



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765

Title Page
Facility I.D.#: 003417
Revision #: 12
Date: September 04, 2008

FACILITY PERMIT TO OPERATE

**AIR PROD & CHEM INC
23300 S ALAMEDA ST
CARSON, CA 90810**

NOTICE

IN ACCORDANCE WITH RULE 206, THIS PERMIT TO OPERATE OR A COPY THEREOF MUST BE KEPT AT THE LOCATION FOR WHICH IT IS ISSUED.

THIS PERMIT DOES NOT AUTHORIZE THE EMISSION OF AIR CONTAMINANTS IN EXCESS OF THOSE ALLOWED BY DIVISION 26 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA OR THE RULES OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT. THIS PERMIT SHALL NOT BE CONSTRUED AS PERMISSION TO VIOLATE EXISTING LAWS, ORDINANCES, REGULATIONS OR STATUTES OF ANY OTHER FEDERAL, STATE OR LOCAL GOVERNMENTAL AGENCIES.

Barry R. Wallerstein, D. Env.
EXECUTIVE OFFICER

By 
for Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

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FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION A: FACILITY INFORMATION

LEGAL OWNER &/OR OPERATOR: AIR PROD & CHEM INC

LEGAL OPERATOR (if different than owner):

EQUIPMENT LOCATION: 23300 S ALAMEDA ST
CARSON, CA 90810-1921

MAILING ADDRESS: 23300 S ALAMEDA ST
CARSON, CA 90810

RESPONSIBLE OFFICIAL: JANICE ZOGELMANN

TITLE: PLANT MANAGER

TELEPHONE NUMBER: (310) 847-7300

CONTACT PERSON: JIM REEBEL

TITLE: ENVIRONMENTAL SPECIALIST

TELEPHONE NUMBER: (310) 847-7300

TITLE V PERMIT ISSUED: September 04, 2008

TITLE V PERMIT EXPIRATION DATE: September 03, 2013

TITLE V	RECLAIM
YES	NOx: YES SOx: NO CYCLE: 1 ZONE: COASTAL

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

The annual allocation of NO_x RECLAIM Trading Credits (RTCs) for this facility is calculated pursuant to Rule 2002. Total NO_x emission shall not exceed such annual allocations unless the operator obtains RTCs corresponding to the facility's increased emissions in compliance with Rules 2005 and 2007.

The level of Starting Allocation plus Non-Tradable Credits used to determine compliance with Rule 2005(c)(4) and applicability of Rule 2005(e) - Trading Zone Restrictions is listed on the last page of this Section.

The following table lists the annual allocations that were issued to this facility and the amounts of RTCs held by this facility on the day of printing this Section.

RECLAIM POLLUTANT ANNUAL ALLOCATION (POUNDS)

Year		Zone	NO _x RTC Initially Allocated	NO _x RTC ¹ Holding as of 09/04/08 (pounds)	Non-Tradable ² Non-Usable RTCs (pounds)
Begin (month/year)	End				
7/2005	6 /2006	Coastal	0	7879	0
1/2006	12/2006	Coastal	0	0	0
7/2006	6 /2007	Coastal	0	7622	0
1/2007	12/2007	Coastal	0	479	0
7/2007	6 /2008	Coastal	0	11527	0
1/2008	12/2008	Coastal	0	7211	227
7/2008	6 /2009	Coastal	0	26158	825
1/2009	12/2009	Coastal	0	6983	455
7/2009	6 /2010	Coastal	0	25333	1650
1/2010	12/2010	Coastal	0	6756	682
7/2010	6 /2011	Coastal	0	24508	2475

Footnotes:

1. This number may change due to pending trades, emissions reported under Quarterly Certification of Emissions Report (QCER) and Annual Permit Emission Program (APEP) Report required pursuant to Rule 2004, or deductions made pursuant to Rule 2010(b). The most recent total RTC information can be obtained from the District's RTC Listing.
2. The use of such credits is subject to restrictions set forth in paragraph (f)(1) of Rule 2002.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION B: RECLAIM ANNUAL EMISSION ALLOCATION

