timely manner, EPA believes there is cause to grandfather this permit application from the identified requirements in order to reconcile competing obligations under the Clean Air Act and achieve an equitable outcome.

Projected Emissions from the APC Facility

The facility that APC seeks authorization to construct is a state-of-the-art natural-gas fired electric generating facility that will achieve the lowest levels of air pollutant emissions achievable in this instance. The proposed PSD permit requires the use of BACT to limit emissions of carbon monoxide (CO), oxides of nitrogen (NO_x), particulate matter (PM), and particulate matter less than 10 micrometers in diameter (PM_{10}). *See*, Statement of Basis and Ambient Air Quality Impact Report, Section 7, pp. 15-23 (June 2009)

The record for this permit demonstrates that the source will not cause or contribute to a violation of any NAAQS regulated under the permit that was in effect at the time EPA issued a proposed permit for this project. EPA has determined from the modeled results for the facility that the Project impacts are well below (in all cases, less than 6 percent of) the applicable NAAQS for the PSD pollutants addressed in the PSD permit. The maximum modeled impact of NO2 for the annual averaging period is 0.5 µg/m3, less than 1 percent of the NAAQS of 100

µg/m3. The modeled PM10 impact (24-hour averaging period) is 2.9 µg/m3, approximately 2 percent of the PM10 24-hour NAAQS of 150 µg/m3. The modeled CO impact for the 8-hour averaging period is 337 µg/m3, less than 4 percent of the NAAQS of 10,000 µg/m3, and the modeled CO impact for the 1-hour averaging period is 2,175 µg/m3, less than 6 percent of the NAAQS of 40,000 µg/m3. *See,* Statement of Basis and Ambient Air Quality Impact Report, Section 8, pp. 24-27 (June 2009); 40 C.F.R Part 50.

Proposal of Hourly NO2 NAAQS After Application Completed

At the time its permit application was deemed complete, Avenal did not have notice of the potential for the hourly NO2 NAAQS requirement to become applicable when its permit application was completed. EPA declared the Avenal PSD permit application complete in March 2008. EPA proposed the hourly NO2 NAAQS over a year later on July 15, 2009.

Complications with Implementation of Hourly NO2 NAAQS

EPA issued the hourly NO2 NAAQS on February 9, 2010 and established that this standard would become effective on April 12, 2010. At that time, EPA did not consider adopting a transitional provision for pending permit applications completed prior to this date. EPA expected that permit applicants would readily be able to determine, based on existing EPA modeling guidelines, how to expeditiously complete the analysis necessary to show that stationary source construction would not cause or contribute to violations of the hourly NO2 NAAQS. However, some PSD permit applicants have experienced unforeseen challenges with the preparation of sufficient information to predict the impact of the proposed source on hourly NO2 concentrations in accordance with PSD modeling guidelines.

EPA has approved the air quality dispersion model known as AERMOD for use in several regulatory applications, including use by permit applicants to demonstrate that the sources they propose to build will not cause or contribute to violations of the hourly NO2 standard. On February 25, 2010, before the hourly NO2 standard became effective, EPA issued a Notice Regarding Modeling for New Hourly NO2 NAAQS, which explained that the current AERMOD model should be used in accordance with established guidelines on the application of this and other air quality models contained in 40 C.F.R. Part 51, Appendix W. In addition, after the hourly NO2 NAAQS became effective, EPA issued two additional guidance memoranda on June 28, 2010. One of those memoranda, entitled "*Applicability of Appendix W Modeling Guidance for the 1-hour NO2 National Ambient Air Quality Standard,*" provided additional technical guidance on using AERMOD to demonstrate that proposed construction of a stationary source will not cause or contribute to a violation of the hourly NO2 standard. EPA believed these actions would be sufficient to enable all permit applicants, including those with applications pending on April 12, 2010 when the NO2 NAAQS became effective, to complete appropriate modeling of hourly NO2 concentrations.

Despite these actions by EPA, some applicants seeking PSD permits to construct or modify stationary sources of air pollution have experienced unforeseen challenges with the timely preparation of sufficient information to demonstrate that the proposed construction will not cause or contribute to violations of the hourly NO2 NAAQS. These challenges have

resulted from the fact that to address the hourly NO2 NAAQS, many permit applicants need to conduct a cumulative air quality impact assessment. This has also necessitated the application of modeling techniques that are more refined than those that have previously been adequate to demonstrate compliance with the annual NO2 standard. These refined modeling techniques require consideration of the chemical transformation of NOx emissions through the Ozone Limiting Method or Plume Volume Molar Ratio Method under the third and most-refined Tier of EPA's modeling guidelines applicable to NO2. Additional refinements in the determination of background concentrations based on modeling of nearby sources and ambient monitoring data may also be necessary in many cases. This level of refinement requires acquisition and analysis of additional data inputs that are available but not as readily accessible to permit applicants as has been the case with other data used in air quality modeling for annual NO2 concentrations. Permit applicants and permitting authorities have needed more time than EPA expected to develop familiarity with these refined approaches and to obtain and analyze the necessary data.

Due in part to these complications, APC's efforts to complete a sufficient modeling demonstration to show this source will not cause or contribute to violations of the hourly NO2 standard has produced unanticipated delays in the review of the PSD permit application submitted by APC. This has exacerbated EPA's failure to comply with the statutory deadline for action on this permit application. The potential for such a circumstance to arise was not apparent when EPA completed the hourly NO2 NAAQS without grandfathering pending PSD permit applications at that time.

Greenhouse Gas Requirements

When EPA completed the reconsideration of the PSD Interpretive Memo in April 2010 and identified the date on which greenhouse gases would become subject to regulation, the Agency's conclusion that it would not be necessary to establish a transitional provision for the PSD requirements applicable to greenhouse gases was informed by the assumption that permits pending as of April 2010 would reasonably be expected to be issued within the next nine months. Thus, when EPA concluded that the approximately nine months remaining until January 2, 2011 was a sufficient transition period for completing action on most pending permit applications without having to address the greenhouse gas requirements, EPA had not considered the potential delays that would result for long-pending complete permit applications such as APC's from completion of modeling to address the hourly NO2 NAAQS. Since these delays have prevented EPA from issuing a final decision on the APC permit application by January 2, 2011, EPA believes it is appropriate to grandfather this permit from the greenhouse gas requirements. If not for the delays associated with addressing the hourly NO2 NAAQS requirements, EPA would have completed action on the APC permit application prior to January 2, 2011 and the application would not have been subject to the greenhouse gas requirements. The limited grandfather from the GHG requirements that EPA is applying in this case is justified to provide this permit applicant with the benefit of the 9-month transitional period EPA identified in April 2010 before the complications associated with implementing the hourly NO2 NAAQS in the PSD permitting program became apparent.

Hourly SO2 NAAQS

On June 22, 2010, EPA published a final rule establishing a primary SO2 NAAQS based on a 1-hour averaging time. 75 Fed. Reg. 35,520 (Jun. 22, 2010). That rule became effective on August 23, 2010. EPA first proposed this standard on December 8, 2009, more than 20 months after EPA determined Avenal's application was complete. As with the greenhouse gas requirement, the Agency's decision not to establish a transitional provision for the hourly SO2 NAAQS was informed by the assumption that an hourly NO2 NAAQS modeling demonstration could be completed more expeditiously than has proven to be the case for the APC permit. EPA did not anticipate that delays in completing modeling for the hourly NO2 NAAQS would impede EPA's ability to complete action on the long-pending complete permit applications such as APC's before the hourly SO2 NAAQS became effective on August 23, 2010. Similar to the situation described above with respect to greenhouse gases, EPA would have been able to complete action on this permit application before August 23, 2010 if it had not requested additional information from Avenal to address the hourly NO2 NAAQS and experienced the complications described.

Although these considerations support grandfathering this permit application from the hourly SO2 NAAQS, we note that because of the low SO2 emissions from this facility, EPA regulations do not require additional analysis to demonstrate that this source will not cause a violation of the hourly SO2 NAAQS. The Project's SO2 emissions are estimated to be 16.7 tons per year. Since this is well below the 40 tons per year significant emissions rate for SO2, additional analysis is not required from APC. *See* 40 C.F.R. §§ 52.21(m)(1) and 52.21(b)(23)(i). Sources with emissions below these levels are considered to have a negligible or "de minimis" impact on air quality that would not cause or contribute to violation of the NAAQS for the pollutant in question. Thus, further analysis is not required under EPA regulations.

Judicial Decisions Support Grandfathering the Permit Application from New Requirements in this Case

EPA's proposed action to grandfather this permit application that has been pending for well beyond the statutory deadline for action is supported by judicial opinions that have addressed analogous circumstances involving a change in legal requirements while action on an application for a government approval was unduly delayed. In the April 2010 interpretive statements described above, EPA relied on judicial opinions supporting the general principle that a decision on an application for a government license, permit, or other type of authorization must be based on the law in effect at the time of the decision of the reviewing authority. See *Ziffrin, Inc. v. United States*, 318 U.S. 73, 78 (1943); *State of Alabama v. EPA*, 557 F.2d 1101, 1108 (5th Cir. 1977). However, some courts have also recognized an exception to this principle in circumstances where there has been a significant and prejudicial delay by the government agency reviewing an application. These courts have extended to actions by government agencies a principle that courts sometimes apply when they themselves are unable for various reasons to issue decisions in a timely manner. The judicial principle has been expressed by the Supreme Court as follows:

> where the delay in rendering a judgment or a decree arises from the act of the court, that is, where the delay has been caused either by the convenience, or by the multiplicity or press of business, either the intricacy of the questions involved, or of any other cause not attributable to the laches of the parties, the judgment or decree may be entered retrospectively, as of a time it should or might have been entered up.

Mitchell v. Overman, 103 U.S. 62, 64-65 (1880). This principle is sometimes identified by the Latin maxim *actus curiae neminem gravabit.*

In one such case applying this principle to action by a government agency, an individual had applied for U.S. citizenship under a statute that expired before the government acted on his application. The court held that the individual was entitled to have his petition for naturalization granted under the expired law because of the government's delay in the approval of his application. *Application of Martini*, 184 F.Supp. 395, 401-402 (S.D.N.Y. 1960). That court opinion applies the judicial principle described above "to the delay caused by administrative inaction." 184 F.Supp. at 401-402. The United States Court of Appeals for the Second Circuit later observed that the above case and others had applied this principle to "situations involving prejudicial delays in the administrative proceedings." *Fassilis v. Esperdy*, 301 F.2d 429, 434 (2d Cir. 1962). However, the Second Circuit actually declined to reach the same result in the absence of a similar showing of delay. *Id.* This opinion of the Second Circuit followed the general principle described in *Ziffrin Inc. v. United States*, 318 U.S. 73 (1943) that an administrative agency should apply the law in effect at the time of its final decision on an application. Nevertheless, the Second Circuit case did not question the earlier decisions that applied an exception to this principle where there has been a meaningful delay by an administrative agency. *Id*. at 434. Although the Second Circuit upheld several denials of applications for permanent residency status based in part on a change in law that occurred during administrative appeals of the denials, this result was based on the court's conclusion that there were "no substantial delays on the part of the administrative agency which operated to deprive the applicants of any right to which any of them was entitled." *Id.* Thus, the *Fassilis* opinion appears to confirm the viability of the principle applied in the *Martini* case where there has been a significant delay by an administrative agency.

Together, the above cases support the view that an administrative agency has the power in limited and compelling circumstances to issue a permit decision based on the legal requirements that were applicable at the time the Agency should have taken action.

Conclusion Regarding Grandfathering

Notwithstanding these considerations, EPA must also ensure compliance with the substantive requirements of the Clean Air Act. The Act does not expressly authorize EPA to waive the substantive permitting criteria when a permit application has not been granted or denied within the one-year deadline. Thus, EPA must consider how to reconcile what have now become conflicting statutory obligations because of the delays in processing this permit application. Given the ambiguity in the Act on this point, EPA has the discretion to apply a permissible interpretation of the Act that balances the requirements in the Act to make a decision

on a permit application within one year and to ensure that new and modified sources will only be authorized to construct after showing they can meet the substantive permitting criteria. Given the nature of the facility APC proposes to construct, the fact that EPA proposed the hourly NO2 NAAQS more than a year after Avenal's application was complete and after EPA had proposed to approve it, the delay in processing this application that resulted from promulgation of this standard, and the judicial precedent described above, EPA believes it is appropriate to reconcile these competing legal obligations by not requiring that APC show it will not cause or contribute to a violation of the one-hour NAAQS for NO2 and SO2 or that this facility will be capable of meeting emissions limitations for greenhouse gases based on the BACT requirement.

Although EPA previously issued interpretive statements that suggest grandfathering is not permissible in any circumstance absent an express grandfathering provision in the regulations, this previous interpretation should not apply to the circumstances present here. In making those prior statements, EPA had not sufficiently considered the judicial decisions described above and the present circumstances where several factors have combined to cause a delay of EPA's action on the APC permit nearly two years beyond the statutory deadline. In light of these circumstances and the extended delay of EPA's action on the APC permit application attributable to the challenges experienced in attempting to address the hourly NO2 NAAQS, EPA reads the law to allow EPA to issue this permit application based on the criteria and standards applicable to PSD permit decisions prior to the effective date of the hourly NO2 NAAQS.

The previous interpretive statements discussed above were reflected in actions of officials from EPA's headquarters offices. In order to effectuate the refinement of the previous Agency interpretations described above and to facilitate issuance of this permit, EPA's Assistant Administrator for Air and Radiation is issuing this statement of basis and intends to issue the final permit decision for the APC permit application after consideration of any public comment that may be submitted on this action. This action is authorized under a special delegation from the EPA Administrator contained in the administrative record.

II. Environmental Justice Analysis

Introduction

Executive Order 12898 entitled "Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations" states in relevant part that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." Section 1-101 of Exec. Order 12898, 59 Fed. Reg. 7629, (Feb. 16, 1994) "Federal agencies are required to implement this order consistent with, and to the extent permitted by, existing law."*Id.* at 7632. Based on this Executive Order, the EPA's Environmental Appeals Board (EAB) has held that environmental justice issues must be considered in connection with the issuance of federal Prevention of Significant Deterioration (PSD) permits issued by EPA Regional Offices and states acting under delegations of Federal authority. *See, e.g.*, In *re Prairie State Generating Company*, 13 E.A.D. 1, 123 (EAB 2006); *In re Knauf Fiber Glass, GmbH*, 8 E.A.D. 121, 174-75 (EAB 1999) ("Knauf I"). EPA Regional Offices or their delegates in the states have for several years incorporated environmental justice considerations into their review of applications for PSD permits. The EAB reinforced the importance of completing an environmental justice analysis in a recent opinion discussed further below. *See, , In re: Shell Gulf of Mexico, Inc. and Shell Offshore, Inc.*, OCS Appeal Nos. 10-1 to 10-4, Slip Op. at 63-4, (EAB December 30, 2010) ("Shell II").

During the extended public comment period that EPA provided in 2009 regarding the proposed PSD permit for the Avenal Energy Project (Project), EPA received a number of comments concerning potential impacts on the surrounding communities, and we will respond to those in the Response to Comments that will accompany our final permit decision. For reasons we discuss in detail below, we have prepared this separate Environmental Justice Analysis to address the question of potential impacts of emissions of the air pollutants addressed in EPA's PSD permit action, and in particular short-term NO2 exposures. Another environmental justice analysis was conducted, as part of the state permitting and certification process for this Project, that addresses certain other air pollutants, namely ozone and fine particles, and we have summarized the results of that analysis in this document. We note that the local air district permit and the California Energy Commission (CEC)'s certification are the subject of a complaint submitted to EPA under Title VI of the Civil Rights Act.

For purposes of the Executive Order on environmental justice, EPA has recognized that compliance with the applicable NAAQS is emblematic of achieving a level of public health protection that demonstrates that EPA's issuance of a PSD permit for a proposed facility will not have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations. See e.g., *Shell II.* slip op. 74; *In re Shell Offshore Inc.*, 13 E.A.D. 357, 404-5 (EAB 2007) ("Shell I"); *In re Knauf Fiber Glass, GmbH*, 9 E.A.D 1, 15-17 (EAB 2000) ("Knauf II"); *In re AES Puerto Rico*, L.P., 8 E.A.D. 324, 351 (EAB 1999). This is because the NAAQS are health-based standards, designed to protect public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics. As the EAB recently observed, "[i]n the context of an environmental justice

analysis, compliance with the NAAQS is emblematic of achieving a level of public health protection that, based on the level of protection afforded by the NAAQS, demonstrates that minority or low-income populations will not experience disproportionately high and adverse human health or environmental effects due to exposure to relevant criteria pollutants." Shell, Slip Op. at 73. This is supported by the fact that "[t]he Agency sets the NAAQS using technical and scientific expertise, ensuring that the primary NAAQS protects the public health with an adequate margin of safety." *Shell II*, Slip Op. at 73.

The studies assessed by EPA in setting NAAQS and the integration of the scientific evidence presented therein have undergone extensive critical review by EPA, the Clean Air Scientific Advisory Committee (CASAC), and the public. Final Rule, 75 Fed. Reg. 6474, 6478 Feb. 9, 2010. "The rigor of the review makes these studies, and their integrative assessment, the most reliable source of scientific information on which to base decisions on the NAAQS." Id. When setting the NAAQS, "[t]he Administrator's final decisions draw upon scientific information and analysis related to health effects, population exposures, and risks; judgments about the appropriate response to the range of uncertainties that are inherent in scientific evidence and analyses; and comment received from CASAC and the public." Id. at 6483. In light of these characteristics of the process for setting the standards, the EAB generally "relies on and defers to the Agency's cumulative expertise when upholding a permit issuer's environmental justice analysis based on a proposed facility's compliance with the relevant NAAQS in a PSD appeal." *Shell II*, Slip. Op. at 74. The NAAQS are also the underpinning for the State Implementation Plan process, which requires states to adopt rules and programs that will reduce emissions causing air pollution.

Pursuant to Clean Air Act section 165(a)(3), construction of a major emitting facility may not commence until the owner or operator of such facility demonstrates, among other things, that the facility will not cause or contribute to air pollution in excess of any NAAQS applicable to the permit decision. 42 U.S.C. § 7475(a)(3); see also 40 C.F.R. §§ 52.21(k), 52.21(i)(2). EPA proposes to regulate emissions affecting the following NAAQS under the PSD permit: NO2 (annual average), CO (1-hr and 8-hr average), and PM10 (24-hr). The proposed permit does not contain emission limitations for SO2 because, as noted above, the Project's SO2 emissions are estimated to be 16.7 tons per year, which is well below the 40 tons per year significant emissions rate for SO2. *See* 40 C.F.R. §§ 52.21(b)(23)(i); 52.21(j)(2); 52.21(m)(1). EPA has determined that the proposed facility's projected emissions will not cause or contribute to a violation of the applicable NAAQS, and are, in fact, well below the NAAQS. Indeed, EPA estimated that the projected emissions would be very low – i.e., less than 6% of the applicable NAAQS. Using that information for its environmental justice analysis, EPA has determined that compliance with the applicable NAAQS is indeed sufficient to satisfy the Executive Order as to those regulated pollutants.

Furthermore, Section 165(a) (2) of the CAA provides that a PSD permit may be issued only after "a public hearing has been held with opportunity for interested persons including representatives of the Administrator to appear and provide written or oral presentations on the air quality impact of [the proposed] source, alternatives thereto, control technology requirements, and other appropriate considerations." In light of the Agency's proposed determination that it should grandfather this permit application from the 1-hour

NO2 NAAQS, EPA's environmental justice analysis considers "other appropriate considerations" that extend beyond the impacts of the pollutants and NAAQS for those pollutants that are addressed in the PSD permit.

In this case, EPA's environmental justice analysis will consider not only the annual NO2 NAAQS, which was applicable at the time of the permit application and when EPA issued a proposed permit for the project, but also the potential impacts of the facility on short-term NO2 concentrations. EPA is examining short-term NO2 concentrations – even though EPA is proposing not to apply the new one-hour NO2 NAAQS to this permit application – because the Agency recently determined that the annual NO2 standard alone is not sufficient to protect public health with an adequate margin of safety against adverse respiratory effects associated with short-term exposures to NO2. Final Rule, 75 Fed. Reg. 6474, (Feb. 9, 2010) Therefore, EPA's environmental justice analysis considers whether short-term exposures to NO2 emissions from the Project may result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

The Project is also subject to an air permit issued on November 4, 2008 by the San Joaquin Valley Air Pollution Control District (District), which includes conditions necessary to satisfy the requirements of the Non-attainment New Source Review (NSR) Program under sections 172(c)(5) and 173 of the Clean Air Act. This permit addresses ozone, one of the two air pollutants for which the San Joaquin Valley (Valley) has been designated non-attainment.[3] The facility's projected emissions are below the threshold that would trigger non-attainment new source review of the other non-attainment pollutant – PM2.5. The California Energy Commission, in reviewing the permit applicant's Application for Certification relating to the aforementioned District permit, analyzed environmental justice considerations pertaining to, among other things, the proposed siting and emissions profile of the facility. This analysis is contained in the California Energy Commission's Final Commission Decision (08-AFC-1) (December 2009).

The District's action in issuing an NSR permit for this facility and the CEC's action in certifying the Project are the subject of a pending administrative complaint under Title VI of the Civil Rights Act. This complaint, submitted to EPA on October 15, 2009 by Greenaction for Health and Environmental Justice, alleges that the District discriminated against Avenal and Kettleman City residents of color and Spanish-speakers by failing to notify or involve residents during the decision-making process. In addition, the complaint alleges that operation of the proposed Avenal power plant will result in adverse health impacts on the residents of color of Avenal and Kettleman City, who are already impacted by multiple sources of pollution. EPA's Office of Civil Rights has accepted both of these allegations for investigation[4]. By letter dated

[3] New source review in non-attainment areas is different from PSD review. Because the area already has air quality that does not meet national health standards, and yet to preserve the ability for economic development to occur in those areas without exacerbating air quality and public health concerns, the Clean Air Act requires that sources seeking to build or expand in a non-attainment area must meet the Lowest Achievable Emissions Rate (LAER) and offset their anticipated new emissions by eliminating emissions of an equal, or depending on the severity of the non-attainment, greater amount. LAER requires a level of emissions reduction, through the use of control technology or other approaches, that is as or more stringent than Best Available Control Technology (BACT), which is required in attainment areas.

