

**PART 71 FEDERAL OPERATING PERMIT  
DRAFT STATEMENT OF BASIS**

**South Point Energy Center  
Permit No. FM-OP 02-01**

**1. Facility Information**

a. Permittee

South Point Energy Center (SPEC)  
3779 Courtwright Rd.  
P.O. Box 5619  
Mohave Valley, AZ 86446

b. Facility location

The South Point Energy Center is located on the reservation of the Fort Mojave Indian Tribe in Bullhead City, AZ

c. Contact information

Facility Contact and Responsible Official: Robert H. Holsinger (928) 346-7000

d. Description of operations, products

The facility is a 500 MW natural gas fired, two-on-one combined cycle electrical generating plant. The primary power generating equipment consists of two combined cycle combustion turbine (CCCT) generating sets (Westinghouse Model 501FD) and two duct fired heat recovery steam generators (HRSG) feeding a single steam turbine generator. The turbines are exclusively natural gas-fired.

e. Permitting and/or construction history

EPA Region IX issued Prevention of Significant Deterioration (PSD) permit AZ-98-01 for the construction of the facility on May 24, 1999. Initial startup occurred in March of 2001.

EPA received a letter from the applicant dated October 4, 2002, in which SPEC requested a modification of the PSD permit to increase the emissions limit for carbon monoxide during startup conditions. The facility proposed to revise PSD

permit condition X.E.6 to increase the startup limit from 1200 lb/hr to 3000 lb/hr and to limit the total startup emissions to 4800 pounds during any startup period. This change constitutes a minor modification under PSD because it would not cause a significant increase in emissions. The PSD permit already contains a condition (E.1) limiting the facility's annual CO emissions to 1297.6 tpy, which would not change. CEMS data for this facility demonstrates that they cannot reasonably meet the 1200 lb/hr startup limit on a consistent basis and that 3000 lb/hr is a more reasonable limit for this facility. Finally, SPEC provided an additional ambient air quality to demonstrate that this increased limit would not lead to a violation of the 1-hour or 8-hour NAAQS for CO.

After reviewing SPEC's amendment request and all of the submitted materials, including the CEMS data, and the revised ambient air quality impact analysis, EPA has determined that the requested changes meet our requirements for a minor modification, would not lead to a violation of the national ambient air quality standards and would have no significant impacts on air quality. Therefore, at the same time that EPA is proposing the initial title V permit for SPEC, we are also proposing a minor modification of the May 24, 1999 PSD permit. The modification consists of revising two conditions of the PSD permit, which have been incorporated into the title V permit in conditions II.A.2 (Table X-E-2) and II.A.6. During the public comment period, EPA seeks comments on both the title V permit and the minor modification of the PSD permit.

f. Table 1. Emission-generating units and activities

<b>Emission Unit I.D. No.</b>	<b>Unit Description</b>	<b>Associated Control Equipment</b>
E/U 01	Combined Cycle System 1 (natural gas-fired turbine and heat recovery system generator)	selective catalytic reduction (SCR)
E/U 02	Combined Cycle System 2 (natural gas-fired turbine and heat recovery system generator)	selective catalytic reduction (SCR)
E/U 06	Mechanical-draft cooling tower	drift eliminator

g. Table 2. Potential to emit (in tons/year)

	<b>Pollutant</b>					
<b>Unit</b>	<b>NOx</b>	<b>VOC</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>CO</b>	<b>HAP</b>

E/U 01	135.3	219.49	19.9	72	648	5.23
E/U 02	135.3	219.49	19.9	72	648	5.23
E/U 06	n/a	n/a	n/a	12.7	n/a	0
<b>Totals</b>	<b>270.7</b>	<b>438.97</b>	<b>39.9</b>	<b>186.5</b>	<b>1297</b>	<b>10.46</b>

The ancillary equipment at the facility (emergency generator and diesel fire pump) add marginal amounts (less than one ton per year for each criteria pollutant, and less than one hundredth of a ton in the case of SO<sub>2</sub>) to these totals.

**2. Tribe Information**

a. General

The reservation of the Fort Mojave Indian Tribe is located adjacent to the Colorado River, and covers 23,699 acres in Arizona and 5,582 acres in Nevada. The reservation has a population of approximately 1,120 people.

b. Local air quality and attainment status

All areas of the Fort Mojave Indian Reservation are currently designated as attainment or unclassifiable for all pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established.