The annual allocation of RECLAIM Trading Credits (RTCs) for this facility is calculated pursuant to Rule 2002. If the facility submits a permit application to increase an annual allocation to a level greater than the facility's Starting Allocation plus Non-Tradable Credits as listed below, the application will be evaluated for compliance with Rule 2005(c)(4). Rule 2005(e)-Trading Zone Restrictions applies if an annual allocation is increased to a level greater than the facility's Starting Allocation plus Non-Tradable Credits:

Year		Zone	NO _x RTC Starting Allocation (pounds)	Non-Tradable Credits(NTCs) (pounds)
Begin	End			
1/1994	12/1994	Coastal	0	0

**FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC**

SECTION C: FACILITY PLOT PLAN

(TO BE DEVELOPED)

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 6 : R219 EXEMPT EQUIPMENT SUBJECT TO SOURCE SPECIFIC RULES					
System 1 :					
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E35				H23.4
RULE 219 EXEMPT EQUIPMENT, CLEANING EQUIPMENT	E36			VOC: (9) [RULE 1171,11-7-2003;RULE 1171,7-44-2006] ; VOC: (5) [RULE 1122,10-1-2004]	H23.5
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E37			VOC: (9) [RULE 1113,11-8-1996;RULE 1113,7-43-2007;RULE 1171,11-7-2003;RULE 1171,2-4-2008]	K67.2
RULE 219 EXEMPT EQUIPMENT, COOLING TOWERS	E38				H23.6

* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

**FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC**

SECTION D: DEVICE ID INDEX

**The following sub-section provides an index
to the devices that make up the facility
description sorted by device ID.**

**FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC**

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	Section D Page No.	Process	System
E35	1	6	1
E36	1	6	1
E37	1	6	1
E38	1	6	1

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

- (a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
- (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[**RULE 401, 3-2-1984**; RULE 401, 11-9-2001]

F14.1 The operator shall not use natural gas containing sulfur compounds in excess of 16 ppmv, calculated as hydrogen sulfide.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 431.1, 6-12-1998**]

F14.2 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[**RULE 431.2, 9-15-2000**]

F24.1 Accidental release prevention requirements of Section 112(r)(7):

- a). The operator shall comply with the accidental release prevention requirements pursuant to 40 CFR Part 68 and shall submit to the Executive Officer, as a part of an annual compliance certification, a statement that certifies compliance with all of the requirements of 40 CFR Part 68, including the registration and submission of a risk management plan (RMP).
- b). The operator shall submit any additional relevant information requested by the Executive Officer or designated agency.

[**40CFR 68 - Accidental Release Prevention, 5-24-1996**]

F60.1 The emission limits identified in Section D and H of the permit shall be defined as emissions discharged to the atmosphere originated from the equipment.

SYSTEM CONDITIONS

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

S2.1 The operator shall limit emissions from this system as follows

CONTAMINANT	EMISSIONS LIMIT
VOC	Less than 2.5 lbs/mmscf of hydrogen produced

A totalizing flow meter shall be installed and maintained to accurately indicate and record the flow rate of hydrogen produced

[RULE 1189, 1-21-2000]

[Systems subject to this condition : Process 1, System 1]

S13.1 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1189

[RULE 1189, 1-21-2000]

[Systems subject to this condition : Process 1, System 1]

DEVICE CONDITIONS

H. Applicable Rules

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

H23.4 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Refrigerants	District Rule	1415
Refrigerants	40CFR82, SUBPART	F

[RULE 1415, 10-14-1994; **40CFR 82 Subpart F, 5-14-1993**]

[Devices subject to this condition : E35]

H23.5 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1122
VOC	District Rule	1171

[**RULE 1122, 10-1-2004; RULE 1171, 11-7-2003; RULE 1171, 2-1-2008**]

[Devices subject to this condition : E36]

H23.6 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Chromium, Hexavalent	District Rule	1404

[RULE 1404, 4-6-1990]

[Devices subject to this condition : E38]

K. Record Keeping/Reporting

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

K67.2 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

For architectural applications where no thinners, reducers, or other VOC containing materials are added, maintain semi-annual records for all coating consisting of (a) coating type, (b) VOC content as supplied in grams per liter (g/l) of materials for low-solids coatings, (c) VOC content as supplied in g/l of coating, less water and exempt solvent, for other coatings.