[4] EPA also referred to the US Department of Energy the second allegation as it relates to the actions of the CEC.

August 6, 2010, EPA notified the complainant that it is holding its investigation of the second allegation described above in abeyance because it is not ripe for review while EPA is still considering the PSD permit application.

Project Description and Regulatory Framework

As discussed above, the Avenal Power Center, LLC has applied to EPA for a PSD permit for the Project, a new natural gas fired power plant to be located in Kings County, California, within the San Joaquin Valley Air Pollution Control District, which covers 25,000 square miles and is about 250 miles long from the northern tip of San Joaquin County to the southern tip of Kern County.

Under the Clean Air Act, new sources of pollutants for an area that has been designated attainment or unclassifiable are regulated under the PSD program. In the San Joaquin Valley, these pollutants include NO2, PM10, SO2, lead, and CO, and therefore EPA's proposed PSD permit for the Project regulates those pollutants that the facility has the potential to emit in significant amounts. In addition, the facility will emit pollutants for which the San Joaquin Valley has been designated non-attainment. Specifically, the Valley is designated as an extreme non-attainment area for ozone and a non-attainment area for PM2.5. Thus, the non-attainment pollutants subject to NSR permitting by the District include NOx and VOC as ozone precursors, and PM2.5.[5] In addition, for power plants over 50 MW, the California Energy Commission (CEC) must issue a license to authorize construction of a proposed power plant. The District issued the non-attainment NSR permit for the facility on October 30, 2008 and the CEC completed its licensing process on December 16, 2009.

The Project is expected to produce approximately 600 megawatts (MW, nominal) net electrical output from natural gas-fired combined-cycle generating equipment. The facility will be operated in combined-cycle mode. Two combustion turbine generators (CTGs) will connect to a dedicated heat recovery steam generator (HRSG), where hot combustion exhaust gas will flow through a heat exchanger to generate steam. The facility will be equipped with natural gas-fired duct burners to augment steam production during peaking operation. Electrical power will be generated from the combustion of natural gas in two 180 MW (nominal) CTGs. Exhaust from each gas turbine will flow through the dedicated HRSG to produce steam to power a shared 300 MW (nominal) Steam Turbine Generator (STG).

The Project will be equipped with state-of-the-art control technology and will be one of the lowest emitting power plants of its kind. Each of the Project's CTGs will be equipped with dry low-NOx (DLN) combustors. The facility will install selective catalytic reduction (SCR) and oxidation catalyst (Ox-Cat) systems. SCR will be used to reduce NO_x emissions from the combustion turbine generators and the Ox-Cat to reduce emissions of carbon monoxide and volatile organic compounds. Additional equipment includes a natural gas-fired auxiliary boiler equipped with an ultra low-NOx burner, a natural gas-fired emergency generator equipped with a non-selective catalytic reduction (NSCR) system, and a diesel-fired emergency firewater pump

[5] The projected PM2.5 emissions from the Avenal facility fall below the regulatory threshold for new source review and there are no PM2.5 requirements in the District's permit.

engine with a turbo-charger and an inter-cooler/after-cooler. These pollution control technologies are required to meet the Best Available Control Technology (BACT) and Lowest Achievable Emissions Rate (LAER) requirements under the PSD and non-attainment NSR permitting programs.

The facility is expected to have emissions as shown in the following table[6].

Pollutant	Estimated Annual Emissions (tons/year)	Major Source Threshold (tons/year)	Significant Emission Rate (tons/year)	Does PSD apply?
CO	602.7	100	100	Yes
NO2	144.3	100	40	Yes
PM/PM10	80.7	100	25/15	Yes
SO_x	16.7	100	40	No

EPA's proposed permit includes, among other requirements, 1-hour emissions limits for NO2, CO, and PM/PM10 on a mass basis as well as 1-hour emissions limits for NO2 and CO on a concentration basis that meet PSD Best Available Control Technology requirements. Based on the BACT analysis EPA has conducted, the proposed permit requires the most stringent control technology available to reduce NO2 emissions.

Demographics, Health Data, and Air Quality in the Avenal Area

Description of Local Area

The project would be located on industrial zoned lands administered by the City of Avenal. Currently, the site is in agricultural use. This area is about 6 miles (~9.7 km) from the residential and business centers of the City of Avenal. The topography of the Kettleman Hills divides the populated areas of the City of Avenal from the project site. The City of Huron is located approximately 8 miles (~12.9 km) north of the site and Kettleman City is located approximately 10 miles (~16 km) southeast of the site[7].

Avenal has a population of 16,236, including 7,000 inmates at Avenal State Prison. Many of the remaining residents either work at the prison or in the agriculture or oil industries. The City of Huron in Fresno County is 9 miles (14.5 km) east of Interstate 5 (I-5) and 3 miles (4.8 km) south of Highway 198. Huron is home to over 7,400 residents and during the harvest season, from April to November, the city's population increases to over 9,000 with an influx of migrant laborers. The local economy is based on agriculture. Kettleman City is a small community with a population of approximately 1,620. The community is located in southern

[6] The facility is not expected to emit lead.
[7] Avenal Energy Application to California Energy Commission, Section 6-9, Land Use.

Kings County adjacent to the Interstate 5 freeway and surrounded by agricultural fields, and defunct oil and natural gas extraction operations. A hazardous waste landfill operated by Waste Management, Inc. is located in the Kettleman Hills about 3.5 miles (~5.6 km) southwest of Kettleman City.

Demographic Information

EPA believes an area encompassed by a 25 km radius from the proposed facility is appropriate for this environmental justice analysis as this includes populations of interest in the area that may be impacted by emissions from the Project. Demographic information for areas of 15 and 50 km radii are also provided for comparison. These areas include portions of Kings and Fresno counties. Thus, for health information EPA will present metrics for both Kings and Fresno counties. Relevant areas of comparison include the 8-county area of the San Joaquin Valley and the State of California as a whole.

Demographic information[8] is captured within three radii surrounding the proposed Avenal Energy Project at 50, 25 and 15km (see Appendix 1).

Radius, km	Population	Percent Minority	Percent Under Age 18	Percent Over Age 64	Percent Linguistically Isolated	Percent w/o High School Diploma	Average Median Household Income, $
15	25,660	85	24	3	34	51	27,221
25	32,244	82	25	3	30	50	27,771
50	162,723	62	29	7	11	35	36,843
Kings County	129,461	59	29	7	9	31	35,749
Fresno County	799,407	60	32	10	10	32	34,725
San Joaquin Valley	3,182,529	55	33	10	9	33	38,162
State of CA	33,871,648	53	27	11	10	23	47,493

All three radii capture populations above the state average for percent minority and below the state average for median household income. As the area decreases in size relative to the proposed facility, the percent minority increases. The median household income captured in the 15 km radius is more than $20,000 below the state average.

EPA's Final Report *Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (ISA)*[9] discussed below specifically identified children[10] (defined here as under 18 years

[8] US Census Bureau, 2000 Data, Summary File 3

old) and older adults (65+ years) as being particularly vulnerable to NO2 impacts. The percentages of children under 18 within the three radii are close to the state average. The percentages of older adults living within the three radii are lower than the state average.

Linguistic isolation[11] limits a household's capacity for civic engagement in the regulatory process. All three radii capture households that are above the state average for linguistic isolation. The percent of linguistically isolated households in the State of California is 10% and the percent of households in the 25km radius is 30%.

Education level is another factor that may influence susceptibility and vulnerability to air pollution. Limited formal education is a barrier to employment, health care and social resources, and can increase the risk of poverty, stress, and impacts from environmental stressors. The percent of population without a high school diploma increases the smaller the radius around the facility. Compared to the state average of 23%, the percent of population over 25 years of age without a high school diploma in the 25km radius is 50%. See Appendix 1 for block group maps of each demographic variable described above.

Status of Air Quality in the Area

The San Joaquin Valley is an extreme ozone non-attainment area and a non-attainment area for PM2.5. The area is designated as attainment or unclassifiable for PM10, NO2, CO, SO2, and lead. The San Joaquin Valley has some of the highest PM2.5 levels in the country.

As discussed in more detail below, EPA recently promulgated a 1-hour NO2 NAAQS of 100 ppb. EPA has not yet made attainment designations for this new standard. There is limited 1-hour NO2 monitoring data in California from EPA-approved monitoring network sites. The NO2 data for the monitoring network for California for 2006-2009 are presented in Appendix 2. The data in the table indicate that the 1 -hour NO2 monitored design values for 2007-2009 range from 5.1 ppb to 85.5 ppb. The ambient monitoring sites nearest to the Project are the Hanford monitoring site which is 28 miles from the facility, and the Visalia monitoring site which is 46 miles from the facility[12]. The NO2 design value monitored at the Visalia site is 61.3 ppb and for

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[9] Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (Final Report), Section 4.3, U.S. Environmental Protection Agency, Washington DC, EPA/600/R-08/071, 2008.

[10] Children are particularly vulnerable to adverse health effects from air pollution because:

- Children's lungs are still developing. This period of growth and development of the lungs is a critical time period for health effects from exposure to air pollution. Exposures to air pollutants during this time can have life-long effects on the lungs, including lung capacity, the diameter of the airways, and the number and types of cells that line the airways. It is important to note that airways develop through adolescence.
- Children breathe in more air than adults compared to their body weight, leading to a higher dose of air pollution.
- Children's airways are narrower than adults, making them more susceptible to air pollution.

[11] A linguistically isolated household is defined by the US Census Bureau as a household in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well." In other words, all members 14 years old and over have at least some difficulty with English.

[12] The Hanford and Visalia monitors are "neighborhood scale," which means that they represent conditions throughout some reasonably homogeneous urban subregion, with dimensions of a few kilometers. These data are useful to the understanding and definition of processes that take periods of hours to occur and hence involve considerable mixing and transport. The monitors therefore do not represent source-specific or peak concentrations.

the Hanford site, 50.0 ppb (61% and 50% of the 1-hour NO2 NAAQS, respectively). This indicates that background levels at the monitors closest to the facility are on par with measured levels of NO2 statewide, and that background levels of 1-hour NO2 in the general area surrounding the facility are not disproportionately high as compared with communities elsewhere in the State.

1-Hour NO2 National Ambient Air Quality Standard

EPA periodically conducts comprehensive reviews of the scientific literature on health effects associated with exposure to the criteria air pollutants. The NAAQS are set at a level that protects public health with an adequate margin of safety, including sensitive populations such as children, the elderly, and asthmatics. On January 22, 2010, EPA promulgated a new 1-hour standard for NO2 to provide increased public health protection from short-term NO2 exposures that have been linked to respiratory illnesses that lead to emergency room visits and hospital admissions, particularly in at-risk populations such as children, the elderly, and asthmatics. The standard became effective on April 12, 2010.

Sources of NO2

As noted in the record that accompanied the promulgation of the 1-hour NO2 standard, NO2 is emitted by stationary sources such as utilities, industry and other combustion sources. The largest contributor, however, is motor vehicles, and the greatest concern identified in the review of the NAAQS for NO2 was exposure to short term NO2 spikes associated with motor vehicle emissions. Nationwide, mobile sources account for 61% of NOx emissions. In Kings County, the percentage of NOx emission attributable to mobile sources is 91%.[13] NO2 concentrations on or near major roads are appreciably higher than those measured at monitors in the current network. In-vehicle concentrations can be 2-3 times higher than measured at nearby community-wide monitors and near-roadway concentrations have been measured to be approximately 30 to 100% higher than those measured away from major roads. Individuals who spend time on or near major roads can experience short-term NO2 exposures considerably higher than measured by the current network, which are of particular concern for at-risk populations, including people with asthma, children, and the elderly. As a result, the final NO2 NAAQS required that new monitors be located near roadways in addition to community scale monitors. Final Rule, 75 Fed. Reg. 6474 (Feb. 9, 2010); 40 CFR Part 58, Appendix D, Section 43.

EPA anticipates NOx, including NO2,concentrations, will continue to decrease as a result of state and federal mobile source engine and fuel standards already in effect and being phased in as new vehicles replace older ones. Heavy-duty trucks contributed more than half of the NOx emissions in Kings County in 2010. The new standards for on-road heavy-duty trucks, which were fully effective with the 2007 and 2010 model years, are anticipated to result in NOx emissions reductions of almost 60% from these trucks in Kings County by 2020 (see Appendix

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Reference: EPA's QA Handbook, Volume II, Appendix E (http://www.epa.gov/ttnamti1/files/ambient/pm25/qa/vol2appe.pdf).

[13] ARB, CEPAM-2009 Almanac - 2/6/2011), Appendix 1, Table 1: NOx Emissions Projections - Kings County California.

3). California's in-use truck rule will further reduce emissions from heavy-duty trucks. In addition, new national emissions standards covering many non-road diesel engine categories, including construction and farm equipment, will be fully effective by 2015.

Health Effects Associated with NO2

EPA's ISA concluded that recent studies provided scientific evidence that NO2 is associated with a range of respiratory effects. Specifically, these studies provided evidence sufficient to infer a likely causal relationship between short-term NO2 exposure and adverse effects on the respiratory system.

Evidence from epidemiologic studies shows an association between NO2 exposure and children's hospital admissions, emergency department visits, and calls to doctors for asthma. NO2 exposure is associated with aggravation of asthma, including symptoms, medication use, and lung function. Effects of NO2 on asthma are most evident with a lag of 2-6 days after exposure, rather than same-day levels of NO2. The relationship in children between hospital admissions or emergency department visits for asthma and NO2 exposure holds even after adjusting for co-pollutants such as particulate matter and carbon monoxide.

In addition, the ISA concluded that the available evidence on the effects of short-term exposure to NO2 on cardiovascular health effects is inadequate to infer the presence or absence of a causal relationship at this time. The ISA concluded that the epidemiologic evidence is suggestive but not sufficient to infer a causal relationship of short-term exposure to NO2 with all cause and cardiopulmonary-related mortality[14].

Impacts of NO2 on Susceptible and Vulnerable Populations

The NAAQS are intended to provide an adequate margin of safety for both general populations and sensitive subpopulations, for those subgroups potentially at increased risk for ambient air pollution health effects. The term susceptibility generally encompasses innate or acquired factors that make individuals more likely to experience effects with exposure to pollutants.

As stated in the NO2 ISA at page 4-12:

> Persons with preexisting respiratory disease, children, and older adults may be more susceptible to the effects of NO2 exposure. Individuals in sensitive groups may be

[14] Results from several large U.S. and European multicity studies and a meta-analysis study indicated positive associations between ambient NO2 concentrations and the risk of all-cause (non-accidental) mortality, with effect estimates ranging from 0.5 to 3.6% excess risk in mortality per standardized increment. In general, the NO2 effect estimates were robust to adjust for co-pollutants. Both cardiovascular and respiratory mortality were associated with increased NO2 concentrations in epidemiologic studies; however, similar associations were observed for other pollutants, including PM and SO2. The range of risk estimates for excess mortality was generally smaller than that for other pollutants such as PM. While NO2 exposure, alone or in conjunction with other pollutants, may contribute to increased mortality, evaluation of the specificity of this effect was difficult. U.S. EPA. Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (Final Report), Section 4.3. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-08/071, 2008.
Available at: http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=194645#Download

affected by lower levels of NO2 than the general population or experience a greater impact with the same level of exposure. A number of factors may increase susceptibility to the effects of NO2. Studies generally reported a positive excess risk for asthmatics, and there was emerging evidence that [cardiovascular disease] may cause persons to be more susceptible, though it is difficult to distinguish the effect of NO2 from other traffic pollutants. Children and older adults (65+ years) may be more susceptible than adults, possibly due to physiological changes occurring among these age groups. In addition to intrinsically susceptible groups, a portion of the population may be at increased vulnerability due to higher exposures, generally people living and working near roadways. A considerable fraction of the population resides, works, or attends school near major roadways and likely include a disproportionate number of individuals in groups with higher prevalence of asthma and higher hospitalization rates for asthma (e.g., ethnic or racial minorities and individuals of low socio-economic status). Of this population, those with physiological susceptibility will have even greater risks of health effects related to NO2.

Next Steps for New NO2 Health Standard

The 1-hour NO2 standard became effective on April 12, 2010. As required by the CAA, states will submit recommendations to EPA on which areas do and do not meet the standard, based on air quality monitoring data, and will also identify areas for which sufficient data are not yet available. EPA will review the states' recommendations and finalize designations by January 2012. Concurrently, EPA and the states will enhance the ambient monitoring network to ensure it provides adequate coverage, including for exposure near roadways. This monitoring network is to be in place by January 2013. For areas designated non-attainment, states will be required to develop plans to reduce emissions that are contributing to the high levels, and more stringent new source review will apply. New sources will be required to control emissions to meet the Lowest Achievable Emission Rate and offset any new emissions so that there will be no net increase in emissions in the non-attainment area.

Health Metrics Related to Asthma

The NO2 ISA specifically identifies persons with preexisting respiratory disease as being at increased risk from NO2 related adverse impacts. This section presents data on health metrics in Kings and Fresno Counties in California that may be associated with exposures to NO2.

Respiratory diseases can greatly impair a child's ability to function, and are an important cause of missed school days and limitations to activities. Important respiratory diseases in children include asthma, bronchitis, and upper respiratory infections. In 1994-96, on a national basis, 24 percent of children with asthma had to limit their activities due to their asthma, and the disease caused children to miss 14 million days of school. Studies have shown that outdoor and indoor air pollution causes some respiratory symptoms and increases the frequency or severity of asthma attacks.[15] As noted above, NO2 exposure is associated with aggravation of asthma.

[15] http://www.epa.gov/economics/children/child_illness/ci-background.html

Asthma Disparities and Income

In California as a whole, asthma disparities exist on the basis of race and ethnicity, age, and income. According to the California Breathing (California Department of Public Health) Report: The Burden of Asthma: A Surveillance Report (2007) [16], lower income is associated with more frequent asthma symptoms and higher asthma hospitalization rates, but slightly lower rates of lifetime asthma prevalence. The report states:

> Prevalence of severe symptoms is almost seven times higher among adults with household incomes below $20,000 compared to adults with household incomes over $100,000. The rate of asthma hospitalizations is three times higher among people living in areas where the median income is less than $20,000 compared to people living in areas where the median income is greater than $50,000. Additionally, people with more repeat asthma hospitalizations come from areas with a lower median income.

Hospitalizations and Emergency Department Visits

The tables below compare the age-adjusted rates for asthma hospitalizations and asthma related emergency department visits in Kings and Fresno Counties versus the State of California and are tracked by the California Environmental Health Tracking Program[17].

2009 Asthma Hospitalizations by Race and Ethnicity

The rate of asthma hospitalizations for children in Fresno and Kings Counties aged 0 – 4 is significantly higher than the rate for California as a whole. Hospitalizations due to asthma for non-Hispanic white children age 0 – 4 in California number 19 per 10,000, compared to 42 and 28, respectively, for non-Hispanic white children in Fresno and Kings Counties. Hospitalizations due to asthma for African-American children age 0 – 4 in California number 55 per 10,000, compared to 75 for African-American children in the same age group in Fresno County (data not available for Kings County). Hospitalizations due to asthma for Latino children age 0 – 4 in California number 21 per 10,000, compared to and 45 and 29 (similar to non-Hispanic white children) for Latino children in Fresno and Kings Counties, respectively.

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[16] http://www.californiabreathing.org/phocadownload/asthmaburdenreport.pdf

[17] The California Environmental Health Tracking Program provides data for two asthma indicators: asthma hospitalizations and asthma-related emergency department visits. A careful evaluation of asthma in a particular community requires review of both asthma-related emergency department (ED) visits and asthma-related hospital admissions because when a patient goes to the emergency room with asthma, sometimes they are treated in the emergency department and discharged and sometimes they are admitted to the hospital. An asthma-related hospital admission is identified by looking at hospitalization data and selecting the admissions that had an asthma diagnosis. Hospitalization represents people with severe asthma who end up being hospitalized for their asthma. An asthma-related emergency department (ED) visit is measured by examining hospital records on ED visits and identifying the visits that had an asthma diagnosis. Some ED visits may result in a hospitalization. Emergency department visits represent people with asthma who end up at the emergency department (ED) or utilize urgent care services for treatment of asthma symptoms. This may be because they have been unable to manage their asthma properly or they lack access to a primary health care provider. California Environmental Health Tracking Program, http://www.ehib.org/project.jsp?project_key=ehss01

Age Adj Rate, per 10,000 persons 2009[b]	Total		Black		Hispanic[a]		White		Asian/ Pacific Islander	
	All Ages	Children[c]	All Ages	Children[c]	All Ages	Children[c]	All Ages	Children[c]	All Ages	Children[c]
U.S.	Comparable national data for emergency department visits are not readily available, however the *California Breathing Report* notes that California hospitalization rates are consistently around 1.5 times lower than overall U.S. rates.									
CA	9.42	22.71	29.65	55.38	9.31	20.82	7.90	19.15	6.56	17.73
Fresno County	12.5[d]	49.34[d]	31.91	75.48	11.44[d]	45.28[d]	11.60[d]	42.47[d]	8.91[d]	48.79[d]
Kings County	10.78[d]	31.22[d]	18.54	NA	12.77[d]	29.56[d]	8.93[d]	28.17[d]	NA	NA

a. Includes Puerto Ricans
b. 2009 Data, from California Environmental Health Tracking Program, http://www.ehib.org/
c. Children 0-4 years old
d. This rate is statistically significantly higher than the rate for the State of California for the same ethnic/age group

2009 Asthma Emergency Department Visits by Race and Ethnicity

For asthma-related Emergency Department visits, the rates for Fresno and Kings Counties are higher than the rate for the State of California, and the difference is statistically significant when compared across any of the following: the entire population, the Latino population, children under 4, and adults aged 65 and older. Latino children age 0 – 4 in Fresno and Kings Counties, as compared to all Latino children age 0-4 in the State of California have almost double the rate of emergency department visits: 200 and 193, respectively, per 10,000, versus 107. For African–American children in the same age group, the difference is similarly striking: 409 and 536 for Fresno and Kings Counties, respectively, per 10,000 visits, versus 333 for all African American children age 0-4 in the State.