**3. Applicable Requirements**

a. PSD permit AZ-98-01

The PSD permit issued to the facility contains Best Available Control Technology (BACT) emission limits for NO<sub>x</sub>, CO, PM-10, and VOC, and monitoring, reporting, and record-keeping requirements.

All conditions of the PSD permit have been incorporated into the title V permit. When PSD conditions contain references to conditions in “this permit” or “this Authority to Construct,” permit reviewers are advised that the condition numbers refer to the PSD permit, not the title V permit.

b. New Source Performance Standard (NSPS) for Stationary Gas Turbines (40 CFR Part 60)

The turbines are subject to the 40 CFR Part 60, Subpart GG, and the associated NSPS Subpart A General Provisions. Subpart GG contains emission limits for NO<sub>x</sub> and SO<sub>2</sub>, monitoring, reporting, and record-keeping requirements.

- c. New Source Performance Standard (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR Part 60)

The duct burners are subject to the 40 CFR Part 60, Subpart Dc, and the associated NSPS Subpart A General Provisions. The facility is only permitted to fire its turbines and duct burners on natural gas. Since the emission limits, monitoring, reporting, and record-keeping requirements of Subpart Dc only apply to facilities that burn coal, oil, or wood, there are no requirements from Subpart Dc that apply to SPEC.

- d. Acid Rain Regulations (40 CFR Parts 72 - 76)

SPEC is subject to the acid rain requirements of title IV of the Clean Air Act. The Phase II acid rain permit, which is being combined with the title V permit, requires the facility to have allowances for all the SO<sub>2</sub> it emits in each year.

- e. Stratospheric Ozone and Climate Protection (40 CFR Part 82)

Based on its application, SPEC does not currently engage in the activities regulated under this provision. Including this term in the permit minimizes the need to reopen the permit if the facility does any maintenance, service, repair, or disposal, of any equipment containing chlorofluorocarbons (CFCs), or contracts with someone to do this work.

- f. Chemical Accident Prevention Program (40 CFR Part 68 )

The Chemical Accident Prevention Program requires sources who use or store regulated substances above a certain threshold to develop and submit a risk management plan to prevent accidental releases.

- g. NESHAP 40 CFR Part 61, Subpart M - Demolition or Renovation Activity

Based on SPEC's application, the facility is not currently engaged in the activities regulated under this provision. If SPEC conducts any demolition or renovation activity, the permittee must assure that the project is in compliance with the federal rules governing asbestos including the requirement to conduct an inspection for the presence of asbestos. Including this term in the permit minimizes the need to reopen the permit if SPEC ever conducts any demolition or renovation activity.

- h. Other Requirements

i Compliance Assurance Monitoring

Compliance Assurance Monitoring (CAM) applies to emission units with control devices that are subject to an emission limit and have a pre-control potential to emit greater than the major source threshold. 40 CFR Part 64.2(b)(1)(vi) provides that emission limitations or standards for which a title V permit specifies a continuous compliance method are exempt from Part 64 requirements. Since the title V permit requires the use of a continuous emissions monitoring system (CEMS) as a compliance determination method in condition II.C.1, SPEC is exempt from 40 CFR Part 64 CAM requirements.

i. Table 3. Incorporation of Applicable Requirements into Part 71 Permit

<b>Requirement</b>	<b>Condition/Section</b>	<b>Condition in Pt. 71 Permit</b>	<b>Description/Notes</b>
40 CFR 60 NSPS Subpart A	60.1	n/a	applicability (no requirements)
	60.2	n/a	definitions (no requirements)
	60.3	n/a	units and abbreviations (no requirements)
	60.4(a)	II.F.1	submit reports to EPA Regional office
	60.4(b)	n/a	submit reports to delegated agencies (Tribe not delegated authority for NSPS)
	60.5	n/a	applicability determinations (places requirements on EPA, not the facility)
	60.6	n/a	review of plans (places requirements on EPA, not the facility)
	60.7(a)	II.F.9	notification of construction or reconstruction
	60.7(b)	II.F.2	records of startup, shutdown, malfunction
	60.7(c)	n/a	CEMS reporting (facility does not have CEMS)
	60.7(d)	n/a	report format for CEMS reporting (facility does not have CEMS)