For architectural applications where thinners, reducers, or other VOC containing materials are added, maintain daily records for each coating consisting of (a) coating type, (b) VOC content as applied in grams per liter (g/l) of materials used for low-solids coatings, (c) VOC content as applied in g/l of coating, less water and exempt solvent, for other coatings.

[RULE 1113, 11-8-1996; RULE 1113, 7-13-2007; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : E37]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION E: ADMINISTRATIVE CONDITIONS

The operating conditions in this section shall apply to all permitted equipment at this facility unless superseded by condition(s) listed elsewhere in this permit.

1. The permit shall remain effective unless this permit is suspended, revoked, modified, reissued, denied, or it is expired for nonpayment of permit processing or annual operating fees. [201, 203, 209, 301]
 - a. The permit must be renewed annually by paying annual operating fees, and the permit shall expire if annual operating fees are not paid pursuant to requirements of Rule 301(d). [301(d)]
 - b. The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment, in which case the Permit to Construct serves as a temporary Permit to Operate. [202, 205]
 - c. The Title V permit shall expire as specified under Section K of the Title V permit. The permit expiration date of the Title V facility permit does not supercede the requirements of Rule 205. [205, 3004]
2. The operator shall maintain all equipment in such a manner that ensures proper operation of the equipment. [204]
3. This permit does not authorize the emissions of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code of the State of California or the Rules and Regulations of the AQMD. This permit cannot be considered as permission to violate existing laws, ordinances, regulations, or statutes of other governmental agencies. [204]
4. The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit. [204]
5. The operator shall not use any equipment having air pollution control device(s) incorporated within the equipment unless the air pollution control device is in full operation. [204]
6. The operator shall maintain records to demonstrate compliance with rules or permit conditions that limit equipment operating parameters, or the type or quantity of material processed. These records shall be made available to AQMD personnel upon request and be maintained for at least: [204]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION E: ADMINISTRATIVE CONDITIONS

- a. Three years for a facility not subject to Title V; or
 - b. Five years for a facility subject to Title V.
7. The operator shall maintain and operate all equipment to ensure compliance with all emission limits as specified in this facility permit. Compliance with emission limits shall be determined according to the following specifications, unless otherwise specified by AQMD rules or permit conditions: [204]
- a. For internal combustion engines and gas turbines, measured concentrations shall be corrected to 15 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1110.2, 1134, 204]
 - b. For other combustion devices, measured concentrations shall be corrected to 3 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1146, 1146.1, 204]
 - c. For a large NO_x source, compliance with a RECLAIM concentration limit shall be measured over a continuous 60 minutes for that source; [2012]
 - d. For non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes; [204]
 - e. For the purpose of determining compliance with Rule 407, carbon monoxide (CO) shall be measured on a dry basis and be averaged over 15 consecutive minutes, and sulfur compounds which would exist as liquid or gas at standard conditions shall be calculated as sulfur dioxide (SO₂) and be averaged over 15 consecutive minutes; [407]
 - f. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent of carbon dioxide (CO₂) at standard conditions and averaged over 15 consecutive minutes. [409]
 - g. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O₂) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]
8. All equipment operating under the RECLAIM program shall comply concurrently with all provisions of AQMD Rules and Regulations, except those listed in Table 1 of Rule 2001 for NO_x RECLAIM sources and Table 2 of Rule 2001 for SO_x RECLAIM sources. Those provisions listed in Tables 1 or 2 shall not apply to NO_x or SO_x emissions after the date the facility has demonstrated compliance with all monitoring and reporting requirements of Rules 2011 or 2012, as applicable. Provisions of the listed AQMD rules in Tables 1 or 2 which have initial implementation dates in 1994 shall not apply to a RECLAIM NO_x or SO_x source, respectively. [2001]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION E: ADMINISTRATIVE CONDITIONS

9. The operator shall, when a source test is required by AQMD, provide a source test protocol to AQMD no later than 60 days before the proposed test date. The test shall not commence until the protocol is approved by AQMD. The test protocol shall contain the following information: [204, 304]
 - a. Brief description of the equipment tested.
 - b. Brief process description, including maximum and normal operating temperatures, pressures, through-put, etc.
 - c. Operating conditions under which the test will be performed.
 - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
 - e. Brief description of sampling and analytical methods used to measure each pollutant, temperature, flow rates, and moisture.
 - f. Description of calibration and quality assurance procedures.
 - g. Determination that the testing laboratory qualifies as an "independent testing laboratory" under Rule 304 (no conflict of interest).