Age Adj Rate, per 10,000 persons 2009[b]	Total		Black		Hispanic[a]		White		Asian/ Pacific Islander	
	All Ages	Children[c]	All Ages	Children[c]	All Ages	Children[c]	All Ages	Children[c]	All Ages	Children[c]
U.S.	Comparable national data for emergency department visits are not readily available.									
CA	47.99	109.92	163.05	332.95	44.53	107.66	40.36	79.52	18.68	50.93
Fresno County	68.04[d]	216.14[d]	180.02[d]	409.06[d]	61.62[d]	200.06[d]	65.90[d]	167.17[d]	25.44[d]	123.86[d]
Kings County	71.24[d]	196.01[d]	146.99	536.51[d]	73.28[d]	193.35[d]	61.98[d]	133.80[d]	NA	NA
Avenal	26.3[e]	NA	NA	NA	NA	NA	NA	NA	NA	NA

Kettle-man City	35.75[e]	NA	NA	NA	NA	NA	NA	NA	NA	NA

a. Includes Puerto Ricans
b. 2009 Data, from California Environmental Health Tracking Program, http://www.ehib.org/
c. Children 0-4 years old
d. This rate is higher than the rate for the State of California for the same ethnic/age group.
e. Data from 2005-2007 California Office of Statewide Health Planning and Development (OSHPD) Patient ED Database. Numerator for rates is ED visits with a principal diagnosis using ICD-9 code 493. Denominator for Kettleman City and Avenal rates is the estimated number of residents from the ESRI Community Sourcebook of Zip Code Demographics.[18]

Asthma Prevalence in Kings and Fresno Counties

Data from the California Department of Public Health's "California Breathing" program are based on 2007 information. These data show a lifetime prevalence of 24% among Kings County children age 0-17, second highest in the State, and a prevalence of 19.2% for Fresno County, as compared to the statewide prevalence for the same age group of 15.4%[19]. In addition, according to the Kings County Health Status Report,[20] asthma prevalence has been increasing in recent years.

2007 Lifetime Asthma Prevalence by Race and Ethnicity

In Percents	**Total**		**Black**		**Hispanic[a]**		**White**		**Asian/ Pacific Islander**		**Family Income Below Poverty Level**	
	All Ages	Children[b]	All Ages	Children	All Ages	Children	All Ages	Children	All Ages	Children	All Ages	Children
U.S.[c]	11.5	13.1	13.2	19.7	10.2	12.6	11.5	11.2	Comparable data not available		14.4	15.7
CA[d]	13.6[f]	15.4[f]	18.2	25.9[e]	10.7	13[e]	14.1	20[e]	9.9	17[e]	11.9	NA

[18]Of the three population centers within the project area, data for two of the areas, Kettleman City and Avenal, are available as the result of a study conducted by the California Environmental Protection Agency and the California Department of Public Health (DPH). Although the asthma ED visit rate appears lower for Avenal and Kettleman City as compared with the SJV and California rates, because the population in these two areas is relatively small (15,000 and 1620 respectively) there is a high degree of variability in these rates. It is important to note that the study reached the conclusion that for most of the health metrics examined, Kettleman City was not appreciably different than any other community in the Valley. The Department of Public Health did note, however, an excess in the number of children with birth defects born to mothers who had lived in Kettleman City. Investigation of Birth Defects and Community Exposures in Kettleman City, California, California EPA and California Department of Public Health, page 60, December 2010. Available at http://www.calepa.ca.gov/envjustice/Documents/2010/KCDocs/ReportFinal/FinalReport.pdf

[19] http://www.californiabreathing.org/asthma-data/county-comparisons/lifetime-asthma-prevalence-children-2007

[20] http://www.countyofkings.com/health/forms/Community%20Health%20Status%20Report%202008-2009.pdf (page 34)

In Percents	Total		Black	Hispanic[a]	White	Asian/ Pacific Islander	Family Income Below Poverty Level
Fresno County[f]	18.3[g]	19.2[g]	Prevalence data are not available at the county level by racial / ethnic population.				
Kings County[f]	17.9	24.0[g]	Prevalence data are not available at the county level by racial / ethnic population.				

a. Includes Puerto Ricans (National asthma prevalence of 20.3% for all ages, 17.8% for children)
b. Children <18 years old
c. 2007 CDC data, available at: http://www.cdc.gov/asthma/nhis/07/table2-1.htm
d. California Breathing (California Department of Public Health) Report: The Burden of Asthma: A Surveillance Report (2007), based on 2003 data, except where noted
e. Data available only for adolescents. Prevalence among all CA adolescents is 18%.
f. County Comparisons based on 2007 data from California Department of Public Health, California Breathing program. Available at: http://www.californiabreathing.org/
g. The prevalence is statistically significantly higher than the rate for the State of California for the same ethnic/age group.

Access to Health Care in Kings and Fresno Counties

Medically Underserved Areas or Populations have been designated in portions of all eight San Joaquin Valley counties, including Kings and Fresno Counties[21]. According to California Health Interview Survey (CHIS) data, 16.4% of the Kings County population and 14.2% of the Fresno County population was not insured as of the date of the last survey (2007) compared to 13.2% of the entire California population surveyed.[22]

Health Impacts Associated with Air Pollution in the Area

The San Joaquin Valley, which includes Kings County, is an extreme ozone non-attainment area with some of the highest levels of PM2.5 in the country. The poor air quality creates an adverse health impact for all its residents. Children, people older than 65, and minorities living in Kings and nearby Fresno County suffer from higher rates of asthma-related hospitalizations and emergency department visits than similar groups living elsewhere in the State. The residents living within 25 km of the proposed project are disproportionately low income and minority compared with the rest of the State. While we have only county-level statistics, we anticipate that these statistics would also represent local conditions.

[21] http://hpsafind.hrsa.gov/
[22] http://www.askchis.com/

Impact of Project's Emissions on the NAAQS Applicable to the PSD Permit Application

The first part of EPA's environmental justice analysis concerns the potential effects on minority or low income populations from emissions that may affect the NAAQS EPA proposes to apply to this permit application. Those are emissions affecting the NAAQS for NO2 (annual average), CO (1-hr and 8-hr average), and PM10 (24-hr average and annual). As noted earlier, since the potential emissions of the Project are below significance levels for SO2, the project is not expected to have a significant impact on the applicable SO2 NAAQS.

EPA has determined from the modeled results for the facility that the Project impacts are well below (in all cases, less than 6% of) the applicable NAAQS for the PSD pollutants regulated under the PSD permit, including the annual NO2 standard. The modeled impact of NO2 for the annual averaging period is 0.5 $\mu g/m^3$, less than 1% of the NAAQS of 100 $\mu g/m^3$. The modeled PM10 impact (24-hour averaging period) is 2.9 $\mu g/m^3$, approximately 2% of the PM10 24-hour NAAQS of 150 $\mu g/m^3$. The modeled CO impact for the 8-hour averaging period is 337 µg/m3, less than 4% of the NAAQS of 10,000 $\mu g/m^3$, and the modeled CO impact for the 1-hour averaging period is 2,175 $\mu g/m^3$, less than 6% of the NAAQS of 40,000 $\mu g/m^3$. As stated elsewhere, the NAAQS are health based standards and are designed to protect public health with an adequate margin of safety, including sensitive populations. Taking into account these modeled results in light of the health-based nature of the applicable NAAQS, EPA has determined that proposed emissions limits for these pollutants will not result in disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

Review of Modeled Short-Term NO2 Impacts from Avenal Energy Project's Emissions

The second part of EPA's environmental justice analysis for this permit concerns the short-term impacts of NO2. For the reasons stated in the Revised Statement of Basis, EPA is proposing to grandfather the Project from demonstrating that this source will not cause or contribute to a violation of the recently promulgated 1-hour NO2 NAAQS. EPA nevertheless is performing an analysis of impacts from short-term NO2 concentrations because the Agency recently determined that the annual NO2 standard alone is not sufficient to protect public health with an adequate margin of safety against adverse respiratory effects associated with short-term exposures to NO2. Final Rule, 75 Fed. Reg. 6474 (Feb. 9, 2010). We note that because emissions of SO2 from the project are below significance levels and thus have no more than a de minimis impact, we do not anticipate any significant or disproportionate impacts associated with these emissions. Therefore, further analysis of short-term impacts on SO2 is not necessary.

The Agency currently has limited data as to the impacts of NO2 emissions from the project or existing sources on the communities of interest. As previously discussed, there is limited hourly NO2 monitoring data in California from EPA-approved monitoring network sites, and the closest monitoring sites are 28 miles and 46 miles from the proposed Project. The limited data indicate that background levels at the monitors closest to the facility are on par with measured levels of NO2 statewide, and that background levels of 1-hour NO2 in the general area

surrounding the facility are not disproportionately high as compared with communities elsewhere in the State.

In addition, the District conducted an assessment of the 1-hour NO2 emissions from the Project on June 14, 2010.[23] The results of this analysis indicate that the operational emissions from the facility result in a maximum 1-hour NO2 impact of 82.43 µg/m^3 (44 ppb), which represents 44% of the standard (188 µg/m^3 or 100 ppb). This value represents the highest modeled impact at any location resulting from the facility's emissions alone; all other locations would have a lower impact from the facility. The modeled impact is based on the average of the five yearly maximum 8th high values, consistent with EPA's *Notice Regarding Modeling for New Hourly NO2 NAAQS, Updated - 02/25/2010,* which discusses procedures for calculating NO2 modeled values suitable for comparison to the 1-hour NO2 NAAQS.[24]

This is the best information available to EPA at this time regarding the potential impacts of the facility's NO2 emissions on short-term NO2 levels. We do not have an acceptable analysis prepared for PSD purposes that provides a detailed comparison of the facility's emissions, as well as background and nearby sources, with the 1-hour NO2 NAAQS.

In light of the limited data available, EPA cannot reach any definitive conclusion about the specific human health or environmental impacts of short-term exposure to NO2 emissions from the facility on minority and low-income populations.

Emissions of Pollutants for Which Area Exceeds Air Quality Standards

The California Energy Commission analyzed environmental justice considerations before approval of Avenal's Application for Certification. Final Commission Decision, Application for Certification (08-AFC-1), pp. 328-332 (December 2009). The Commission concluded based on the evidentiary record that the fully mitigated project would not result in any significant adverse environmental or public health impacts to any population, including farm workers in the region. Id. at 331. EPA presents here a summary of the State's environmental justice analysis, as set forth in the Final Commission Decision, in order to provide further information about the

[23] See Memorandum of June 14, 2010 to Derek Fukuda, AQE-Permit Services, from Leland Villalvazo. SAQS-Technical Services, Subject: Revised NO2 1-hour NAAQA Assessment for Avenal Power Center. This memorandum was prepared in support of the Revised Preliminary Determination of Compliance Evaluation for the Avenal Power Center Project, which proposed to limit the annual facility wide NOx and CO emissions for the source, resulting in a minor source permit for PSD purposes. However, as noted in EPA Comments on Project Number C-II00751 for Avenal Power Center LLC (08-AFC-Ol), September 13, 2010, the equipment emitting NOx from both the major and minor source project configurations would have the same permitted 1-hour emission rates, and therefore, the modeled short-term 1-hour NO2 impacts of the major source Project's emissions would be identical to that of the minor source project under consideration in the SJVAPCD's minor source permitting process.

[24] EPA's *Notice Regarding Modeling for New Hourly NO2 NAAQS, Updated - 02/25/2010*, states, in its discussion regarding procedures for calculating the NO2 design value for comparison to the 1-hour NAAQS: "The highest of the average 8th-highest (98th-percentile) concentrations across all receptors, based on the length of the meteorological data period, represents the modeled 1-hour NO2 design value based on the form of the standard." The District's analysis was based on five years of meteorological data (2004-2008). Therefore, the modeled 1-hour NO2 design value based on the form of the standard in this case would be the average 8th- highest (98th-percentile) based on the average of 5 years data.

potential air quality impacts of the Project.[25] With respect to air quality impacts, the Commission found that the combination of emissions controls and offsetting emission reductions would mitigate all project air quality impacts to a less than a significant level. Id. at 127. The CEC considered modeling that predicted maximum impacts of the facility on PM2.5 concentrations of 2.9 $\mu g/m^3$, which is approximately 8 percent of the 35 $\mu g/m^3$ National Air Quality Standard for PM2.5 concentrations averaged over a 24 hour period. This same modeling predicted maximum impacts on annual PM2.5 concentrations of 0.8 $\mu g/m^3$ which are approximately 6.5 percent of California's 12 $\mu g/m^3$ air quality standard.[26] Pre-existing background concentrations of PM2.5 in the non-attainment area are as high as 75 $\mu g/m^3$ over a 24-hour period and up to 18.4 $\mu g/m^3$ on an annual basis. Id. at 123.[27]

EPA is working with the California Air Resources Board (ARB) and the District to ensure that there is a comprehensive plan with adequate controls for attaining the annual and 65 $\mu g/m^3$ 24-hour PM2.5 ambient air quality standards by the Clean Air Act's deadline of 2015. See EPA's proposed action on the 2008 San Joaquin Valley PM2.5 plan at 75 FR 74518 (November 30, 2010) We will also be working closely with both agencies to develop a plan to meet the 35 $\mu g/m^3$ 24-hour standard, which is due to EPA in late 2012.

Since NOx is a precursor to ozone formation, the District required the Project to supply NOx offsets at a 1.5 to 1 ratio to mitigate NOx emissions from the facility. Because ozone formation is not localized, ozone and ozone precursors are considered area or basin-wide pollutants. While the NOx offsets provided by the applicant for this source were generated within the ozone non-attainment area, they were not required to be near the source. (The closest offsets to the facility were generated between 12 and 20 miles away.) The impacts of NO2, on the other hand, can be localized in nature. NOx offsets within the broader non-attainment area will have a mitigating effect on ozone formation within the non-attainment area, but they will not serve to mitigate any localized impacts of NO2 and therefore do not add meaningfully to EPA's analysis of potential NO2 impacts on the local communities. We should note that there may be some co-benefits for local areas from the NOx emissions reductions used for the project. However, we do not have data showing what these potential co-benefits might be.

[25] As previously mentioned, EPA has not yet commenced its investigation into the Title VI complaint's allegation that operation of the proposed Avenal power plant will result in adverse health impacts on the residents of color of Avenal and Kettleman City.

[26] The federal primary National Ambient Air Quality Standard for PM2.5 for the annual averaging period is 15.0 $\mu g/m^3$.

[27] The PM-2.5 values in the CEC report reflect data from the Bakersfield monitor, located approximately 80 miles southeast of the Avenal Energy Project. The Corcoran monitor, located within 28 miles east of the Project, reports 49 µg/m3 24-hour and 17.3 µg/m3 annual design value concentrations. See EPA's Air Quality System, http://www.epa.gov/ttn/airs/airsaqs/.

Conclusion

As explained above, with respect to all pollutants, including those not attaining the NAAQS in the affected area, the California Energy Commission found that the combination of emissions controls and offsetting emission reductions would mitigate all project air quality impacts to a less than a significant level. EPA's own analysis indicates that this project will not cause or contribute to air quality levels in excess of health standards for SO2, CO, PM10 and the annual NO2 standard and that there will not be disproportionately high and adverse human health or environmental effects with respect to these air pollutants on minority or low-income populations residing near the proposed project or the community as a whole. While EPA has no information indicating that short-term NO2 emissions from the project will negatively impact minority and low-income populations in the vicinity, it is difficult to speak definitively to this point due to the limitations of the available data.

Accordingly, EPA requests any additional information that might further inform the Agency's environmental justice analysis. EPA also requests public comment on this issue generally, but particularly in relation to the topics addressed below.

In light of the existing conditions in the local communities where this source proposes to construct, EPA intends to place an ambient NO2 monitor in an appropriate location in the vicinity of the proposed source to gather more information about the local NO2 concentrations. In EPA's recent NO2 monitoring rule that was part of the action to complete the 1-hour NO2 NAAQS, EPA specifically set aside up to 40 monitors to be sited in areas with minority and low income populations at the discretion of EPA Regional Administrators. Thus, the Agency has the discretion to place an air quality monitor in an appropriate location to develop air quality information for the Region and also to help assess air quality before and after operation of the Avenal plant. This monitor, along with other NO2 monitors that exist or may be sited in the San Joaquin Valley Air District, will be used by the ARB, the District and EPA to determine whether air quality in the region meets or exceeds the NAAQS for NO2, and will inform governmental plans to address any identified concerns. Any such plans would consider all contributing sources in the airshed, including the Avenal facility, in the effort to address any identified non-attainment challenges. EPA welcomes public comment on its intentions in this regard.

In the event that EPA were to gather air quality monitoring data that identify a concern in the local community from short-term NO2 emissions, EPA is considering options that EPA, ARB or the District might employ to mitigate such concerns. For example, EPA may have the option to direct federal funds to the local area to address sources of NO2 and provide for effective emissions reductions. In addition, the data from monitoring might be used to better inform measures that the ARB or the District could take (or might be required to take) to ensure attainment and maintenance of the 1-hour NO2 NAAQS. Indeed, if monitoring were to identify violations of the 1-hour NO2 NAAQS, the State would need to address those issues through the

mandated attainment planning process to identify and implement measures to reduce NO2 sufficiently to assure air quality that meets the applicable standard. EPA requests public comment on the merits of such approaches.

EPA also requests comments on whether there are any conditions that should be included in the permit in response to these concerns. For example, because this area includes complex terrain and characterization of NO2 issues in that area can be challenging, EPA requests comment on considering establishing a condition in the permit that would require the applicant to monitor air quality conditions after construction of the facility. This monitoring, in coordination with the community-based NO2 monitor, could help provide better characterization of the NO2 concentrations in the area. Under section 52.21(m)(2) of EPA's regulations, EPA can require the permit applicant to conduct ambient monitoring "after construction of the stationary source … as the Administrator determines is necessary to determine the effect emissions from the stationary source … may have, or are having, on air quality in any area."

Regina McCarthy
Assistant Administrator for Air and Radiation

APPENDIX 1 – Demographic Maps for Avenal Energy Project EJ Analysis Project Impact Area