<b>Requirement</b>	<b>Condition/ Section</b>	<b>Condition in Pt. 71 Permit</b>	<b>Description/Notes</b>
	60.7(e)	n/a	reporting frequency (standard does not require reporting more than semiannually)
	60.7(f)	II.D.1	maintain monitoring records (excluding requirements for CEMS)
	60.7(g)	n/a	notification required by State/local agency (no such notification required)
	60.7(h)	n/a	disclaimer that Subpart may clarify/make inapplicable any General Provisions
	60.8	II.C.1	initial performance test
	60.9	II.F.3	availability of information
	60.10	n/a	state authority (no requirements)
	60.11(a)	II.F.4	compliance with non-opacity standards
	60.11(b)	n/a	compliance with opacity standards (facility not subject to opacity standard)
	60.11(c)	n/a	times when opacity standards apply (facility not subject to opacity standard)
	60.11(d)	II.F.5	good practice to minimize emissions
	60.11(e)	n/a	compliance with opacity standards (facility not subject to opacity standard)
	60.11(f)	n/a	special provisions in Subpart supersede General Provisions (no requirements)
	60.11(g)	II.F.6, IV.B.2	credible evidence
	60.12	II.F.7	circumvention
	60.13	n/a	CEMS requirements (facility does not have CEMS)
	60.14	n/a	applies to modification of affected facilities

<b>Requirement</b>	<b>Condition/ Section</b>	<b>Condition in Pt. 71 Permit</b>	<b>Description/Notes</b>
	60.15	n/a	applies to reconstruction of affected facilities
	60.16	n/a	priority list (no requirements)
	60.17	n/a	incorporation of test methods by reference
	60.18	n/a	requirements for flares (facility does not use flares to comply with an NSPS)
	60.19	II.F.8	general notification and reporting
40 CFR 60 NSPS Subpart GG	60.330	n/a	applicability (no requirements)
	60.331	n/a	definitions (no requirements)
	60.332	II.A.3	standard for nitrogen oxides
	60.333	II.B.1	standard for sulfur oxides (fuel sulfur standard)
	60.334(a)	n/a	Monitoring of water, fuel for NO <sub>x</sub> control (The turbines do not use water to control NO <sub>x</sub> )
	60.334(b)	II.C.16 through II.C.21	monitoring of fuel sulfur and nitrogen content (custom monitoring schedule)
	60.334(c)	II.C.18, II.E.1	excess emissions
	60.335(a)	n/a	fuel nitrogen content monitoring; ( not required; custom monitoring schedule)
	60.335(b)	II.C.6	initial performance test requirement
	60.335(c)	n/a	NO <sub>x</sub> , SO <sub>2</sub> emission rate equations (NO <sub>x</sub> equation not used since emission limit subsumed to more stringent BACT limit. Equation for SO <sub>2</sub> not included since facility will comply with fuel sulfur standard)
	60.335(d)	II.C.15	fuel sulfur test method

<b>Requirement</b>	<b>Condition/ Section</b>	<b>Condition in Pt. 71 Permit</b>	<b>Description/Notes</b>
	60.335(e)	II.C.21 and II.C.14	fuel nitrogen and sulfur testing
	60.335(f)	n/a	alternative to NOx emission rate equation (option for turbine manufacturers only)
PSD permit AZ- 98-01	section I	IV.M.7	expiration of PSD permit
	section II	III.K.1 and III.K.2	notification of commencement of construction and startup
	section III	II.B.8	facility operation
	section IV	II.E.2 and III.H	malfunction
	section V	IV.J	right of entry
	section VI	IV.K.2	transfer of ownership
	section VII	IV.F	severability
	section VIII	III.I	other applicable regulations
	section IX	III.J	Paperwork Reduction Act
	section X	multiple conditions in sections: II.A II.B II.C II.D II.E II.F II.G	special conditions: certification air pollution control equipment fuel use and operation conditions continuous monitoring systems emission limits performance tests recordkeeping and reporting NSPS agency notification
Chemical Accident Prevention Program	40 CFR Part 68	III.E.	CAA 112(r)(1) requirements