10. The operator shall submit a report no later than 60 days after conducting a source test, unless otherwise required by AQMD Rules or equipment-specific conditions. The report shall contain the following information: [204]
 - a. The results of the source test.
 - b. Brief description of the equipment tested.
 - c. Operating conditions under which test will be performed.
 - d. Method of measuring operating parameters, such as fuel rate and process weight. Process schematic diagram showing the ports and sampling locations, including the dimensions of the ducts/stacks at the sampling locations, and distances of flow disturbances, (e.g. elbows, tees, fans, dampers) from the sampling locations (upstream and downstream).
 - e. Field and laboratory data forms, strip charts and analyses.
 - f. Calculations for volumetric flow rates, emission rates, control efficiency, and overall control efficiency.

11. The operator shall, when a source test is required, provide and maintain facilities for sampling and testing. These facilities shall comply with the requirements of AQMD Source Test Method 1.1 and 1.2. [217]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION E: ADMINISTRATIVE CONDITIONS

12. Whenever required to submit a written report, notification or other submittal to the Executive Officer, AQMD, or the District, the operator shall mail or deliver the material to: Deputy Executive Officer, Engineering and Compliance, AQMD, 21865 E. Copley Drive, Diamond Bar, CA 91765-4182.
[204]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS

The Facility shall comply with all applicable monitoring and source testing requirements in Regulation XX. These requirements may include but are not limited to the following:

I. NO_x Monitoring Conditions

A. The Operator of a NO_x Major Source, as defined in Rule 2012, shall, as applicable:

1. Install, maintain, and operate an AQMD certified direct or time-shared monitoring device or an approved alternative monitoring device for each major NO_x source to continuously measure the concentration of NO_x emissions and all other applicable variables specified in Rule 2012, Table 2012-1 and Rule 2012, Appendix A, Table 2-A to determine the NO_x emissions rate from each source. The time-sharing of CEMS among NO_x sources may be allowed by the Executive Officer in accordance with the requirements for time sharing specified in Appendix A. [2012]
2. Install, maintain, and operate a totalizing fuel meter approved by the Executive Officer for each major source. [2012]
3. If the facility is operating existing CEMS and fuel meters, continue to follow recording and reporting procedures required by AQMD Rules and Regulations in effect prior to October 15, 1993 until the CEMS is certified pursuant to Rule 2012. [2012]
4. Use valid data collected by an AQMD certified or provisionally certified CEMS in proper operation that meets all the requirements of Appendix A of Rule 2012, unless final certification of the CEMS is denied, to determine mass emissions for all purposes, including, but not limited to, determining: [2012]
 - a. compliance with the annual Allocation;
 - b. excess emissions;
 - c. the amount of penalties; and
 - d. fees.
5. Follow missing data procedures as specified in Rule 2012 Appendix A whenever valid data is not available or collected to determine mass emissions for all purposes, including, but not limited to, determining: [2012]
 - a. compliance with the annual Allocation;
 - b. excess emissions;
 - c. the amount of penalties; and
 - d. fees.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION F: RECLAIM MONITORING AND SOURCE TESTING REQUIREMENTS