Figure 1 - Project Site and Population Density

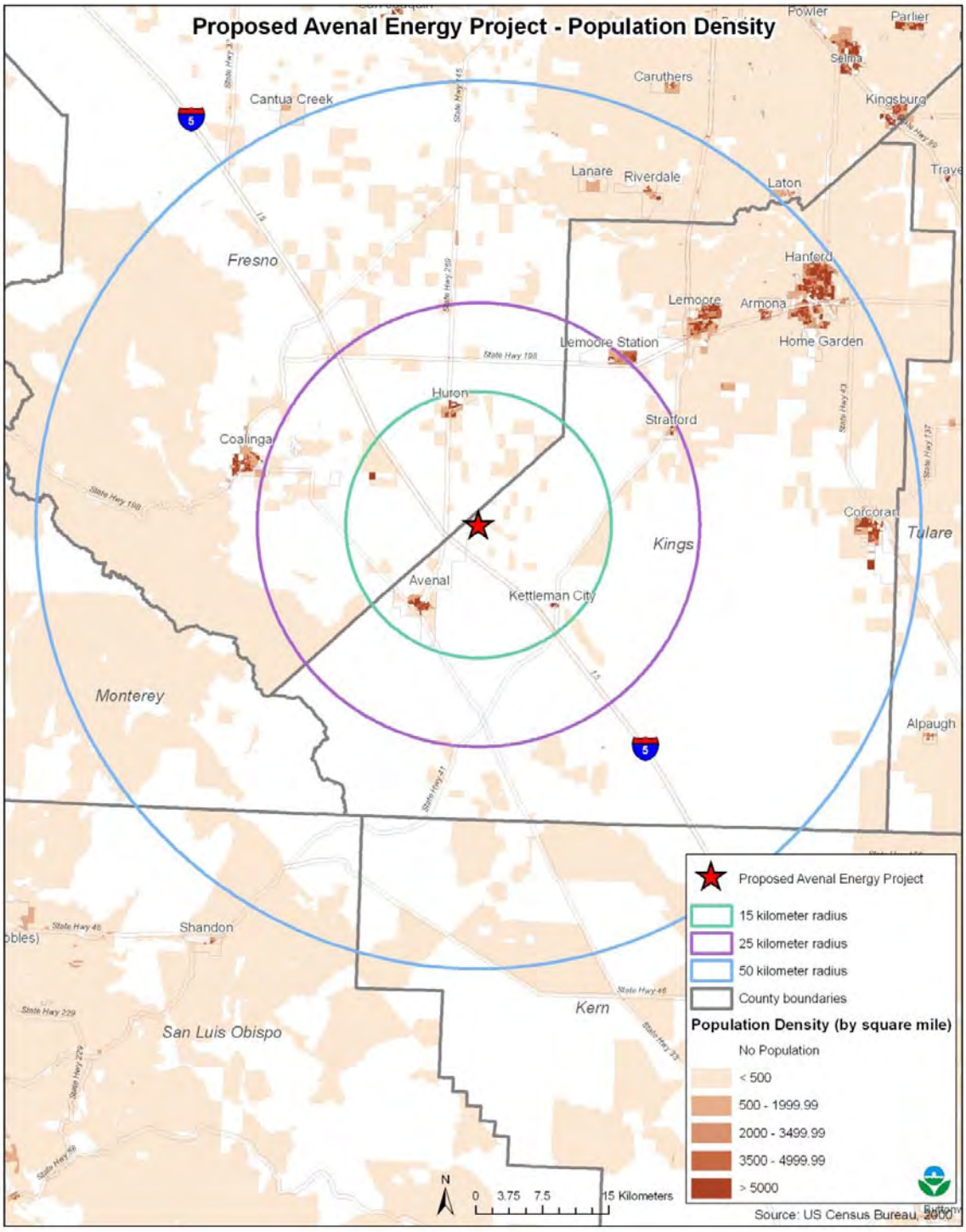
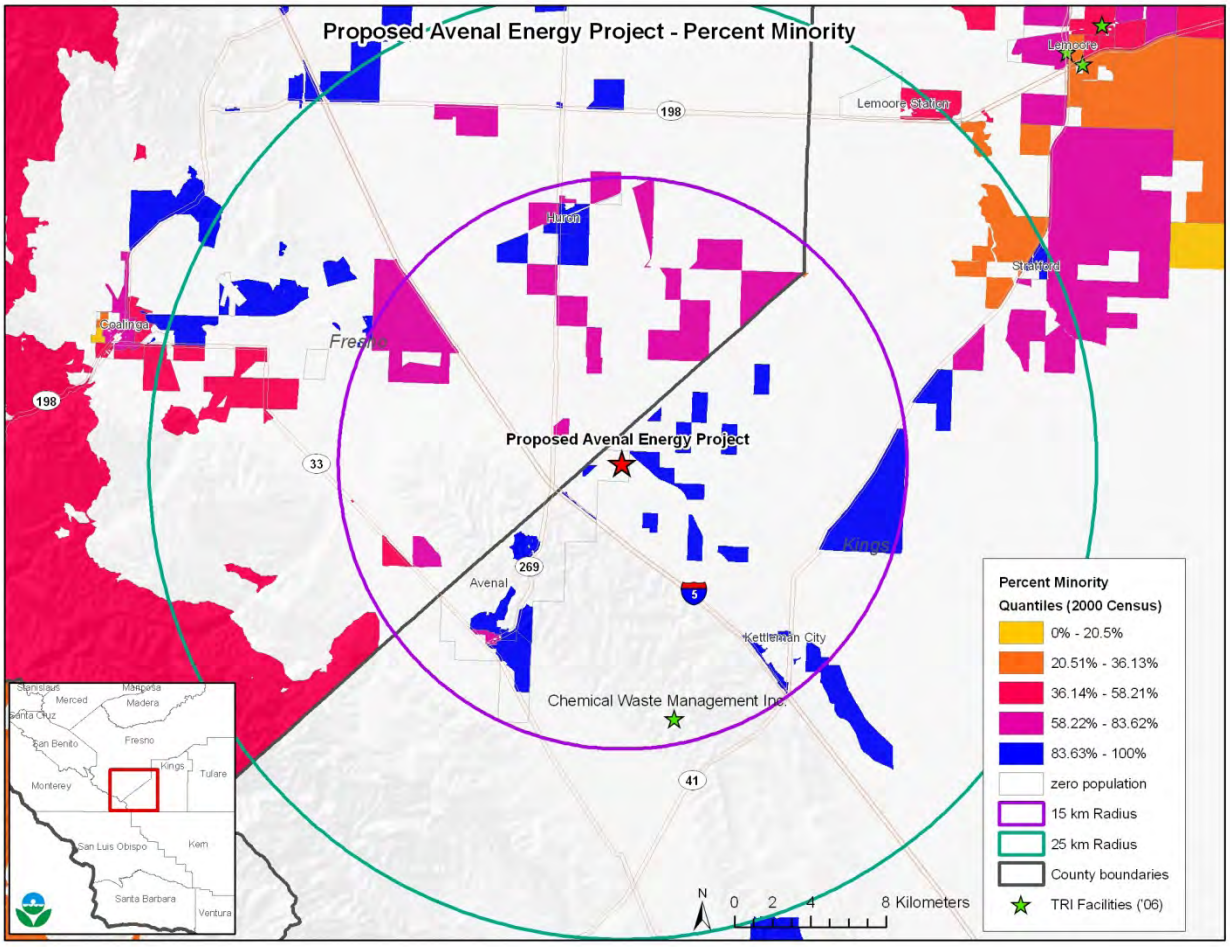
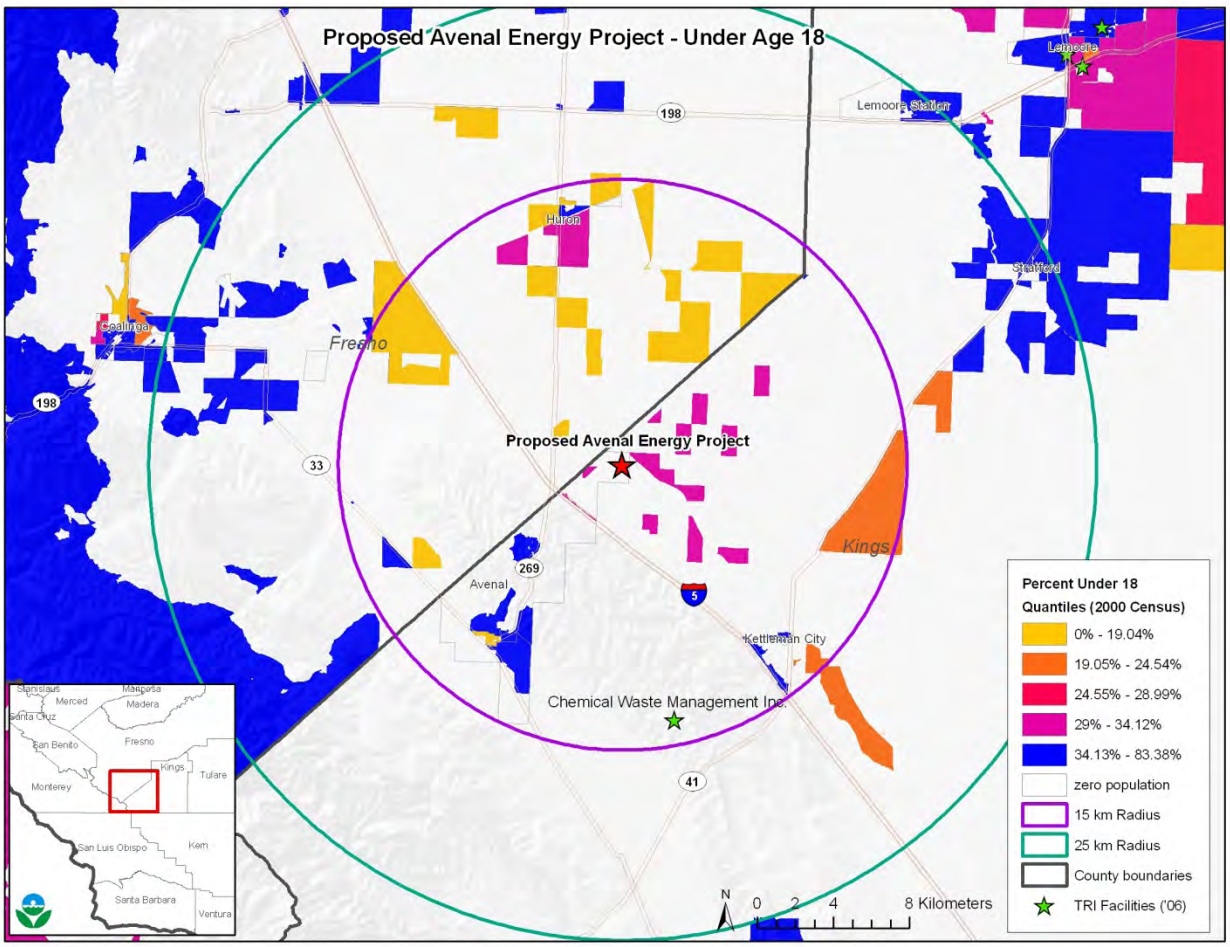


Figure 2 – Percent Minority



Radius, km	Population	Percent Minority	Percent Under Age 18	Percent Over Age 64	Percent Linguistically Isolated	Percent w/o High School Diploma	Average Median Household Income, $
15	25,660	85	24	3	34	51	27,221
25	32,244	82	25	3	30	50	27,771
50	162,723	62	29	7	11	35	36,843
Kings County	129,461	59	29	7	9	31	35,749
Fresno County	799,407	60	32	10	10	32	34,725
San Joaquin Valley	3,182,529	55	33	10	9	33	38,162
State of CA	33,871,648	53	27	11	10	23	47,493
Source: US Census 2000, Summary Tape File 3							

Figure 3 - Percent Under Age 18



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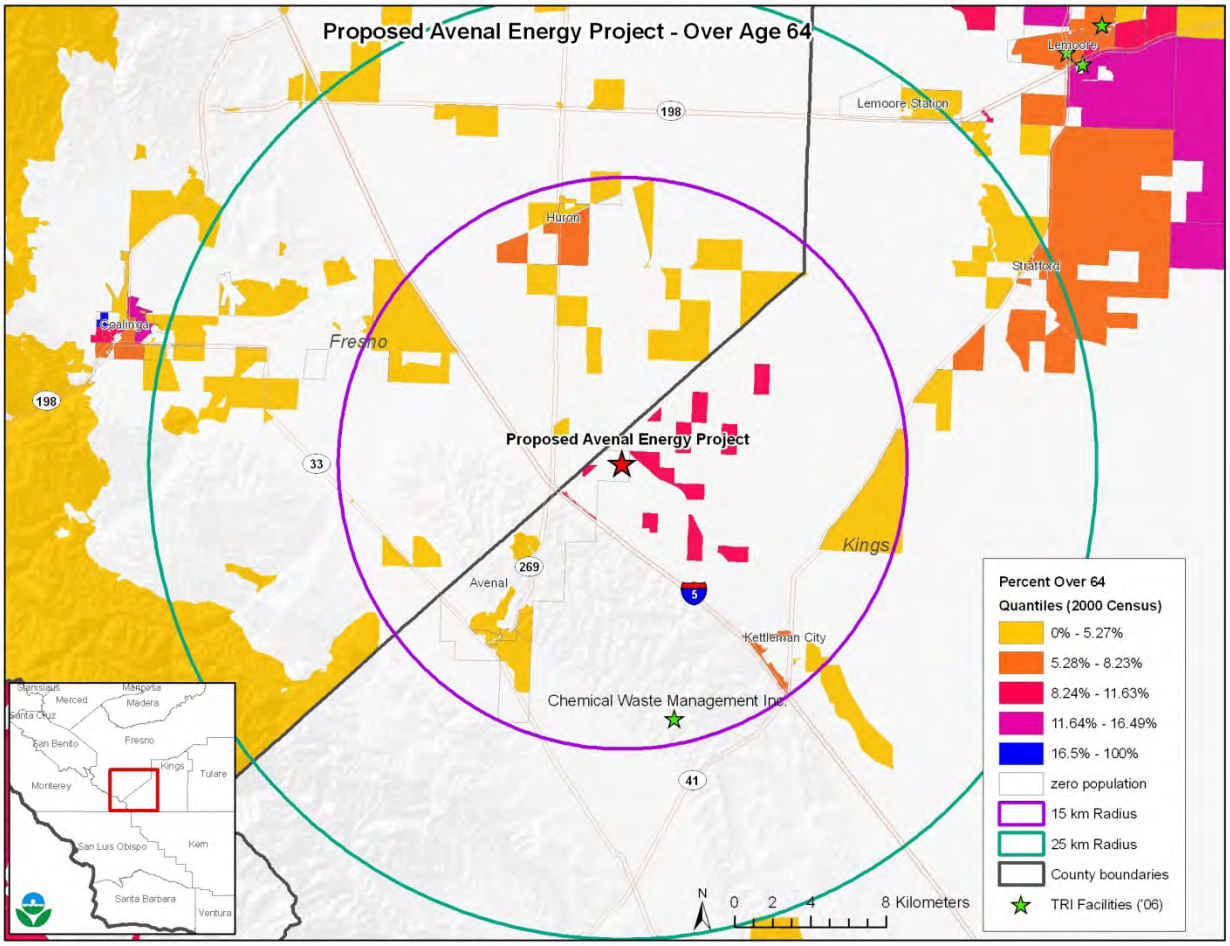
State of CA	33,871,648	53	27	11	10	23	47,493
Source: US Census 2000, Summary Tape File 3							

Figure 4 - Percent Over Age 64



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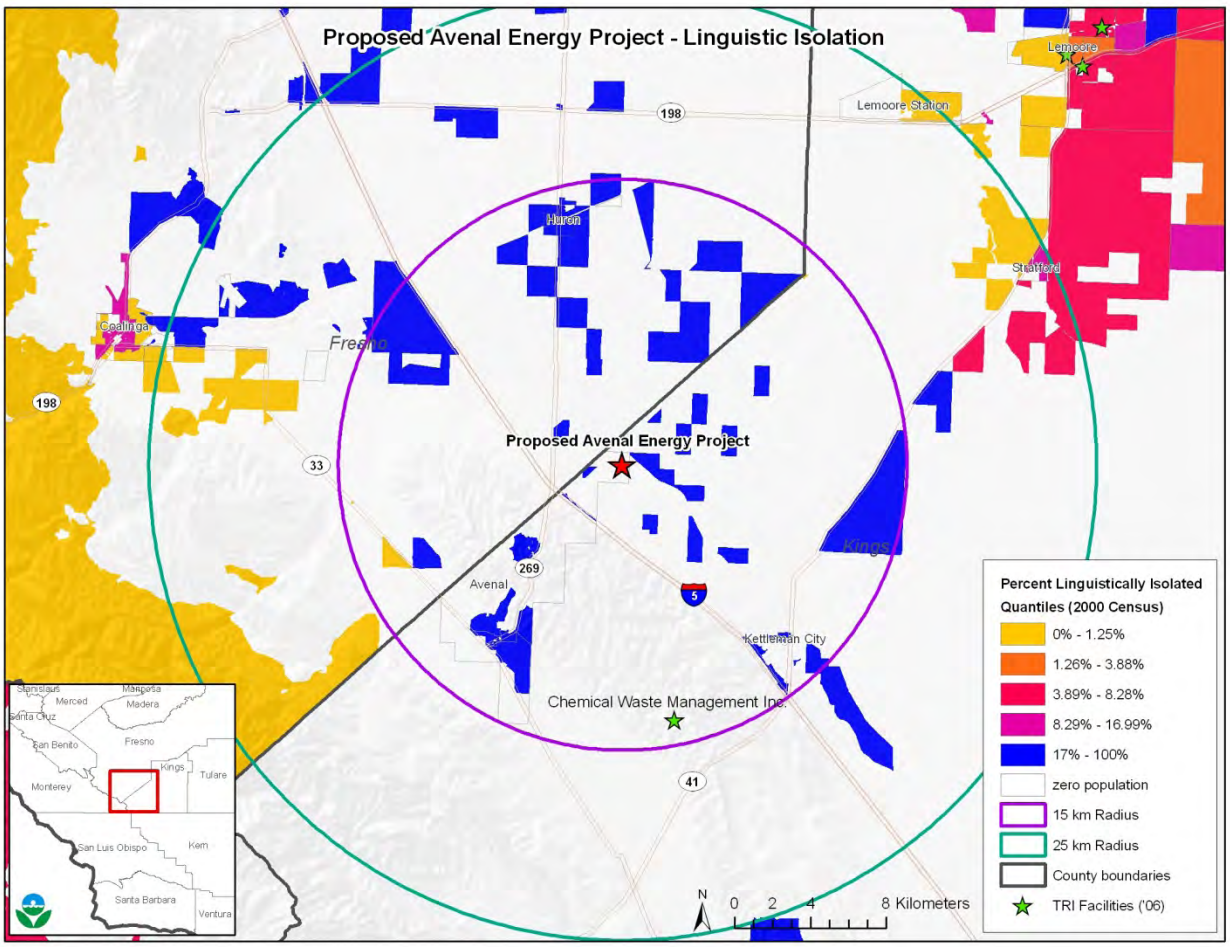
State of CA	33,871,648	53	27	11	10	23	47,493
Source: US Census 2000, Summary Tape File 3							

Figure 5 - Percent Linguistically Isolated



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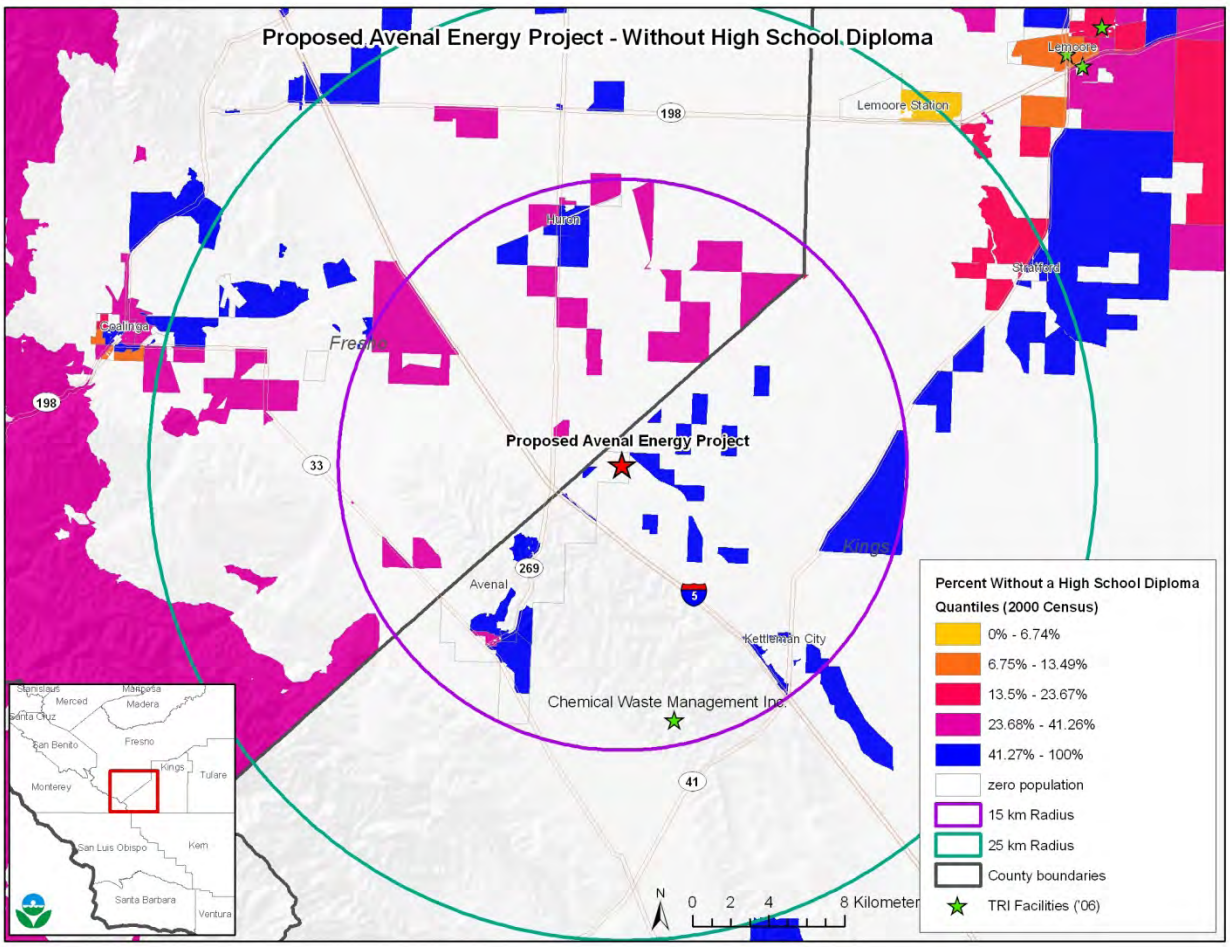
State of CA	33,871,648	53	27	11	10	23	47,493
Source: US Census 2000, Summary Tape File 3							

Figure 6 - Percent Age Over 25 without High School Diploma



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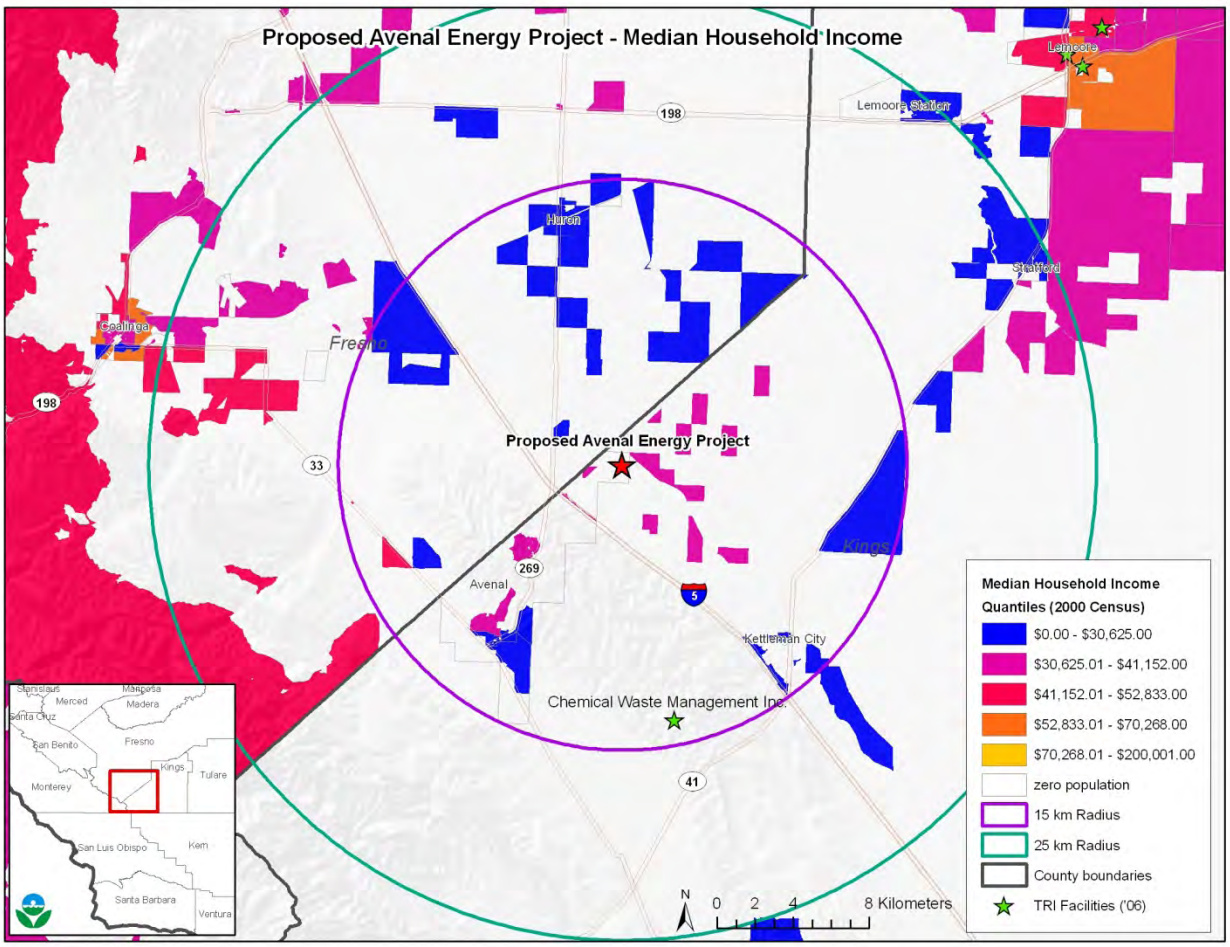
State of CA	33,871,648	53	27	11	10	23	47,493
Source: US Census 2000, Summary Tape File 3							