<b>Requirement</b>	<b>Condition/ Section</b>	<b>Condition in Pt. 71 Permit</b>	<b>Description/Notes</b>
Asbestos NESHAP	40 CFR 61, Subpart M	III.F	Requirements for demolition and renovation at facilities containing asbestos
Stratospheric Ozone Protection	40 CFR 82	III.D	Requirements for treatment of class I and II substances

#### **4. Streamlining NO<sub>x</sub> Emission Limits**

The two gas turbines at the facility are subject to 40 CFR Part 60, Subpart GG, Standards of Performance for Stationary Gas Turbines. The NO<sub>x</sub> limit required by Subpart GG for a turbine with a heat input at peak load greater than 100 million Btu/hour is 75 ppm (40 CFR 60.332(a)(1)). In addition, SPEC is also subject to a BACT emission limit for NO<sub>x</sub> from its PSD permit. This limit, 3.0 ppm<sub>dv</sub> at 15 percent oxygen, is more stringent than what Subpart GG requires. Therefore, EPA is streamlining the two emission limits, and subsuming the 75 ppm NSPS limit to the more stringent BACT limit.

Both the PSD permit and the NSPS General Provision require that an initial source test be conducted within 60 days after achieving the maximum production rate of the affected emission units, but no later than 180 days after the initial startup of equipment. The NSPS does not require any on-going performance testing for NO<sub>x</sub>. The PSD permit requires the facility to maintain and operate a CEMS, and to conduct an annual performance test for NO<sub>x</sub>. Thus the monitoring associated with the streamlined emission limit is more stringent than the monitoring required by the subsumed NSPS emission limit, and will be retained in the title V permit.

#### **5. Monitoring**

With one exception, the monitoring in the title V permit is identical to the monitoring in the EPA-issued PSD permit. However, since the title V permit also incorporates the requirements of the NSPS for gas turbines, the permit must include the NSPS monitoring requirements. The NSPS requires either daily fuel monitoring or a custom fuel monitoring schedule. Therefore, in accordance with 40 CFR 60.334(b)(2), EPA has added a custom fuel monitoring schedule. This schedule is based on the recommendations in EPA's August 14, 1987 memorandum, "Authority for Approval of Custom Fuel Monitoring Schedules under NSPS Subpart GG." The schedule requires that sulfur monitoring initially be conducted twice monthly for six months. If SPEC demonstrates consistent compliance, the frequency of sample analysis will be reduced to twice per year. The monitoring in the permit is summarized in Table 4 below.

Table 4. Monitoring in the title V permit

Requirement	Requirement Condition #	Monitoring from Underlying Requirement	Monitoring Added to Part 71 Permit	Monitoring Condition #
NO <sub>x</sub> limits	II.A.1 through II.A.3	CEMS & annual source test	none	II.C.1 & 6
CO limits	II.A.1, 2 & 4	CEMS & annual source test	none	II.C.1 & 6
SO <sub>2</sub> limits	II.A.1 and 2	annual source test	none	II.C.6
fuel sulfur content limit	II.B.1	daily (or custom fuel monitoring schedule)	custom fuel monitoring schedule	II.C.16 through II.C.21
VOC limits	II.A.1 and 2	annual source test	none	II.C.6
PM-10 limits	II.A.1, 2 & 5	annual source test	none	II.C.6

## 6. Use of All Credible Evidence

Determinations of deviations, continuous or intermittent compliance status, or violations of the permit are not limited to the testing or monitoring methods required by the underlying regulations or this permit; other credible evidence (including any evidence admissible under the Federal Rules of Evidence) must be considered by the source and EPA in such determinations.

## 7. EPA Authority

Title V of the Clean Air Act requires that EPA promulgate, administer, and enforce a Federal operating permits program when a State does not submit an approvable program within the time frame set by title V or does not adequately administer and enforce its EPA-approved program. On July 1, 1996 (61 FR 34202), EPA adopted regulations codified at 40 CFR 71 setting forth the procedures and terms under which the Agency would administer a Federal operating permits program. These regulations were updated on February 19, 1999 (64 FR 8247) to incorporate EPA's approach for issuing Federal operating permits to covered stationary sources in Indian country.