Figure 7 - Median Household Income



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San Joaquin Valley	3,182,529	55	33	10	9	33	38,162
State of CA	33,871,648	53	27	11	10	23	47,493
Source: US Census 2000, Summary Tape File 3							

Appendix 2

Monitored Hourly NO_2 Values in California (2006-2009)*

Monitor ID	Street Address	City Name	County Name	One Hour NO_2 Design Value (ppb)
06-001-0007-42602-1	793 RINCON AVE.	Livermore	Alameda	47.3
06-001-0009-42602-1	9925 International Blvd.	Oakland	Alameda	51.6
06-001-0011-42602-1	1100 21st Street	Oakland	Alameda	47.0
06-001-1001-42602-1	40733 CHAPEL WAY.	Fremont	Alameda	47.0
06-001-2004-42602-1	1340 Sixth Street	Berkeley	Alameda	45.0
06-007-0002-42602-1	468 MANZANITA AVE.	Chico	Butte	38.0
06-013-0002-42602-1	2956-A TREAT BOULEVARD	Concord	Contra Costa	36.6
06-013-1002-42602-1	5551 BETHEL ISLAND RD.	Bethel Island	Contra Costa	31.0
06-013-1004-42602-1	1865 D RUMRILL BLVD	San Pablo	Contra Costa	41.6
06-013-3001-42602-1	583 W. 10TH ST.	Pittsburg	Contra Costa	44.0
06-019-0007-42602-1	4706 E. DRUMMOND ST.	Fresno	Fresno	61.0
06-019-0008-42602-1	3425 N FIRST ST.	Fresno	Fresno	56.6
06-019-0242-42602-1	SIERRA SKYPARK#2-BLYTHE & CHNNLT	Fresno	Fresno	39.6
06-019-4001-42602-1	9240 S. RIVERBEND.	Parlier	Fresno	39.3
06-019-5001-42602-1	908 N VILLA AVE.	Clovis	Fresno	55.6
06-023-1004-42602-1	717 SOUTH AVENUE	Eureka	Humboldt	22.3
06-025-0005-42602-1	1029 ETHEL ST, CALEXICO HIGH SCHOOL	Calexico	Imperial	72.3
06-025-0006-42602-1	CALEXICO - EAST	Calexico	Imperial	70.6
06-025-1003-42602-1	150 9TH ST.	El Centro	Imperial	50.3
06-029-0007-42602-1	JOHNSON FARM.	Edison	Kern	40.0
06-029-0010-42602-1	1128 GOLDEN STATE HIGHWAY	Bakersfield	Kern	60.0
06-029-0014-42602-1	5558 CALIFORNIA AVE.	Bakersfield	Kern	61.0
06-029-5001-42602-1	20401 BEAR MTN BLVD, ARVIN, CA.	Arvin	Kern	31.6
06-029-6001-42602-1	548 WALKER ST.	Shafter	Kern	53.3
06-031-1004-42602-1	807 SOUTH IRWIN ST.	Hanford	Kings	50.0
06-037-0002-42602-2	803 N. LOREN AVE.	Azusa	Los Angeles	78.3
06-037-0016-42602-1	840 LAUREL	Glendora	Los Angeles	69.6
06-037-0113-42602-1	VA HOSPITAL	West Los Angeles	Los Angeles	63.3
06-037-1002-42602-2	228 W. PALM AVE.	Burbank	Los Angeles	75.3
06-037-1103-42602-1	1630 N MAIN ST.	Los Angeles	Los Angeles	81.3
06-037-1201-42602-2	18330 GAULT ST., RESEDA	Reseda	Los Angeles	59.6

Monitor ID	Street Address	City Name	County Name	One Hour NO_2 Design Value (ppb)
06-037-1301-42602-2	11220 LONG BEACH BLVD.	Lynwood	Los Angeles	76.5
06-037-1302-42602-1	700 North Bullis Road	Compton	Los Angeles	85.5
06-037-1602-42602-1	4144 SAN GABRIEL RIVER PKWY.	Pico Rivera	Los Angeles	83.0
06-037-1701-42602-2	924 N. GAREY AVE.	Pomona	Los Angeles	81.0
06-037-2005-42602-1	752 S. WILSON AVE.	Pasadena	Los Angeles	69.6
06-037-4002-42602-2	3648 N. LONG BEACH BLVD.	Long Beach	Los Angeles	78.3
06-037-5005-42602-1	7201 W. WESTCHESTER PARKWAY	Los Angeles	Los Angeles	71.3
06-037-6012-42602-1	22224 PLACERITA CANYON RD.	Santa Clarita	Los Angeles	57.3
06-037-9033-42602-1	43301 DIVISION ST.	Lancaster	Los Angeles	53.3
06-039-0004-42602-1	RD. 29 1/2 NO. OF AVE 8	Madera	Madera	40.3
06-041-0001-42602-1	534 4TH ST.	San Rafael	Marin	44.6
06-043-0003-42602-1	TURTLEBACK DOME	Yosemite National Park	Mariposa	5.1
06-045-0008-42602-1	306 E. GOBBI STREET	Ukiah	Mendocino	32.3
06-045-0009-42602-1	899 SO MAIN STREET	Willits	Mendocino	26.5
06-047-0003-42602-1	385 S. COFFEE AVENUE	Merced	Merced	43.3
06-053-1003-42602-1	867 E. LAUREL Dr	Salinas	Monterey	34.3
06-055-0003-42602-1	2552 JEFFERSON AVE.	Napa	Napa	39.3
06-057-0005-42602-1	200 LITTON DR.	Grass Valley	Nevada	26.0
06-059-0007-42602-5	1630 W. PAMPAS LANE	Anaheim	Orange	65.3
06-059-1003-42602-1	2850 MESA VERDE DR. EAST	Costa Mesa	Orange	60.3
06-059-5001-42602-2	621 W. LAMBERT	La Habra	Orange	69.0
06-061-0006-42602-1	151 NO SUNRISE BLVD.	Roseville	Placer	53.0
06-065-0004-42602-1	10551 Bellegrave	Mira Loma	Riverside	73.0
06-065-0012-42602-1	200 S. HATHAWAY ST.	Banning	Riverside	58.3
06-065-1003-42602-3	7002 MAGNOLIA AVE.	Riverside	Riverside	63.5
06-065-5001-42602-2	FS-590 RACQUET CLUB AVE.	Palm Springs	Riverside	45.0
06-065-8001-42602-2	5888 MISSION BLVD.	Rubidoux	Riverside	63.0
06-065-8005-42602-1	5130 POINSETTIA PLACE	Mira Loma	Riverside	59.0
06-065-9001-42602-1	506 W FLINT ST.	Lake Elsinore	Riverside	48.0
06-067-0002-42602-1	7823 BLACKFOOT WAY.	North Highlands	Sacramento	77.0
06-067-0006-42602-1	DEL PASO-2701 AVALON DR.	Sacramento	Sacramento	45.6

Monitor ID	Street Address	City Name	County Name	One Hour NO_2 Design Value (ppb)
06-067-0010-42602-1	1309 T ST.	Sacramento	Sacramento	55.6
06-067-0011-42602-1	12490 BRUCEVILLE RD.	Elk Grove	Sacramento	35.6
06-067-0012-42602-1	50 NATOMA STREET	Folsom	Sacramento	32.6
06-067-0013-42602-1	3801 AIRPORT ROAD	Sacramento	Sacramento	52.0
06-067-0014-42602-1	68 GOLDENLAND COURT	Sacramento	Sacramento	47.5
06-071-0001-42602-1	200 E. BUENA VISTA	Barstow	San Bernardino	63.0
06-071-0306-42602-1	14306 PARK AVE.	Victorville	San Bernardino	62.0
06-071-1004-42602-2	1350 SAN BERNARDINO RD.	Upland	San Bernardino	70.0
06-071-1234-42602-1	CORNER OF ATHOL AND TELESCOPE	Trona	San Bernardino	42.6
06-071-2002-42602-1	14360 ARROW BLVD.	Fontana	San Bernardino	74.0
06-071-9004-42602-1	24302 4TH ST.	San Bernardino	San Bernardino	63.6
06-073-0001-42602-1	80 E. 'J' ST.	Chula Vista	San Diego	58.6
06-073-0003-42602-1	1155 REDWOOD AVE.	El Cajon	San Diego	53.3
06-073-0006-42602-1	5555 OVERLAND AVE.	San Diego	San Diego	56.3
06-073-1002-42602-1	600 E. VALLEY PKWY.	Escondido	San Diego	62.6
06-073-1006-42602-1	2300 VICTORIA DR.	Alpine	San Diego	38.0
06-073-1008-42602-1	21441-W B STREET	Camp Pendleton (Marine Corps Base)	San Diego	58.6
06-073-1010-42602-1	1110 BEARDSLEY STREET	San Diego	San Diego	69.6
06-073-2007-42602-1	1100 PASEO INTERNATIONAL	Otay Mesa	San Diego	84.6
06-075-0005-42602-1	10 ARKANSAS ST.	San Francisco	San Francisco	54.3
06-077-1002-42602-2	HAZELTON-HD.	Stockton	San Joaquin	57.6
06-077-3005-42602-1	5749 S. TRACY BLVD.	Tracy	San Joaquin	38.6
06-079-3001-42602-1	MORRO BAY BLVD & KERN AVE.	Morro Bay	San Luis Obispo	34.6
06-079-4002-42602-1	NIPOMO REGIONAL PARK.	Nipomo	San Luis Obispo	29.3
06-079-8001-42602-1	6005 LEWIS AVENUE	Atascadero	San Luis Obispo	42.0
06-081-1001-42602-1	897 BARRON AVE.	Redwood City	San Mateo	45.6
06-083-0008-42602-1	EL CAPITAN ST PRK, HWY 10	Capitan	Santa Barbara	29.6
06-083-0011-42602-1	700 E. CANON PERDIDO	Santa Barbara	Santa Barbara	46.0
06-083-1008-42602-1	906 S BROADWAY	Santa Maria	Santa Barbara	42.3
06-083-1013-42602-1	HS & P FACILITY-500 M SW.	Lompoc	Santa Barbara	7.0
06-083-1014-42602-1	PARADISE RD.	Los Padres National Forest	Santa Barbara	6.3
06-083-1018-42602-1	GTC B-HWY 101 NEAR NOJOQUI PASS, GAVIOTA	Gaviota	Santa Barbara	23.3

Monitor ID	Street Address	City Name	County Name	One Hour NO_2 Design Value (ppb)
06-083-1021-42602-1	GOBERNADOR RD.	Carpinteria	Santa Barbara	18.3
06-083-1025-42602-1	LFC #1-LAS FLORES CANYON	Capitan	Santa Barbara	14.0
06-083-2004-42602-1	128 S 'H' ST.	Lompoc	Santa Barbara	28.3
06-083-2011-42602-1	380 N FAIRVIEW AVENUE	Goleta	Santa Barbara	35.3
06-083-4003-42602-1	STS POWER PLANT	Vandenberg Air Force Base	Santa Barbara	8.6
06-085-0005-42602-1	158B JACKSON ST.	San Jose	Santa Clara	53.3
06-087-0003-42602-1	Center St	Davenport	Santa Cruz	22.0
06-095-0004-42602-1	304 TUOLUMNE ST.	Vallejo	Solano	42.3
06-095-0006-42602-1	E SECOND ST.	Benicia	Solano	34.5
06-097-0003-42602-1	837 5TH ST.	Santa Rosa	Sonoma	38.0
06-099-0006-42602-1	900 S MINARET STREET	Turlock	Stanislaus	48.6
06-101-0003-42602-1	773 ALMOND ST.	Yuba City	Sutter	49.3
06-107-2002-42602-1	310 N CHURCH ST.	Visalia	Tulare	61.3
06-111-2002-42602-1	5400 COCHRAN STREET	Simi Valley	Ventura	44.6
06-111-3001-42602-1	RIO MESA SCHOOL	El Rio	Ventura	37.6
06-113-0004-42602-1	UC DAVIS-CAMPUS	Davis	Yolo	36.0
TT-586-0009-42602-1	Pechanga Tribal Government Building	Not in a city	Riverside	25.8

*Design values are calculated according to the Primary NO2 NAAQS Final Rule (40CFR Part 50 Appendix S, Section 3), based on data queried from EPA's Air Quality System (AQS, http://www.epa.gov/ttn/airs/airsaqs/).

Appendix 3

NOx Emissions Projections and Controls – Kings County, California

NOx Emissions Projections and Controls - Kings County, California annual average daily emissions in tons per day						
Source Category	Example sources	Year			Change 2010-2020	
		2010	2015	2020	Value	Percent
fuel combustion at stationary sources	boilers at utilities and factories, irrigation pumps,	2.2	1.5	2.3	0.1	3.7%
waste disposal	landfills, wastewater treatment plants	0.0	0.0	0.0	0.0	16.7%
residential fuel combustion	woodburning, water heaters, cooking	0.1	0.1	0.1	0.0	-4.0%
fires	structural and wild fires	0.0	0.0	0.0	0.0	14.3%
managed burning and disposal	agricultural waste burning, prescribed burning	0.3	0.3	0.3	0.0	-2.8%
passenger vehicles	cars, light duty trucks, motorcylces, motor homes	1.8	1.2	0.8	-1.0	-54.3%
medium and light heavy duty trucks		1.3	1.0	0.7	-0.7	-49.2%
heavy heavy duty diesel and gas trucks	local, intrastate, and interstate trucks	15.0	9.8	6.6	-8.4	-56.1%
buses	tour, transit, and school buses	0.4	0.4	0.4	0.0	-6.7%
aircraft	commerical and military	3.0	3.4	3.7	0.8	26.6%
trains		0.9	1.0	1.0	0.1	10.6%
recreational equipment	boats, off-road motorcycles	0.0	0.0	0.0	0.0	19.0%
off-road equipment	construction, oil/gas exploration, forklifts	0.6	0.5	0.4	-0.2	-34.4%
farm equipment	tractors, loaders	2.2	1.5	1.0	-1.2	-53.1%
Total annual average day NOx emissions, Kings County		27.837	20.711	17.320	-10.5	-37.8%

Source: ARB, CEPAM-2009 Almanac - 2/6/2011

EXHIBIT 12

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	**Civ. Action No. 10cv383 (RJL)**
	)	
U.S. ENVIRONMENTAL PROTECTION AGENCY, *et al.*,	)	
	)	
	)	
Defendants.	)	

MEMORANDUM OPINION
(May 26 2010) [##12, 14]

Avenal Power Center, LLC ("plaintiff") brings this action against the U.S. Environmental Protection Agency ("EPA") and Lisa P. Jackson, Administrator of the EPA ("Administrator" and collectively "defendants") for violation of Section 165(c) of the Clean Air Act ("CAA"). Section 165(c) requires the EPA to grant or deny specified permit applications within one year. While the parties agree that the EPA has violated its duty to render a final decision within one year under Section 165(c), the parties disagree as to the appropriate remedy that the Court can, and should, impose. On March 16, 2011, the Court heard oral argument on this question. The EPA, in essence, argues that notwithstanding Congress' one-year statutory time limit (established in 1977) for a final agency action, the most the Administrator could now be required to do is issue a decision that is appealable to the Environmental Appeals Board ("EAB"): a review process enacted by regulation in 1992 for the assistance of the Administrator, that the EPA freely

concedes could take anywhere from six to eighteen months, or longer, to complete. In effect, the EPA contends that this subsequently-enacted regulatory review process *trumps* Congress' one-year statutory deadline and, as such, the most that this Court can do is require the agency to issue an appealable interim decision within the one-year statutory period. Upon consideration of the parties' pleadings, including parties' supplemental briefs on this question, oral argument, and the record herein, the Court disagrees with the defendants' position and, therefore, GRANTS, in part, plaintiff's Motion for Judgment on the Pleadings, and DENIES defendants' Motion for Summary Judgment. Accordingly, it is ORDERED that the EPA Administrator issue a final, non-appealable, agency action, either granting or denying plaintiff's permit application, no later than August 27, 2011.[1]

BACKGROUND

Avenal Power Center, LLC currently seeks to develop and build a state of the art 600 megawatt natural gas-fired power plant, the Avenal Energy Project. Jt. Stips. ¶¶ 1-3, Jt. Stmt. Re. Case Mgmt, and Sched., Ex. 1 [#11]. To this end, plaintiff submitted, in February 2008 to the EPA, a Prevention of Significant Deterioration ("PSD") permit application. The application was deemed complete on March 19, 2008. *Id.* ¶¶ 3-5. Almost *two years later*, however, after an elaborate and exhaustive EPA administrative process, which included a notice and comment period and public hearing, the plaintiff

[1] The Court reserves judgment with respect to plaintiff's request for attorney's fees and costs. In addition, in light of the February 4, 2011 declaration by Regina McCarthy, Assistant Administrator of the EPA's Office of Air and Radiation, which was released after plaintiff filed its Motion, as well as subsequent briefs and oral argument, the relief sought by plaintiff has been accordingly revised.

still had no final or foreseeable resolution to its application. As such, the plaintiff brought this action on March 9, 2010, seeking judicial relief to deal with EPA's continued violation of Congress's one-year deadline under Section 165(c) of the CAA. Compl. ¶ 28.

Initially, the EPA defended its delay by citing two unresolved issues with plaintiff's application: (1) the EPA required continued consultation with the U.S. Fish and Wildlife Service ("USFWS") to ensure compliance with the Endangered Species Act; and (2) the EPA required that plaintiff show that the Project would meet a new EPA standard for nitrogen dioxide ("NO2 Standard"). *See* Answer at 4. On September 1, 2010, however, USFWS issued a Biological Opinion that effectively mooted the first issue. Pl.'s Br. Re. Remedy, Feb. 15, 2011, ("Pl.'s Supp. Br.") at 5, n. 2 [#34]. Meanwhile, the NO2 Standard had gone into effect on April 12, 2010, and plaintiff, therefore, argued that the EPA could no longer withhold its decision on plaintiff's permit because of this new requirement. *See* Pl. Mot. J. on Pleadings at 11. Ultimately, the EPA conceded this point as well.

Indeed, on February 4, 2011, in a declaration by Regina McCarthy, Assistant Administrator of the EPA's Office of Air and Radiation, the EPA *reversed* its position on the NO2 Standard and announced that "[t]he PSD permit application submitted by Avenal in 2008 is among those PSD permit applications that EPA believes it is appropriate to grandfather from these additional [NO2 Standard] requirements, particularly in light of EPA's statutory obligation to grant or deny a complete PSD permit

application within one year . . . ." Corr. 2d Decl. of Reginal McCarthy ("McCarthy Decl.") ¶ 6. As such, the EPA announced that it would "be able to issue a final permit decision in accordance with 40 C.F.R. § 124.15 on [plaintiff's] permit application by May 27, 2011." *Id.* ¶ 13. Unfortunately, that offer was *not* what it appeared to be!

As plaintiff appropriately points out, EPA's promise of a "final permit decision" under 40 C.F.R. § 124.15 was inherently disingenuous. It actually was only a promise to render, in effect, an "interim decision" subject to appeal before the EAB. Pl. Supp. Br. at 7. Plaintiff, as a result, was left with no choice but to seek an order from the Court imposing a deadline, no later than May 27, 2011, by which defendants would be required to render a decision on plaintiff's permit application that would constitute an actual *final* agency action, allowing plaintiff to either begin construction on the Avenal Energy Project or seek judicial review in the Federal Courts pursuant to 42 U.S.C. § 7607. *See id.* at 17. Undaunted, defendants argued that an appealable decision by a Regional Administrator is sufficient to satisfy the CAA's one-year deadline and, in any event, this Court lacks jurisdiction to impose the relief being sought by the plaintiff. *See generally* Defs.' Response to Pl. Supp. Br. For the following reasons, I disagree with the defendants' oh so clever, but unsupportable, position.

ANALYSIS

In 1977, Congress required the Administrator of the EPA to grant or deny a permit application, filed under the CAA, within one year. 42 U.S.C. § 7475(c). The Administrator retained discretion, however, as to the procedural process that an applicant

had to comply with during that one-year period. *See* 42 U.S.C. § 7601(a). For example, the Administrator could delegate his or her ultimate decision on the application to a Regional Administrator, or an Assistant Administrator, or even require an interim decision by one of her subordinates prior to making the ultimate decision herself. *See, e.g.*, 40 C.F.R. §§ 124.15, 124.19; Mar. 1, 2011, Temporary Delegation, Defs.' Resp. to Pl.'s Supp. Br., Ex. 1. In 1992, however, the Administrator decided to create an Environmental Appeals Board and delegate to it the final review of a grant or a denial of such application by a Regional Administrator. *See* 57 Fed. Reg. 5320 (Feb. 13, 1992). Unfortunately, when the Administrator created that process she failed to build into it the temporal requirement that the EAB's decision be completed within the CAA's statutorily mandated one-year period. *See* 40 C.F.R. § 124.19. As a result, the EPA put in place a review process that can and has, in this case, rendered meaningless this Congressional one-year mandate.

Unfazed, the EPA argues, in effect, that this regulatory process trumps Congress's mandate and relieves the Administrator of complying with it until the EAB renders the Agency's final decision. *See* Defs.' Resp. to Pl. Supp. Br. at 5, 9-12; *see also* Tr. 3/19/11 at 31:17-21. Indeed, EPA contends, further, that this regulatory review process creates a right to this additional level of review that cannot be – effectively – denied by a Court order that requires the Administrator to issue a final – non-appealable – decision within the Congressionally mandated one-year period. *See* Defs.' Resp. to Pl. Supp. Br. at 5, 9-12; *see also* Tr. 3/19/11 at 36:3-6. In essence, the EPA contends that Congress's

statutory mandate is subservient to EPA's regulatory review process, and as such this Court has *no* authority to require the Administrator to comply with this statutory requirement. *See* Defs.' Resp. to Pl. Supp. Br. at 9-12; *see also* Tr. 3/19/11 at 36:3-6. How absurd!

It is axiomatic that an act of Congress that is patently clear and unambiguous – such as this requirement in the CAA[2] – cannot be overridden by a regulatory process created for the convenience of an Administrator, no matter how much notice and comment preceded its creation. *See Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984) ("If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress."); *Ernst & Ernst v. Hochfelder*, 425 U. S. 185, 213-14 (1978) ("The rulemaking power granted to an administrative agency charged with the administration of a federal statute is not the power to make law. Rather it is the power to adopt regulations to carry into effect the will of Congress as expressed by the statute." (internal quotations omitted)). Administrators of regulatory agencies derive their power from Congress's statutory enactments – not from their own discretionary regulatory pronouncements that are drafted for their assistance and convenience. *See North*

[2] The EPA has labored mightily to convince this Court that the temporal requirement enacted by Congress is somehow ambiguous and, therefore, this Court should defer to its interpretation under *Chevron*. *See* Defs.' Resp. to Pl.'s Supp. Br. at 13-17. Horsefeathers! The EPA's self-serving misinterpretation of Congress's mandate is too clever by half and an obvious effort to protect its regulatory process at the expense of Congress's clear intention. Put simply, that dog won't hunt.

Carolina v. EPA, 531 F.3d 896, 922 (D.C. Cir. 2008) (citing *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001)). To the extent that a regulatory process frustrates or renders meaningless a Congressional statutory mandate, it must yield to Congress's will. *See Ernst & Ernst v. Hochfelder*, 425 U. S. at 213-14; *Fed. Maritime Com. v. Seatrain Lines, Inc.*, 411 U.S. 726, 745 (1973); *see also Southland Royalty Co. v. Fed. Energy Admin.*, 512 F. Supp. 436, 446 (N.D. Tex. 1980). Thus, while the Administrator is welcome to avail herself of whatever assistance the EAB can provide her *within the one-year statutory period*, she cannot use that process as an excuse, or haven, to avoid statutory compliance.

Accordingly, the Administrator, in this Court's judgment, must issue a truly final decision, either granting or denying the permit in question as soon as possible. Regrettably her offer to issue an interim appealable decision by May 27, 2011 is patently inadequate as it has already exceeded Congress's mandate by some three years and undoubtedly would attenuate the process for yet another six to eighteen months. However, recognizing that the Administrator might need a brief additional period of time to determine how to best proceed vis-à-vis the existing EAB review process, the Court will extend the Administrator an additional 90 days to issue her final decision, either with or without the EAB's involvement.

CONCLUSION

Accordingly, for the foregoing reasons, it is ORDERED that the Administrator of the EPA issue a final decision granting or denying the plaintiff's permit no later than August 27, 2011. An order consistent with this decision accompanies this Memorandum Opinion.

RICHARD J. LEON
United States District Judge

EXHIBIT 13

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

AVENAL POWER CENTER, LLC Plaintiff, v. U.S. ENVIRONMENTAL PROTECTION AGENCY and LISA P. JACKSON, in her capacity as Administrator of the U.S. Environmental Protection Agency Defendants.	)	Case No.: 1:10-cv-00383-RJL (Hon. Richard J. Leon)

DEFENDANTS' RESPONSE TO PLAINTIFF'S SUPPLEMENTAL BRIEF REGARDING REMEDY

The appropriate remedy in this case is the one proposed by EPA in its Cross-Motion for Summary Judgment, as modified by the McCarthy Declarations: an order requiring the Administrator's delegate to grant or deny Plaintiff's permit application by May 27, 2011, in accordance with the procedures set forth in 40 C.F.R. Part 124. Such an order is sufficient to discharge EPA's nondiscretionary duty under Section 165(c) of the Clean Air Act ("CAA") to "grant or deny" the permit application at issue in this matter and is otherwise consistent with the CAA and EPA's regulations.

In its motion for judgment on the pleadings, Plaintiff asks the Court to, among other things, order EPA to "[g]rant the PSD permit application for the Project" and order EPA to "[t]ake other appropriate actions to remedy, mitigate, and offset the harm to Plaintiff caused by [EPA's] disregard of their statutory duty . . . ." Plaintiff's Proposed Order, Docket Entry 12-1. In its most recent brief, however, Plaintiff appears to concede that requiring EPA to grant Plaintiff's permit and ordering other declaratory relief are not appropriate remedies in a deadline

suit like this one. Instead, Plaintiff asks the Court to order the EPA Administrator to take final agency action on the permit application by May 27, 2011, thereby cutting off the public's opportunity to petition the Environmental Appeals Board ("EAB") for review of the permit decision, as provided in EPA's regulations. Plaintiff's Brief Regarding Remedy at 3. Yet such a remedy is not an appropriate remedy either, because the Court has no jurisdiction to order it. First, Plaintiff's requested relief amounts to a challenge to EPA's regulations, which provide a specific permit review process culminating in a permit grant or denial by the Administrator's delegate, not a final agency action by the Administrator herself. Such a challenge is time-barred under the CAA. Second, Plaintiff's requested relief would require the Court to direct the manner in which the Administrator uses her discretion, which is prohibited under the body of case law governing deadline suit remedies. In any event, EPA's interpretation of its Section 165(c) duty is reasonable and should be afforded deference by the Court.

STATUTORY AND REGULATORY BACKGROUND[1]

Part C of Subchapter I of the Clean Air Act provides the Act's Prevention of Significant Deterioration of Air Quality ("PSD") Program. *See generally* 42 U.S.C. §§ 7470-7479. Congress's purpose in enacting the PSD Program was, *inter alia*, "to assure that any decision to permit increased air pollution . . . is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process." *Id.* § 7470(5). CAA Section 165 provides statutory requirements for issuing such permits, including that "[any proposed permit be] subject to a review in

[1] Defendants direct the Court's attention to Defendants' Memorandum of Points and Authorities in Opposition to Plaintiff's Motion for Judgment on the Pleadings and In Support of Defendants' Cross-Motion for Summary Judgment ("Defendants' Memorandum in Support") and supporting materials (Jordan Declarations and McCarthy Declarations), as well as the parties' Joint Stipulation of Facts, for a summary of the facts of this case. *See* Docket Entries 11, 14, 24, 30.

accordance with this section, the required analysis [be] conducted *in accordance with regulations promulgated by the Administrator*, and a public hearing [be] held with opportunity for interested persons . . . to appear and submit written or oral presentations on the air quality impact of such source . . . ." *Id.* § 7475(a)(2) (emphasis added). Section 165(c) provides that a completed PSD permit application must be "granted or denied not later than one year after the date of filing of such completed application." *Id.* § 7475(c).

CAA Section 301(a)(1) authorizes the Administrator to "prescribe such regulations as are necessary to carry out his [or her] functions [and] delegate to any officer or employee of the Environmental Protection Agency such of his [or her] powers and duties under this chapter, except the making of regulations . . . , as he [or she] may deem necessary or expedient." *Id.* § 7601(a)(1). Pursuant to such authority, and the authority to promulgate regulations governing the PSD permit review process explicitly mentioned in CAA Section 165, *id.* § 7475(a)(2), EPA promulgated 40 C.F.R. Part 124 to provide a very specific process for the review and analysis of PSD permit applications. *See* 40 C.F.R. Part 124. PSD permit applications are reviewed under one of three methods—by EPA, by states with delegated authority to apply federal law, or by states approved to issue permits under state law incorporated into an EPA-approved State Implementation Plan. 40 C.F.R. §§ 52.21(a), 52.21(u), 51.166(a)(7). The first method, which is the one at issue here, is governed by the procedures set forth in 40 C.F.R. Part 124. The Administrator is bound to follow the Part 124 procedures. 40 C.F.R. § 52.21(q). Indeed, in a paragraph entitled "Public participation," EPA's PSD regulations explicitly state that "[t]he Administrator *shall follow* the applicable procedures of 40 C.F.R. Part 124 in processing applications under this section." *Id.* (emphasis added).

In Part 124, the Administrator delegated authority to review PSD permit applications to

the Director, who is defined in Part 124 as the Regional Administrator, *see id.* §§ 124.2, 124.41. After receiving a PSD permit application, the Regional Administrator must first determine whether the applicant has complied with the applicable requirements so that the application can be deemed complete. *Id.* § 124.3. Next, the Regional Administrator tentatively decides whether to prepare a draft permit or issue a notice of intent to deny the permit application. *Id.* § 124.6. If the Regional Administrator decides to prepare a draft permit, he or she must also prepare a statement of basis or fact sheet. *Id.* §§ 124.7, 124.8. The Regional Administrator must also provide the public with notice of the tentative decision and an opportunity to provide comments on it, as well as a public hearing if requested. *Id.* § 124.10-12. Finally, the Regional Administrator issues a final permit decision. *Id.* § 124.15. [2]

Section 124.19 provides anyone who commented on the proposed permit during the comment period, including the permit applicant, the right to petition the Environmental Appeals Board ("EAB") for review of the Regional Administrator's final permit decision within thirty days of the decision. *Id.* § 124.19. The permit decision becomes final agency action for purposes of appeal to a federal court of appeals only after the administrative appeal process is exhausted. *See id.* §§ 124.6(e), 124.19(e)-(f). A petition for review by the EAB under Section 124.19 is a prerequisite to seeking judicial review of the final agency action. *Id.* § 124.19(e).

The right to file an administrative petition for review of final permit decisions was first established in 1980 when EPA promulgated Part 124, including Section 124.19. *See* 45 Fed.

[2] Although Part 124 refers to the Regional Administrator, the Administrator has temporarily changed her delegation of authority to issue a final permit decision here. *See* March 1, 2011, Temporary Delegation, Exhibit A. Because of the national implications of the Agency's changed position on the applicability of the revised NO2 NAAQS, the Assistant Administrator for the Office of Air and Radiation, Regina McCarthy, will stand in the shoes of the Regional Administrator to issue the permit decision in accordance with the procedures set forth in Part 124. *Id*; *see also infra* n.5.

Reg. 33,405, 33,412 (May 19, 1980). This rule, which was properly adopted through a notice-and-comment procedure, is a legislative rule that cannot be changed without completing a notice-and-comment rulemaking because the rule establishes the right of private parties to request such review. *See Am. Hosp. Ass'n v. Bowen*, 834 F.2d 1037, 1045 (D.C. Cir. 1987) ("Substantive rules are ones which grant rights, impose obligations, or produce other significant effects on private interests . . .") (quotations and citation omitted); *Batterton v. Marshall*, 648 F.2d 694, 701-02 (D.C. Cir. 1980). From 1980 to 1992, Section 124.19 provided that the Administrator would hear petitions for review of PSD permit decisions. 45 Fed. Reg. at 33,412; *see also* 57 Fed. Reg. 5320 (Feb. 13, 1992) (describing the administrative appeal process between 1980 and 1992). In 1992, EPA created the Environmental Appeals Board, and the Administrator then delegated to the Board authority to hear petitions for review brought pursuant to Section 124.19. *See* 57 Fed. Reg. 5320-1.[3]

Since 1992, the Environmental Appeals Board has issued sixty-one published opinions on petitions for review of PSD permits. *See* Published Decisions: PSD Permit Appeals (CAA), http://yosemite.epa.gov/oa/EAB_Web_Docket.nsf/PSD%20Permit%20Appeals%20(CAA)!OpenView&Start=1 (last visited Mar. 1, 2011). Only four of the EAB's decisions on review of PSD permits have been appealed to the United States Courts of Appeals. *See Sierra Club v. EPA*, 499 F.3d 653 (7th Cir. 2007); *Santa Teresa Citizen Action Group v. Envtl. Appeals Bd.*, No. 01-71611, 51 Fed. Appx. 702 (9th Cir. 2002); *Sur Contra La Contaminacion v. EPA*, 202 F.3d 443

[3] EPA adopted this rule without following the APA's notice-and-comment procedures under the APA's exemption for "rules [of] agency organization, practice or procedure." 57 Fed. Reg. at 5322. The applicability of this exemption is preserved under the CAA. 42 U.S.C. § 7607(d)(1). The 1992 rulemaking did not alter the rights of parties to petition for review, but required parties to present their petitions to the EAB rather than the Administrator. *See Batterton*, 648 F.2d at 707 ("a useful articulation of the exemption's critical feature is that it covers agency actions that do not themselves alter the rights or interests of parties, although it may alter the manner in which the parties present themselves or their viewpoints to the agency.")

(1st Cir. 2000); *Chabot-Las Posita Cmty. Coll. Dist. v. EPA*, Petition for Review filed Jan. 13, 2011, No. 10-73870 (9th Circuit). To date, no court has granted a petition for review of an EAB PSD decision.

When the EAB was created, the Administrator delegated exclusive authority to hear petitions for review of permit decisions and explicitly denied herself the authority to consider appeals filed directly with the Administrator or to review decisions by the EAB. *See* 40 C.F.R. §§ 124.2 (The definition of the EAB provides that "[a]n appeal directed to the Administrator, rather than to the Environmental Appeals Board, will not be considered."); 40 C.F.R. § 124.19(g) ("Motions for reconsideration directed to the administrator, rather than to the Environmental Appeals Board, will not be considered . . . ."); s*ee also* 57 Fed. Reg. 5321 ("[T]he delegation of authority does not preclude the Board from referring a particular case or motion to the Administrator for decision when the Board deems it appropriate to do so. The language of the provisions makes clear, however, that an appeal or motion for reconsideration of a Board decision must be directed to the Board. An appeal or motion for reconsideration directed to the Administrator will not be considered. One of the goals of the Board is to relieve the Administrator of the responsibility for responding to appeals."). Since delegating authority to hear appeals to the EAB, the Administrator has repeatedly declined to review the conditions of PSD permits in the context of petitions to object to CAA operating permits that incorporate conditions from PSD permits, explaining that authority to hear PSD permit appeals rests exclusively with the EAB under 40 C.F.R. § 124.19. *See In re Louisville Gas & Electric Co.*, Petition No. IV-2008-3 (Order on Petition) at 4 n.5 (Aug. 12, 2009), *available at* http://www.epa.gov/region07/air/title5/petitiondb/petitions/lg_e_2nddecision2006.pdf (last visited Mar. 1, 2011) (citing *In re Kawaihae Cogeneration Project*, Petition No. 0001-01-3

(Order Responding to Petitioner's Request that the Administrator Object to Issuance of a State Operating Permit) (Mar. 10, 1997), *available at* http://nlquery.epa.gov/epasearch/epasearch (search Kawaihae Cogeneration Project) (last visited Mar.1, 2011). Indeed, the only role Part 124 provides for the Administrator for review of PSD permitting decisions is the review of cases or motions referred to the Administrator by the EAB when the EAB deems it appropriate to do so. *See* 40 C.F.R. § 124.2 (definition of EAB). The EAB has not done so here.

ARGUMENT

I. THE COURT HAS NO JURISDICTION TO ORDER PLAINTIFF'S REQUESTED RELIEF.

A. PLAINTIFF'S CHALLENGE TO EPA'S REGULATIONS IS UNTIMELY.

As an initial matter, Plaintiff's challenge to the process EPA has prescribed in its regulations is untimely. Although Plaintiff contends in a footnote that it is not challenging EPA's regulations, *see* Plaintiff's Brief Regarding Remedy at 8 n.4, Plaintiff has asked the Court to set aside the EAB review process and the right of third parties to administrative appeal as provided in Part 124 and order the Administrator to take final agency action on its permit application. *Id.* at 3, 8-9, 11, 17. Plaintiff argues repeatedly that nothing in the CAA mandates the procedures provided in Part 124, and that the Administrator cannot use the regulations to avoid her mandatory duty under Section 165(c) of the Act. *Id.* at 3, 12, 17. These arguments are plainly challenges to the validity of the regulations in the first instance.

First, contrary to Plaintiff's arguments, the Administrator must follow the Agency's regulations. *See United States ex rel. Accardi v. Shaughnessy*, 347 U.S. 260, 267 (1954) (articulating what has come to be known as the *Accardi* doctrine—"as long as the regulations remain operative, the Attorney General denies himself the right to sidestep the Board [of Immigration Appeals] or dictate its decision in any manner"); *AFL-CIO v. Fed. Labor Relations*

Auth., 777 F.2d 751, 759 (D.C. Cir. 1985) (describing as a fundamental principle of administrative law that "unless and until [an agency] amends or repeals a valid legislative rule or regulation, [the] agency is bound by such a rule or regulation"), *see also* 40 C.F.R. § 52.21(q) (explicitly requiring the Administrator to follow the Part 124 procedures).

Second, the regulations at issue here were first promulgated in 1980. *See* 45 Fed. Reg. 33,290-91. In that rulemaking, EPA received public comments expressing concern that establishing a right to an administrative appeal of PSD permits under Section 124.19 would cause delay. *Id.* at 33,412. Additionally, EPA received comments expressing concern that Part 124's provisions for consolidating review of PSD permit applications with other environmental permit applications would run afoul of the obligation in CAA Section 165(c). *Id.* at 33,407-08. EPA explained in response that the Agency believed the appeal process was necessary to ensure consistency, and neither the appeal process nor permit consolidation would cause delay. *Id.* at 33,407-08, 33,412. No party, including Avenal, sought judicial review of the adoption of Section 124.19 on the basis of CAA Section 165(c) or other authority within the sixty-day time period provided by the Act to challenge newly-promulgated regulations. *See* 42 U.S.C. § 7607(b) (stating that any petition for review of any nationally applicable regulations must be filed "within sixty days from the date notice of such promulgation . . . appears in the Federal Register"). Accordingly, Plaintiff is time-barred from challenging Section 124.19 here. *See, e.g.*, *Hawaiian Elec. Co., Inc. v. EPA*, 723 F.2d 1440, 1447 (9th Cir. 1984) (finding that the plaintiff was time-barred from challenging the definition of "major modification," which was also promulgated in 1980, through its petition for review of EPA's determination that plaintiff must comply with PSD requirements applying to major modifications).

"[T]emporal limitations on judicial review are jurisdictional in nature." *Nat'l Mining*

Ass'n. v. U.S. Dep't of Interior, 70 F.3d 1345, 1350, 1350 (D.C. Cir. 1995) (holding arguments that were available at the time the rule was adopted were time-barred and noting similar limitations on jurisdiction in other environmental statutes including the CAA). Like similar provisions found in other environmental statutes that narrowly limit the time within which regulations can be challenged, the purpose of the CAA's limitation is to "bring[] finality to the administrative process and reflects 'a deliberate congressional choice to impose statutory finality on agency [action], a choice [the courts] may not second-guess.'" *See W. Neb. Res. Council v. EPA*, 793 F.2d 194, 198 (8th Cir. 1986) (quoting *Eagle-Picher Indus.*, 759 F.2d at 911, and citing *Cerro Copper Prods. Co. v. Ruckelshaus*, 766 F.2d 1060, 1069 (7th Cir. 1985) (Clean Water Act); *Eagle-Picher Indus.*, 759 F.2d at 911 (Comprehensive Environmental Response, Compensation and Liability Act); *Selco Supply Co. v. EPA*, 632 F.2d 863, 865 (10th Cir. 1980) (Federal Insecticide, Fungicide and Rodenticide Act), *cert. denied*, 450 U.S. 1030 (1981); *Lloyd A. Fry Roofing Co. v. EPA*, 554 F.2d 885, 892 (8th Cir. 1977) (Clean Air Act)).

Accordingly, the Court does not have jurisdiction to order the remedy Plaintiff requests because it is not consistent with the Agency's regulations—regulations the Administrator must follow. Instead, the Court should order EPA's proposed remedy—a grant or denial of Plaintiff's permit application by the Administrator's delegate by May 27, 2011, in accordance with 40 C.F.R. § 124.15.

B. THE COURT'S JURISDICTION TO ORDER A REMEDY IS LIMITED IN DEADLINE SUITS.

The Court also lacks jurisdiction to order the remedy Plaintiff requests under the body of case law governing deadline suits like this one. Indeed, contrary to Plaintiff's contention, *see* Plaintiff's Brief Regarding Remedy at 3, EPA did not concede that the Court has jurisdiction to order the Administrator to take final agency action during the February 1, 2011, status

conference. Defendants have consistently argued that this Court's jurisdiction to grant equitable relief in this matter is limited. *See, e.g.*, Defendant's Memorandum in Support at 12-15; Defendant's Reply at 11-16. Under the Clean Air Act, the citizen suit provision provides a waiver of sovereign immunity for claims alleging that the agency has failed to perform a nondiscretionary duty under the Act. 42 U.S.C. § 7604(a). The Supreme Court has repeatedly held that "[w]aivers of immunity must be construed strictly in favor of the sovereign . . . and not enlarged beyond what the language requires." *Ruckelshaus v. Sierra Club*, 463 U.S. 680, 685-86 (1983) (quoting cases). Where the United States has consented to be sued, the terms of that waiver of sovereign immunity define the extent of the Court's jurisdiction." *United States v. Sherwood*, 312 U.S. 584, 586 (1941). In fashioning a remedy in a deadline suit, district courts do not have jurisdiction to review the substance of the agency's decisionmaking, or "direct the manner in which any discretion given the Administrator . . . should be exercised." *NYPIRG v. Whitman*, 214 F. Supp. 2d 1, 3 (D.D.C. 2002). "Notably, the CAA does not allow district courts to address the content of EPA's conduct, issue substantive determinations on its own, or grant other forms of declaratory relief." *Sierra Club v. Browner*, 130 F. Supp. 2d 78, 90 (D.D.C. 2001).