As described in 40 CFR 71.4(a), EPA will implement a Part 71 program in areas where a State, local, or Tribal agency has not developed an approved Part 70 program. Unlike States, Indian Tribes are not required to develop operating permits programs,

though EPA encourages Tribes to do so. See, e.g., Indian Tribes: Air Quality Planning and Management (63 FR 7253, February 12, 1998) (also known as the “Tribal Authority Rule”). Therefore, within Indian country, EPA believes it is generally appropriate that EPA administer and enforce a Part 71 Federal operating permits program for stationary sources until Tribes receive approval to administer their own operating permits programs.

SPEC is located within the boundaries of reservation of the Fort Mojave Indian Tribe. Consequently, jurisdiction over the source lies with the Tribe and with EPA. Because the Tribe does not have an approved Part 70 program, EPA is issuing the permit under Part 71.

## **8. Endangered Species Act**

Pursuant to Section 7 of the Endangered Species Act (ESA), 16 U.S.C. § 1536, and its implementing regulations at 50 CFR. Part 402, EPA is required to ensure that any action authorized, funded, or carried out by EPA is not likely to jeopardize the continued existence of any Federally-listed endangered species or threatened species or result in the destruction or adverse modification of such species’ designated critical habitat. The title V permit EPA is issuing to SPEC does not authorize the construction of new emission units, or emission increases from existing units, nor does it otherwise authorize any other physical modifications to the facility or its operations. Therefore, EPA has concluded that the issuance of this permit will have no effect on listed species or their critical habitat.

## **9. Public participation**

### **a. Public Notice.**

As described in 40 CFR 71.11(a)(5), all Part 71 draft operating permits shall be publicly noticed and made available for public comment. The public notice of permit actions and public comment period is described in 40 CFR 71(d).

There is a 30 day public comment period for actions pertaining to a draft permit. Public notice will be given for this draft permit by mailing a copy of the notice to the permit applicant, the Fort Mojave Indian Tribe, the affected states (Arizona and Nevada), and local air pollution control agencies. A copy of the notice will also be provided to all persons who have submitted a written request to be included on the mailing list. If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued in Indian Country, please send your name and address to Roger Kohn at the address listed below:

Roger Kohn (AIR-3))  
U.S. Environmental Protection Agency, Region IX

75 Hawthorne St.  
San Francisco, CA 94105

E-mail: kohn.roger@epa.gov

Public notice will also be published in a daily or weekly newspaper of general circulation in the area affected by this source.

b. Opportunity for Comment

Members of the public may review a copy of the draft permit prepared by EPA, this statement of basis for the draft permit, the application, and all supporting materials submitted by the source at:

U.S. EPA, Region IX Library  
75 Hawthorne St.  
San Francisco, CA 94105

Copies of the draft permit and this statement of basis can also be obtained at no cost from EPA's website [<http://www.epa.gov/region09/air/permit/epssdata.htm>] or by contacting Roger Kohn at the EPA address listed above or by telephone at 415-972-3973. All documents will be available for review at the EPA Region IX office indicated above during regular business hours.

If you have comments on the draft permit, you must submit them during the 30 day public comment period. All comments received during the public comment period and all comments made during a public hearing will be considered in arriving at a final decision on the permit. The final permit is a public record that can be obtained by request. A statement of reasons for changes made to the draft permits and responses to comments received will be sent to persons who commented on the draft permit.

If you believe that any condition of the draft permit is inappropriate, you must raise all reasonably ascertainable issues and submit all arguments supporting your position by the end of the comment period. Any supporting documents must be included in full and may not be incorporated by reference, unless they are already part of the administrative records for these permits or consist of tribal, state or federal statutes or regulations, or other generally available referenced materials.

c. Opportunity to Request a Hearing

A person may submit a written request for a public hearing to Roger Kohn, at the address listed in section 9.a. above, by stating the nature of the issues to be raised at the public hearing. Based on the number of hearing requests received, EPA will hold a

public hearing whenever it finds there is a significant degree of public interest in a draft operating permit. If a public hearing is held, EPA will provide public notice of the hearing and any person may submit oral or written statements and data concerning the draft permit.

d. Mailing List

If you would like to be added to our mailing list to be informed of future actions on this or other Clean Air Act permits issued in Indian Country, please send your name and address to Roger Kohn at the address listed above.