Here, Plaintiff brought suit alleging that EPA failed to perform a nondiscretionary duty under CAA Section 165(c).[4] *See* Complaint at ¶¶ 27-30. The CAA provides the Administrator the authority to delegate that duty, *see* 42 U.S.C. § 7601(a)(1), and the Administrator has

[4] Plaintiff also refers to the Agency's "unreasonable delay." Plaintiff's Brief Regarding Remedy at 14-15. An "unreasonably delay claim" is a separate and distinct claim from a "nondiscretionary duty claim." *See Sierra Club v. Thomas*, 828 F.2d 783, 788, 791-92 (D.C. Cir. 1987). Plaintiff did not plead an unreasonable delay claim in the Complaint. *See* Plaintiff's Complaint at ¶¶ 27-30.

exercised her discretion to do so here. [5] *See* March 1, 2011, Temporary Delegation, Exhibit A; *see also* 40 C.F.R. § 124.15. Likewise, EPA long ago exercised its rulemaking authority to provide third parties and applicants the right to petition for an administrative appeal of permit decisions. 40 C.F.R. § 124.19(a). Contrary to Plaintiff's contention that the Part 124 procedures "only apply when decisions are made by a subordinate EPA official," Plaintiff's Brief Regarding Remedy at 8, the Part 124 regulations expressly require a process in which permitting decisions are made by subordinate EPA officials *with* an opportunity to petition for review of such decisions. *See* 40 C.F.R. §§124.2, 124.15, 124.19. Indeed, even if the EAB were to refer an appeal to the Administrator, Section 124.19 would continue to apply to the Administrator. *See* 40 C.F.R. § 124.2 (The definition of the EAB provides that "[w]hen an appeal or motion is referred to the Administrator . . . the rules in this subpart referring to the Environmental Appeals Board shall be interpreted as referring to the Administrator."). Accordingly, Part 124 provides for a specific permit review process. While the Administrator retains the discretion to amend or revoke Part 124, she has not done so and the Court lacks the jurisdiction in this matter to order the Administrator to exercise her discretion to do so. *United States v. Nixon*, 418 U.S. 683, 694-96 at (1974) ("So long as this regulation [establishing the powers of the Watergate special prosecutor] remains in force the Executive Branch is bound by it, and indeed the United States as the sovereign composed of the three branches is bound to respect and to enforce it.").

By requesting that the Court order the Administrator to issue a permit decision bypassing

[5] As noted *supra*, the Administrator has temporarily changed her delegation of authority to issue a final permit decision here. *See* March 1, 2011, Temporary Delegation, Exhibit A. Unlike withdrawing the right of appeal to the EAB, which is a substantive right, EPA is not required to complete a notice-and-comment rulemaking process to change the Administrator's delegation since such a change is a procedural rule that does not alter the rights or interests of parties. *See* 5 U.S.C. § 553(b)(A) (exempting "rules of agency organization, procedure, or practice" from the Administrative Procedure Act's notice-and-comment requirement for substantive rules). *See also Batterton*, 648 F.2d at 707.

the EAB review process, Plaintiff urges this Court to dictate the procedure by which the Agency reaches a permit decision in this case. Plaintiff's only support for its request is CAA Section 304(a), which provides the Court with jurisdiction to order the "Administrator" to act. *See* 42 U.S.C. § 7604(a). Yet nothing in Section 304 authorizes the Court to order EPA to act inconsistently with its delegations or regulations. *See id.* Indeed, even where the CAA specifies that the "Administrator" must take a certain action, authority to perform such action may be delegated. *See* 42 U.S.C. § 7601(a)(1); *see, e.g.*, Delegation 7-10, Exhibit B (delegating to the Regional Administrator the Administrator's duty to propose or take final action on any State Implementation Plan under Section 110 of the CAA, which requires, *inter alia*, that the "Administrator" determine whether a submitted state implementation plan is complete, *see* 42 U.S.C. § 7410(k)(1)(B)). Thus, since Congress explicitly authorized the Administrator to delegate any of her duties except the promulgation of regulations, the reference to the "Administrator" in Section 304(a) has no bearing with regard to which official in the Agency must fulfill any particular nondiscretionary duty.

Furthermore, Plaintiff's proposed remedy would lead to an absurd and unjust result since parties who seek judicial review of permit decisions must first petition the EAB to review the decision as a prerequisite to judicial review of the final agency action. 40 C.F.R. § 124.19(e); *see also* 42 U.S.C. § 7607(b) (limiting judicial review to "final agency actions"); 5 U.S.C. § 704 (requiring "appeal to a superior agency authority" if the agency's rules so require prior to judicial review). Indeed, under the administrative waiver doctrine, parties must first raise each of their arguments before the EAB before the arguments can be considered by a federal court. *See United States v. L.A. Tucker Truck Lines, Inc.*, 344 U.S. 33, 37 (1952) ("Simple fairness to those who are engaged in the tasks of administration, and to litigants, requires as a general rule that

courts should not topple over administrative decisions unless the administrative body not only has erred but has erred against objection made at the time appropriate under its practice."); *see also Vidiksis v. EPA*, 612 F.3d 1150, 1158-59 (11th Cir. 2010) (finding arguments not raised before EAB were waived). Thus, as Plaintiff would have it, third parties who plan to appeal the Avenal permit decision to the EAB would not only lose their right to appeal to the EAB, but such parties *and Avenal itself* would be precluded from seeking judicial review before a federal court of appeals because they would not have exhausted their administrative remedies as required by EPA's regulations, the CAA, and the APA. The Court should not order a remedy that would lead to such an absurd and unjust result, nor should the Court order a remedy that dictates the Agency's discretion or conduct. Rather, the Court should order a remedy consistent with the Administrator's delegations and regulations—an order allowing the Administrator's delegate until May 27, 2011, to issue a final permit decision in accordance with 40 C.F.R. § 124.15.

II. A FINAL PERMIT DECISION UNDER 40 C.F.R. § 124.15 DISCHARGES EPA'S DUTY UNDER CAA SECTION 165(c).

Even if the Court determines that it has jurisdiction to consider Plaintiff's arguments in the context of this deadline suit, the action EPA has committed to complete by May 27, 2011, will discharge EPA's nondiscretionary duty in this matter. Section 165(c) of the Clean Air Act obligates EPA to "grant or deny" a complete permit application within one year, and does not plainly require that the permit become effective or "final agency action" for purposes of judicial review within this time period. *See* 42 U.S.C. § 7475(c). A final permit decision under 40 C.F.R. § 124.15 is a decision to "grant or deny" the permit application. The Court should defer to EPA's long-standing interpretation that its obligation under CAA Section 165(c) is satisfied by a permit "grant" or "denial" under 40 C.F.R. § 124.15.

A. EPA HAS INTERPRETED CAA SECTION 165(c) TO REQUIRE PERMIT ISSUANCE OR DENIAL BY THE ADMINISTRATOR'S DELEGATE SINCE 1980.

EPA has construed Section 165(c) as requiring a permit issuance or denial under 40 C.F.R. § 124.15 within one year since 1980, when it promulgated 40 C.F.R. Part 124. As mentioned *supra*, EPA's Part 124 rules provide the option to consolidate the processing of PSD permits with additional permits required under other environmental laws. *See* 40 C.F.R. § 124.4. However, in recognition of CAA Section 165(c), 40 C.F.R. § 124.4(e) specifically provides the following: "Except with the written consent of the permit applicant, the Regional Administrator shall not consolidate processing a PSD permit with any other permit . . . when to do so would delay issuance of the PSD permit more than one year from the effective date of the application under 124.3(f)." *Id.* § 124.4(e); *see also*, 45 Fed. Reg. at 33,407-08 (referencing Section 165(c) of the CAA). Part 124 defines the effective date of the application as the date when EPA notifies the applicant that the application is complete. 40 C.F.R. § 124.3(f). The "issuance of a PSD permit" is accomplished when EPA takes the step described in Section 124.15 of the regulations. *Id.* § 124.15. The fact that Section 124.4(e) is focused on the "issuance of the PSD permit" within one year and Section 124.15 uses the term "issue" to describe a final decision to grant a permit application, illustrates that, in promulgating Part 124, EPA interpreted Section 165(c) to require that the Administrator's delegate make a final permit decision under Section 124.15 within the statutory time period. The Court should defer to EPA's interpretation because it is supported by the statute and its legislative history.

B. EPA'S INTERPRETATION IS ENTITLED TO DEFERENCE BECAUSE IT IS SUPPORTED BY THE STATUTE AND ITS LEGISLATIVE HISTORY.

EPA's interpretation of CAA Section 165(c) as requiring a final permit decision by the

Administrator's delegate, rather than a final agency action after administrative appeal, within one year should be given controlling weight under *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). "[C]onsiderable weight should be accorded to an executive department's construction of a statutory scheme it is entrusted to administer . . . ." *Id.* at 844. Under the familiar *Chevron* two-step approach, when evaluating an agency's interpretation of the statute it administers, the court must first ask "whether Congress has directly spoken to the precise question at issue." *Chevron*, 467 U.S. at 842. If it has, "that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842-43. If not, then the court must proceed to the second step. Under the second step, the court must determine if Congress has explicitly or implicitly delegated authority to the agency to "elucidate a specific provision of the statute." *Id.* at 843-44. Where there is an explicit delegation of authority, the agency's interpretations are given "controlling weight unless they are arbitrary, capricious, or manifestly contrary to the statute." *Id.* Where there is an implicit delegation, the court must uphold the agency's interpretation if it is reasonable. *Id.* at 844.

Here, the precise question is whether Congress intended the grant or denial of the permit application described in CAA Section 165(c) to mean "final agency action" for purposes of appeal to a federal court. Neither the plain language of the statute nor its legislative history provides an answer to this question; thus, the statute is ambiguous. Furthermore, because Congress provided EPA with authority to promulgate regulations governing the permitting process, *see* 42 U.S.C. §§ 7475(a)(2), 7601(a)(1), Congress explicitly provided EPA with the authority to elucidate what Congress meant by "[a] completed permit application . . . shall be granted or denied not later than one year after the date of filing of such completed application."

Id. § 7475(c). Accordingly, this Court must give EPA's interpretation of CAA Section 165(c) controlling weight unless arbitrary, capricious, or manifestly contrary to the statute. As explained below, EPA's interpretation is consistent with the CAA and its legislative history.

First, the plain language of Section 165(c) simply requires that a completed PSD permit application be "granted or denied not later than one year after the date of filing of such completed application." *Id.* Section 165(c) does not identify any particular official that must take such action or otherwise suggest that the action must be a final agency action. *Id.* Moreover, although Plaintiff repeatedly states that Congress "clearly" intended Section 165(c) to require final agency action, *see* Plaintiff's Brief Regarding Remedy at 3, 8-11, Plaintiff provides no support for this proposition. Rather, Plaintiff solely relies on the fact that the regulations at issue and the EAB were not in existence at the time Section 165(c) was enacted. *See id.* at 8-11. But the CAA, including parts of the PSD Program, was extensively amended in 1990, long after Part 124 was promulgated and the administrative appeal process was applied by regulation to PSD permits, and Congress failed to amend Section 165(c) at that time. *Compare, e.g.*, 42 U.S.C. §§ 7474, 7475 (1977) *with* 42 U.S.C. §§ 7474, 7475 (1990). Had Congress believed that EPA had inappropriately used its rulemaking authority to define its Section 165(c) duty as one requiring issuance by the Administrator's delegate and to provide for an administrative appeal of PSD permit grants or denials, Congress would have amended Section 165(c) at that time. Thus, there is no reason to think Congress intended Section 165(c) to require completion of administrative appeals within the one year period.

Furthermore, in setting forth the framework of the PSD Program in the CAA, Congress emphasized the importance of public participation in PSD permit decisionmaking. Specifically, in describing the Program's purposes, Congress made clear that it intended the PSD Program to

assure that decisions to permit increased air pollution (through permits issued under the program) be made "only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process." 42 U.S.C. § 7470(5). Likewise, in addressing the PSD permitting process specifically, Congress mandated that no permit be issued unless "a public hearing has been held with opportunity for interested persons . . . to appear and submit written or oral presentations on the air quality impact of such source . . . [or] other appropriate considerations." *Id.* § 7475(a)(2). The opportunity to petition the EAB for review of a permit decision under Section 124.19 serves an important role in satisfying the Congressional goal that EPA provide "adequate procedural opportunities for informed public participation in the decisionmaking process." While Section 124.11 provides for public comment on a draft permit and supporting statement of basis, Section 124.19 provides an opportunity for the public to review the entire administrative record, as supplemented by the Agency's response to public comments on the draft permit, and identify any clear error in the final permit decision. *See* 40 C.F.R. §§ 124.11, 124.17(b), 124.19. By ensuring both a public notice-and-comment process prior to the final permit decision by the Administrator's delegate and an opportunity to request review by the EAB after the final permit decision, the procedures in Part 124, as applied to PSD permit applications, embody Congress's intent that the public have ample opportunity to take part in PSD permit decisionmaking.

Thus, EPA's long-standing interpretation of CAA Section 165(c) as requiring a final permit decision by the Administrator's delegate, rather than final agency action, is reasonable and entitled to deference in the context of determining a remedy in this case. Accordingly, the Court should enter an order consistent with EPA's interpretation.

III. EPA'S PROPOSED SCHEDULE REPRESENTS THE REASONABLE MINIMUM TIME NECESSARY TO COMPLETE THE REQUIRED ACTION.

In a suit alleging violation of a Congressionally mandated duty, the district court exercises its discretion to fashion a remedy by considering whether "the official involved . . . has in good faith employed the utmost diligence in discharging his statutory responsibilities." *NRDC v. Train*, 510 F.2d 692, 713 (D.C. Cir. 1975). In setting a deadline for action, the Court should not order EPA to do an impossibility. *Id.*

Contrary to Plaintiff's contention, EPA is entitled to its proposed remedy because it has demonstrated that it has exercised utmost diligence and good faith in processing Plaintiff's permit application. As the Jordan Declaration and Joint Stipulation make clear, EPA Region 9 worked tirelessly to review materials submitted by the applicant before and after Region 9 deemed the application complete. *See* Joint Stipulation ¶ 6; Jordan Decl. ¶¶ 9-11. Region 9 also regularly contacted the U.S. Fish and Wildlife Service regarding the status of the Biological Opinion, which identified measures necessary to be incorporated into the permit to ensure the protection of the San Joaquin kit fox, an endangered species under the Endangered Species Act. *Id.*

Additionally, both Region 9 and EPA Headquarters expended significant effort in an attempt to help Plaintiff identify what it needed to do to show compliance with the revised NO2 NAAQS. *See* Joint Stipulation ¶ 6; Jordan Decl. ¶¶ 13-17; McCarthy Declaration ¶¶ 5-7. While the Agency recently changed its position regarding Plaintiff's need to show compliance with the revised NO2 NAAQS, the Agency's change in position does not indicate that the Agency engaged in "foot-dragging" or acted in bad faith. To the contrary, EPA promulgated the revised NO2 NAAQS in order to comply with a court-ordered deadline. *See* Defendant's Memorandum in Support at 7 n.1. EPA's original position requiring Avenal and others similarly situated to

demonstrate compliance with the revised NO2 NAAQS was supported by the plain language of the CAA and EPA's regulations. *See id.* at 19-20; Defendant's Reply at 12-16. In order to revise its position, EPA has determined that it must provide public notice and an opportunity for comment on its change in position and has spent significant Agency resources to support this effort. *See* Corrected McCarthy Declaration ¶¶ 6-13. In summary, while EPA understands Plaintiff's frustration with the lengthy permitting process thus far, the record demonstrates that the EPA has worked with utmost diligence and good faith to review Plaintiff's permit application in accordance with the applicable regulations. As explained by Ms. McCarthy, May 27, 2011, is the earliest the Agency can issue a decision on Plaintiff's permit application in accordance with 40 C.F.R. § 124.15. *See id.* ¶¶ 11, 13. Because Plaintiff has requested relief that exceeds the scope of remedy authorized by the citizen suit provision, and EPA's proposed remedy reflects the reasonable minimum time necessary to complete EPA's Section 165(c) duty, EPA respectfully requests that the Court grant EPA until May 27, 2011, to grant or deny Plaintiff's permit application in accordance with 40 C.F.R. § 124.15.

CONCLUSION

For the foregoing reasons, the Court should deny the relief requested by Plaintiff and instead grant EPA's motion for summary judgment on remedy, ordering EPA to issue a final permit decision in accordance with 40 C.F.R. § 124.15 by May 27, 2011.

Dated: March 1, 2011

Respectfully submitted,

IGNACIA S. MORENO
Assistant Attorney General
Environment and Natural Resources Division

/s/ Stephanie J. Talbert _____
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CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing DEFENDANT'S RESPONSE TO PLAINTIFF'S SUPPLEMENTAL BRIEF REGARDING REMEDY with the clerk of the court for the United States District Court for the District of Columbia using the electronic case filing system of the court. The electronic case filing system sent a "Notice of Electronic Filing" to the following attorneys of record:

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Jeffrey R. Holmstead
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/s/ *Stephanie J. Talbert*
STEPHANIE J. TALBERT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 1 2011

THE ADMINISTRATOR

MEMORANDUM

SUBJECT: Temporary Delegation of Authority to Authorize Assistant Administrator for the Office of Air and Radiation to Issue Decision on Prevention of Significant Deterioration Permit Application submitted by Avenal Power Center LLC

TO: Gina McCarthy
Assistant Administrator
Office of Air and Radiation

I hereby grant the assistant administrator for the Office of Air and Radiation the authority under section 165 of the Clean Air Act and U.S. Environmental Protection regulations at 40 CFR § 52.21 and 40 CFR Part 124 to issue a final permit decision on the application for a Prevention of Significant Deterioration (PSD) submitted to the EPA in February 2008 by Avenal Power Center LLC. This application seeks a permit to construct a 600 MW (net) electric generating facility in Kings County, California, consisting of two GE 7FA combustion turbines generators, two heat recovery steam generators, one steam turbine generator and associated equipment.

As to the procedures in 40 CFR Part 124, this delegation authorizes the assistant administrator for the Office of Air and Radiation to exercise authority applicable to PSD permit applications that is assigned to the regional administrator under the terms of 40 CFR Part 124. This includes the authority to issue a final permit decision under section 40 CFR § 124.15 and to take any other action assigned to a regional administrator under Part 124 that the assistant administrator determines is necessary to reach a final permit decision on the permit application described above. This delegation does not authorize the assistant administrator for the Office of Air and Radiation to exercise authority provided in section 124.19 of the regulations to consider any petition for review of the final permit decision, but authorizes the assistant administrator to publish notice of final agency action pursuant to section 124.19(f)(2).

This temporary delegation of authority will remain in effect for one year from the date of approval unless extended or superceded by a subsequent delegation(s). This authority may not be redelegated further.

References: Delegation 7-24.

Lisa P. Jackson

CLEAN AIR ACT

7-10. Approval/Disapproval of State Implementation Plans

1. AUTHORITY.

a. To propose or take final action on any State implementation plan under Section 110 of the Clean Air Act.

b. To propose or take final action on any request to redesignate an area under Section 107(d) of the Clean Air Act.

c. To propose or take final action on any standard of performance plan under Section 111(d) of the Clean Air Act.

2. TO WHOM DELEGATED. Regional Administrators.

3. LIMITATIONS.

a. This delegation does not apply to any Federal Register notice taking final action on a State implementation plan submittal or redesignation request for which adverse comments were received and for which the Office of General Counsel was not provided an opportunity for review.

b. This delegation does not apply to proposed or final federal register notices that establish an alterative interpretation from any established agency policies where these interpretations have not been reviewed through the consistency process described in the SIP Improvement Workgroup Final Report dated April 1995.

4. REDELEGATION AUTHORITY. This authority may not be redelegated.

5. ADDITIONAL REFERENCES.

a. Section 107(d) of the Clean Air Act, 42 U.S.C. §7407(d), as amended by the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399.

b. Section 110 of the Clean Air Act, 42 U.S.C. §7410, as amended by the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399, 2404.

c. Section 301(a)(1) of the Clean Air Act, 42 U.S.C. §7601(a)(1), as amended by the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399, 2467.

d. Section 111(d) of the Clean Air Act, 42 U.S.C. §7411(d), as amended by the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399, 2467.

EXHIBIT 14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 13, 2010

David Warner
Director of Permit Services
San Joaquin Valley Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Re: EPA Comments on Project Number C-1100751 for Avenal Power Center LLC (08-AFC-01)

Dear Mr. Warner:

Thank you for the opportunity to comment on San Joaquin Valley Air Pollution Control District's (SJVAPCD's) Revised Preliminary Determination of Compliance (PDOC) for Avenal Power Center LLC, Project Number C-1100751. We appreciate SJVAPCD providing an extension through Monday, September 13 for public comments. Our comments reference federal applicable requirements based on annual emission estimates, compliance demonstration requirements, and the air quality impact analysis.

In addition, consistent with the requirements of Title VI of the Civil Rights Act of 1964, EPA recommends that the District take reasonable steps to ensure that individuals who may have limited ability to read, write, speak or understand English ("limited English proficiency" or "LEP") have meaningful access to its permitting process. (See "Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons," 69 Fed. Reg. 35602 (June 25, 2004)).

We look forward to working with you to address our comments prior to the issuance of the Final Determination of Compliance (FDOC). Please contact me or Shirley F. Rivera of my staff at (415) 972-3966 if you have any questions.

Sincerely,

Gerardo C. Rios
Chief, Permits Office

Enclosures

cc: Jim Rexroad, Avenal Power Center LLC
Michael Tollstrup, California Air Resources Board
Joseph Douglas, California Energy Commission
Eric Walther, Sierra Research

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EPA Comments on the Revised Preliminary Determination of Compliance (PDOC) for Avenal Power Center LLC, Project No. C-1100751 (08-AFC-01)

1. **Annual Emissions Estimates** – Applicable federal requirements include thresholds for defining a major source of criteria pollutant emissions. For those sources where emission estimates and/or emission limits are relatively close to the federal thresholds, EPA encourages the following: (a) refinement of emissions and compliance demonstration methods that would ensure the thresholds would not be exceeded, and/or (b) a 5-10% buffer between the permitted emission limits and the federal threshold.

   The proposed annual NOx emission and CO emission limits are within a margin of less than 5% of the federal annual threshold limit for defining a new major stationary source under the Federal Prevention of Significant Deterioration (PSD) permit program. The threshold is 100 tons per year (tpy) each. If the limits of these pollutants are relaxed, the facility may be subject to the applicable federal requirements, such as the Federal Prevention of Significant Deterioration (PSD) permitting program (See 40 CFR Part 52.21(r)(4)).

2. **Major Source Applicability Determination** – In the "General Calculations" section (See PDOC Page 27, Section VII. C. 5), the District compares the annual emission estimates for regulated pollutants to the major source threshold to determine whether a pollutant is subject to major source requirements for NOx, CO, VOC, PM10, and SOx emissions. However, PM2.5, which also is a regulated pollutant, is not included. On May 8, 2008 EPA finalized regulations to implement the NSR program for PM2.5. A source that emits or has the potential to emit 100 tpy or more PM2.5 in a non-attainment area is defined as a major stationary source. (Reference 40 CFR Part 51, Appendix S.) We recommend the District include in its evaluation the PM2.5 emission estimates with a comparison to the federal nonattainment major source threshold of 100 tpy (or 200,000 pounds per year).

3. **NOx and CO Emission Estimates and Permit Limits** – The proposed annual emissions (calculated on a twelve consecutive month rolling basis) from the facility are 198,840 pounds per year (lb/yr) NOx and 197,928 lb/year CO. (See PDOC Page 27, Section VII. C. 5) These annual emissions are equivalent to 99.4 tpy of NOx emissions and 98.9 tpy of CO emissions, both of which are relatively close to the federal PSD permit program applicability threshold of 100 tpy for each of these pollutants. A proposed permit condition requiring that annual emissions not exceed these levels has been added to all combustion related equipment. The condition reads as follows:

   "Annual emissions from the facility, calculated on a twelve month rolling basis, shall not exceed any of the following limits: NOx (as NO_2) - 198,840 lb/year; CO - 197,928 lb/year."

   In a review of the post-project potential to emit annual emission estimates in Sections VII.C.2.i through C.2.iv. (See PDOC Pages 16-26) for each piece of equipment, we noted that the combustion turbine operations contribute the majority of NOx and CO emissions, with the following lb/year values (and estimated tpy) as follows:

Equipment	Description	NOx (lb/yr, tpy)	CO (lb/yr, tpy)
C-3953-10-1	turbine	143,951 lb/yr* 72 tpy	197,928 lb/yr* 98.9 tpy
C-3953-11-1	turbine	143,951 lb/yr* 72 tpy	197,928 lb/yr* 98.9 tpy
C-3953-12-1	boiler	513 lb/yr** 0.26 tpy	1,727 lb/yr** 0.86 tpy
C-3953-13-1	Diesel fire pump	108 lb/yr** 0.54 tpy	14 lb/yr** 0.01 tpy
C-3953-14-1	gas engine	95 lb/yr** 0.05 tpy	57 lb/yr** 0.03 tpy

Note: The estimated tons per year (tpy) have been rounded-up.
* Permit limit.
** Estimated emissions presented in PDOC evaluation.

Based on discussions with the District, we understand that in addition to the 12-month rolling facility NOx and CO emission limits that are equivalent to 99.4 tpy and 98.9, respectively, the District has made no other changes to the current FDOC permit conditions. These conditions include, but are not limited to, the following: continuous emissions monitoring of NOx and CO; compilation of emissions on a daily, monthly, 12 consecutive month rolling average, and annual basis; quarterly reporting of excess emissions; and acid rain (40 CFR Part 75) compliance requirements.

At this time, it appears the proposed requirements provide practically and federally enforceable conditions based on our understanding of the proposed revision. However, given that the NOx permit limit is within less than 1% of the PSD permit threshold and the CO limit is within 1.1% of the PSD permit threshold, we suggest that the District consider requiring Avenal to report more frequently emissions as the actual emissions approach or exceed 90% of the 12-consecutive month rolling average permit limit to assure the 100 tpy threshold is not exceeded.

4. **Analysis Regarding the Project's Emissions and the 1-Hour NO2 NAAQS** – The District concludes on pp. 53-54 of the PDOC that the proposed project will not cause a violation of an air quality standard for NOx, and refers to Appendix G. PDOC Appendix G contains some additional detail on the air quality impact analysis for the 1-hour NO2 NAAQS, effective April 12, 2010, and states that "the emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS." The following are our comments specific to PDOC Appendix G:

   a. **SIP-Approved Rule 2201** - The District's approved SIP, in District Rule 2201, Section 4.14.1, provides that modeling used for purposes of determining whether a new or modified stationary source's emissions will cause or make worse the violation of an Ambient Air Quality Standard shall be consistent with the requirements contained in the most recent edition of EPA's "Guideline on Air Quality Models." This EPA guideline is found in 40 CFR Part 51, Appendix W. EPA recently has had occasion to review and comment on the applicant's 1-hour NO2 NAAQS analysis for the project in the context of the applicant's pending PSD permit application before EPA.

      We recognize that certain aspects of the project for which Avenal seeks a minor source permit vary from the project for which it seeks a PSD permit, in particular, the proposed addition of a facility-wide NOx emissions limit of the equivalent of approximately 99.4 tons per year (tpy) to

the minor source permit. However, given that the equipment emitting NOx from the two projects has the same permitted hourly emission rates, many of the comments EPA made concerning consistency with 40 CFR Part 51, Appendix W in reviewing the applicant's 1-hour NO2 NAAQS analysis for PSD purposes may be relevant to the 1-hour NO2 NAAQS analysis for this minor source permit as well. We have attached for your consideration our comments dated June 15, 2010 and August 12, 2010 on the 1-hour NO2 NAAQS analysis that Avenal submitted to EPA for PSD purposes. We would be happy to discuss any issues or questions you may have concerning these comments.

b. **EPA Guidance Memorandum** - We also note that EPA recently issued guidance relating to modeling for the 1-hour NO2 NAAQS, with a cover memorandum entitled *Guidance Concerning Implementation of the 1-hour NO2 NAAQS for the Prevention of Significant Deterioration Program*, dated June 29, 2010, that included two attached guidance documents, one of which was entitled *Applicability of Appendix W Modeling Guidance for the 1-hour NO2 National Ambient Air Quality Standard,* dated June 28, 2010. We understand that the District is aware of this guidance, and we encourage the District to refer to this guidance for further detail on this subject.

c. **Assumptions and Decision-making Process** - The District's rationale in Appendix G for its conclusion that the project's emissions will not cause or contribute significantly to a violation of the 1-hour NO2 NAAQS is not clear from the documents provided. For example, the table addressing "Operational" scenarios on page 2 of Appendix G indicates that Tier 1 and Tier 2 impacts are each greater than the NO2 NAAQS limit, while Tier III and Tier IV impacts are each below the NO2 NAAQS limit. Furthermore, it is unclear how the modeling analysis meets the requirements of Appendix W (See Comment 4.a.) or whether the District intended to follow those requirements for the proposed permit revision. We recommend that the District provide a discussion of which Tier the District is relying upon to support its conclusion, the basis for selecting that Tier, and the modeling inputs, assumptions, etc. for that Tier.

EXHIBIT 15

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EPA Plan To 'Grandfather' Key Air Permit Raises Major Legal, Policy Queries

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EPA Administrator Lisa Jackson has taken the unusual step of granting air chief Gina McCarthy the authority to issue the final permit for the Avenal power plant -- the test case for whether EPA can "grandfather" pending permits from greenhouse gas (GHG) and nitrogen dioxide (NO2) limits -- but the move is raising major legal and policy questions because it circumvents EPA Region IX's usual role in the permitting process.

Among the key questions are whether Jackson has authority to give the permitting decision to McCarthy rather than Region IX Administrator Jared Blumenfeld, because regulations governing issuance of prevention of significant deterioration (PSD) permits grant authority only to regional administrators. Another question is whether EPA wants to nationalize the scope of the permit by having it approved through headquarters, sources say.

The Clean Air Act PSD permit at issue is for the proposed Avenal power plant in California. McCarthy in a Jan. 31 declaration said that the agency would grandfather the plant from GHG and NO2 limits that took effect long after Avenal submitted its permit application. McCarthy noted EPA would apply the policy to other permits in similar situations but has not yet identified them, except to say it expects it will affect 10 to 20 permits nationwide.

EPA Region IX deemed Avenal's permit application for the proposed power plant "complete" in March 2008 but has yet to issue a draft permit for the facility. A legal fight over the permit has raised questions over whether plants have to meet new air permitting limits that take effect during EPA review of a complete application.

Developers of the permit have filed a lawsuit in the U.S. District Court for the District of Columbia Circuit challenging EPA's earlier plan for Blumenfeld to issue the long-delayed permit this May as at odds with the Clean Air Act mandate that the administrator issue final permits within 12 months of receiving completed applications -- charges that will test whether the agency's Environmental Appeals Board (EAB) can continue to review air permits.

Avenal representatives filed a Feb. 15 brief arguing that even though EPA is willing to exempt the permit from GHG and NO2 requirements, the plan to have the region issue the permit means it would still be subject to EAB review, which the company says violates the air law (*Inside EPA*, Feb. 18).

In the suit, *Avenal Power Center LLC v. EPA*, Jackson filed a March 1 memo saying she is delegating to McCarthy the "authority applicable to PSD permit applications that is assigned to the regional administrator. . . . This includes the authority to issue a final permit decision . . . and to take any other action assigned to a regional administrator [under federal regulations] that the assistant administrator determines is necessary to reach a final permit decision on the permit application." *Relevant documents are available on InsideEPA.com.*

In response to the concerns in the Avenal brief about the potential for EAB review, Jackson strongly defends the board's right to consider any appeal of the final permit. "This delegation does not authorize" McCarthy "to consider any petition for review of the final permit decision," according to Jackson's legal memo.

The agency's reply brief in the case also offers solid support for EAB review, saying the appeal process is included in regulations that the court has no authority to change. Industry's reply to the agency's latest filing is due with the court by March 8. The court is slated to hear oral arguments in the case March 16.

Ahead of oral arguments, Jackson's decision to have McCarthy -- not Blumenfeld -- have final say on the Avenal permit is prompting a number of questions, including whether she has authority to do so, given that PSD regulations grant authority only to regional administrators, and the extent of the precedent EPA wants to set with the grandfathering approach outlined in the declaration by having the permit be issued by its air chief.

McCarthy's January declaration has already prompted broad legal and regulatory uncertainty as competing groups are jockeying to define the reach of the grandfathering policy, with EPA facing competing calls to define it broadly by industry and some states, and narrowly by environmentalists (*Inside EPA*, Feb. 18).

EAB in a Feb. 10 order already rejected Feb. 9 filings by Shell Oil and the American Petroleum Institute seeking to apply the *Avenal* exemption to the board's decision to remand two PSD permits EPA Region X had issued to Shell for offshore exploratory drilling in Alaska. EAB Dec. 30 required EPA to ensure that the new permits comply with all applicable standards in effect at the time, including a stricter NO2 ambient air standard and presumably GHG limits that kicked in Jan. 2.

In its order this month rejecting EPA and Shell's reconsideration motions EAB said in a footnote, "The board notes that the facts in *Avenal* are distinct from those before the board in these proceedings, and that Assistant Administrator McCarthy stated that, to be effective, the policy must be subject to a public comment process."

EPA says the reason McCarthy will issue the permit is to allow an exception to its NO2 policy, which explicitly prohibits grandfathering, according to a state source. "Letting Avenal grandfather will be an exception to that policy, so EPA thought it better for the [assistant administrator] to issue the permit," the source says.

EPA could not be reached for comment directly. But Jackson's decision to give McCarthy the authority is highly unusual, if it has ever occurred before, say former EPA officials, industry sources and activists.

One former EPA source says the move signals that EPA wants to nationalize the grandfathering issue teed up by the McCarthy declaration by having the decision come from headquarters, avoiding the potential for differing decisions by regions. But while the source believes EPA would have taken a careful look at its delegation authority prior to issuing the memo, the source notes it is possible questions may arise about Jackson's ability to transfer the permitting authority.

"If the regulations are clear that only the regional administrators have the power to issue permits, then I have some doubts the [EPA headquarters] administrator can delegate that judgment to someone else. On the other hand, if the regulations give the power to the administrator, and there are delegations that sent the power to the [regional administrators], then the administrator can re-delegate" to EPA's air chief, the source says.

The section of the Code of Federal Regulations (CFR) cited by Jackson in her memo filed with the court says "the regional administrator shall issue a final permit decision." But EPA in its filing also suggests it has authority to re-delegate that authority, citing the Clean Air Act section of its 1997 "Delegations Manual" which does not include PSD permits on a list of authorities granted to regional administrators that "may not be re-delegated."

One industry source calls Jackson's ability to delegate the Avenal permit decision to McCarthy "fuzzy" and says it could be "a good argument" in any future final permit challenge. "If that's what the regulations say . . . the administrator cannot alter them . . . without violating administrative law." There is no CFR section that deals with delegation, the source adds, raising prospects that Jackson's decision could face a legal challenge.

The move also violates internal EPA procedures to address disputes between regions and headquarters, which usually go through a process that is ultimately resolved by the deputy assistant administrator via a memo outlining agency policy, the source says. "Here, what it looks like is a different sort of process, where they said Region IX isn't making a decision so we'll make it at headquarters but not go through the formal process and just give it to Gina. . . . They have substituted the Gina McCarthy [declaration] for policy and delegated [up] to her level."

Another industry source says the shift raises questions about the appearance of the transfer, noting that making such a plant-specific permit decision "is not worth Gina McCarthy's time. It's kind of kooky."

One environmentalist calls the move "fishy" even if it is designed to allow an expedited or consistent decision for the Avenal permit and others subject to the grandfathering, given concerns about delays in issuing the permit. "It doesn't fully answer why the region couldn't just do the same thing. If you elevate it to Gina and she takes action, it gives it greater significance across the agency and sends a signal to all the regions that this is the agency policy, but that was already clearly signaled by" the declaration, which the source calls "a new policy broadly applicable regardless of the delegated entity issuing the permit."

The source adds that Region IX officials are unhappy with the McCarthy declaration. The source says the officials feel undercut by headquarters stepping in to grandfather the Avenal permit, when the regional staff were simply following EPA policy barring such a move -- policy they did not have authority to change. "I think it's an interesting question whether the administrator can unilaterally remove a regional administrator" from a permit decision, the source says, also calling it a question that could arise in a challenge of any final Avenal permit -- *Dawn Reeves*

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Applicability of the Federal Prevention of Significant Deterioration Permit Requirements to New and Revised National Ambient Air Quality Standards

FROM: Stephen D. Page, Director Stephen Page
Office of Air Quality Planning & Standards (C404-04)

TO: Air Division Directors and Deputies
Regions I - X

This memorandum responds to inquiries that we are receiving from parties who are currently developing or reviewing applications for Prevention of Significant Deterioration (PSD) permits under the Clean Air Act (CAA) requesting that the Office of Air and Radiation (OAR) provide guidance on the applicability of PSD permitting requirements to a newly promulgated or revised National Ambient Air Quality Standard (NAAQS or standards). Accordingly, I am writing to reiterate the Environmental Protection Agency's (EPA's) existing interpretation of the relevant provisions of the CAA and EPA regulations, and EPA's position on how these requirements apply under the federal PSD program.

General Applicability of PSD Permit Requirements to New or Revised NAAQS

The CAA requires that proposed new and modified major stationary sources must, as part of the issuance of a permit to construct, demonstrate that emissions from the new or modified major source –

> will not cause, or contribute to, air pollution in excess of any
> (A) maximum allowable increase or maximum allowable concentration for any pollutant in any area to which this part applies…;
> (B) national ambient air quality standard in any air quality control region; or
> (C) any other applicable emission standard or standard of performance under this chapter;

CAA §165(a)(3). Similarly, EPA's federal PSD program regulations at 40 CFR 52.21(k)(1) require proposed sources and modifications to demonstrate that their allowable emissions will not cause or contribute to a violation of "any national ambient air quality standard in any air quality control region."

EPA generally interprets the CAA and EPA's PSD permitting program regulations to require that each final PSD permit decision reflect consideration of any NAAQS that is in effect at the time the permitting authority issues a final permit. As a general matter, permitting and licensing decisions of regulatory agencies must reflect the law in effect at the time the agency makes a final determination on a pending application. See *Ziffrin v. United States*, 318 U.S. 73, 78 (1943); *State of Alabama v. EPA*, 557 F.2d 1101, 1110 (5th Cir. 1977); *In re: Dominion Energy Brayton Point, LLC*, 12 E.A.D. 490, 614-616 (EAB 2006); *In re Phelps Dodge Corp.*, 10 E.A.D. 460, 478 n. 10 (EAB 2002).

Consistent with such interpretations, EPA has previously concluded that the relevant provisions cover any NAAQS that is in effect at the time of issuance of any permit. For example, in the context of applying the PSD provisions to the NAAQS for particulate matter less than 2.5 micrometers ($PM_{2.5}$), EPA has stated that "section 165 of the CAA suggests that PSD requirements become effective for a new NAAQS upon the effective date of the NAAQS." 73 FR 28321, 28340, (May 16, 2008); 70 FR 65984, 66043, (Nov. 1, 2005). That observation was based, in part, on EPA guidance for implementing the $PM_{2.5}$ NAAQS that the Agency issued shortly after those standards first became effective in 1997. John Seitz, EPA Office of Air Quality Planning and Standards, "Interim Implementation for the New Source Review Requirements for $PM_{2.5}$" (Oct. 23, 1997). Both the 1997 guidance and EPA's final rule addressing the application of the PSD program to $PM_{2.5}$ explained that section 165(a)(1) of the CAA provides that no new or modified major source may be constructed without a permit that meets all the requirements in section 165(a). In addition, those documents observe that one such requirement is the provision in section 165(a)(3) which says that emissions from such source may not cause or contribute to a violation of any NAAQS. The October 23, 1997 guidance provided an interim policy for assuring compliance with the requirements for $PM_{2.5}$, after observing that the "new NAAQS for $PM_{2.5}$, became effective on September 16, 1997." In addition, the guidance expressed EPA's intent to provide a separate memorandum that would address "EPA's views on implementing the ozone and PM_{10} NAAQS during the interim period following *the effective date* of the new 8-hour ozone and revised PM_{10} NAAQS." [Emphasis added.] Those statements made shortly after the promulgation of new NAAQS in 1997 are consistent with the view expressed in the final rule for $PM_{2.5}$ in 2008 that "PSD requirements become effective for a new NAAQS upon the effective date of the NAAQS."

Additional precedent for this interpretation can be found in the 1987 final rule titled "Regulations for Implementing Revised Particulate Matter Standards" (52 FR 24672. July 1, 1987) issued at the time EPA established new PM_{10} standards. In that rule, EPA stated that "once the PM_{10} NAAQS becomes effective, EPA will be responsible for the protection of the PM_{10} NAAQS as well as the review of PM_{10} as a regulated pollutant." 52 FR at 24682. In support of that conclusion, EPA observed that the federal

PSD regulations at 40 CFR 52.21(k)(1) contain "a general provision requiring prospective PSD sources to demonstrate that their potential emissions will not cause or contribute to air pollution in violation of 'any' NAAQS." Id. at 24682 n. 9. Based on that analysis, EPA concluded that "[w]hen the revised NAAQS for particulate matter becomes effective, each PSD application subject to EPA's Part 52 PSD regulations, and not eligible to be grandfathered under today's action, must contain a PM_{10} NAAQS analysis." 52 FR at 24684.

As illustrated above, under certain circumstances EPA has previously allowed proposed new major sources and major modifications that have submitted a complete PSD permit application before the effective date of new requirements under the PSD regulations, but have not yet received a final and effective PSD permit, to continue relying on information already in the application rather than immediately having to amend applications to demonstrate compliance with the new PSD requirements. In the transition from the total suspended particulate NAAQS to the PM_{10} NAAQS, EPA explicitly established rule provisions that allowed proposed new major sources and major modifications that had submitted a complete PSD permit application before the effective date of new PM_{10} NAAQS, but that had not yet received a final and effective federally-issued PSD permit, to continue relying on information already in the submitted application rather than immediately having to amend applications to demonstrate compliance with the new PSD requirements. *See*, e.g., 40 CFR 52.21(i)(1)(x). EPA has adopted similar provisions pertaining to new or revised PSD increments. 40 CFR 52.21(i)(9)-(10). Those proposed sources and modifications meeting these transition requirements were "grandfathered" or exempted from the new PSD requirements that would otherwise have applied to them. Thus, while we have included the necessary provisions to grandfather sources from new requirements under certain circumstances, we have not always chosen to do so for NAAQS revisions in general.

Applicability of the New 1-Hour NO_2 NAAQS to Existing Permit Applications

On January 22, 2010, the EPA Administrator signed a final rule containing a new NAAQS for nitrogen dioxide (NO_2) based on a 1-hour averaging time. That final rule was published in the Federal Register on February 9, and will become effective on April 12, 2010. EPA did not promulgate a grandfathering provision related to the 1-hour NO_2 NAAQS for permits in process but not yet issued as of April 12, 2010. Accordingly, permits issued under 40 CFR 52.21 on or after April 12, 2010, must contain a demonstration that the source's allowable emissions will not cause or contribute to a violation of the new 1-hour NO_2 NAAQS. In the case of the new NO_2 1-hour NAAQS, while the short-term standard is new, the pollutant is not, having been considered a regulated pollutant for many years pursuant to the NO_2 annual NAAQS. There are no exceptions under 40 CFR 52.21 in this case because as noted above, EPA has not adopted a grandfathering provision applicable to the 1-hour NO_2 NAAQS that would enable the required permit to be issued to prospective sources in the absence of such ambient air quality demonstration.

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