B. The Operator of a NO_x Large Source, as defined in Rule 2012, shall, as applicable:

Not Applicable

C. The Operator of a NO_x Process Unit, as defined in Rule 2012, shall, as applicable:

Not Applicable

II. NO_x Source Testing and Tune-up Conditions

1. The operator shall conduct all required NO_x source testing in compliance with an AQMD-approved source test protocol. [2012]
2. The operator shall, as applicable, conduct source tests for every large NO_x source no later than December 31, 1996 and every 3 years thereafter. The source test shall include the determination of NO_x concentration and a relative accuracy audit of the exhaust stack flow determination (e.g. in-stack flow monitor or fuel flow monitor based F-factor calculation). Such source test results shall be submitted per the schedule described by APEP. In lieu of submitting the first source test report, the facility permit holder may submit the results of a source test not more than 3 years old which meets the requirements when conducted. [2012]
3. All NO_x large sources and NO_x process units shall be tuned-up in accordance with the schedule specified in Rule 2012, Appendix A, Chapter 5, Table 5-B. [2012]
4. Process Unit source testing

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES

The Facility shall comply with all applicable reporting and recordkeeping requirements in Regulation XX. These requirements may include but are not limited to the following:

I. Recordkeeping Requirements for all RECLAIM Sources

1. The operator shall maintain all monitoring data required to be measured or reported pursuant to Rule 2011 and Rule 2012, whichever is applicable. All records shall be made available to AQMD staff upon request and be maintained for at least:
 - a. Three years after each APEP report is submitted to AQMD for a facility not subject to Title V, unless a different time period is required in Rule 2011 or Rule 2012 [2011 & 2012]; or
 - b. Five years after each APEP report is submitted to AQMD for a facility subject to Title V. [3004(a)(4)(E)]
 - c. Notwithstanding the above, all data gathered or computed for intervals of less than 15 minutes shall only be maintained a minimum of 48 hours. [2011 & 2012]
2. The operator shall store on site and make available to the Executive Officer upon request: records used to determine emissions, maintenance records, sources test reports, relative accuracy test audit reports, relative accuracy audit reports and fuel meter calibration records. [2011 & 2012]

II. Reporting Requirements for all RECLAIM Sources

1. The operator shall submit a quarterly certification of emissions including the facility's total NO_x or SO_x emissions, whichever is applicable, for the quarter within 30 days after the end of the first three quarters and 60 days after the end of the fourth quarter of a compliance year. [2011 & 2012]

NO_x Reporting Requirements

- A. The Operator of a NO_x Major Source, as defined in Rule 2012, shall, as applicable:
 1. No later than 12 months after entry into the RECLAIM program or after the initial operation of a new major source, whichever is later, install, maintain, and operate a reporting device to electronically report everyday to the AQMD central station for each major NO_x source, the total daily mass emissions of NO_x and daily status codes. Such data

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SECTION G: RECORDKEEPING AND REPORTING REQUIREMENTS FOR RECLAIM SOURCES

shall be transmitted by 5:00 p.m. of the following day. If the facility experiences a power, computer, or other system failure that prevents the submittal of the daily report, the Facility Permit holder shall be granted 24 hours extension to submit the report. [2012]

2. Calculate NO_x emissions pursuant to missing data procedures set forth in Appendix A, Chapter 2 of Rule 2012 if the Facility Permit holder fails to meet the deadline for submitting the daily report. [2012]
 3. Submit an electronic report within 15 days following the end of each month totaling NO_x emissions from all major NO_x sources during the month. [2012]
 4. For those facilities with existing CEMS and fuel meters as of October 15, 1993, continue to follow recording and reporting procedures required by AQMD Rules and Regulations in effect until the CEMS is certified pursuant to Rule 2011 and/or Rule 2012, as applicable. [2012]
- B. The Operator of a NO_x Large Source, as defined in Rule 2012, shall:
Not Applicable
- C. The Operator of a NO_x Process Unit, as defined in Rule 2012, shall:
Not Applicable

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SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : HYDROGEN PRODUCTION					
System 1 : HYDROGEN PLANT					S2.1, S13.1
VESSEL, V-101, FEED GAS SEPARATOR, HEIGHT: 10 FT; DIAMETER: 4 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D4				E71.1
FILTER, F-200A/B, FEED COMPRESSOR INLET A/N: 337978 Permit to Construct Issued: 09/11/98	D5				
COMPRESSOR, C-200A/B, FEED, SINGLE STAGE, CAPACITY: 1,302,065 DSCFH, 12,000 HP EACH A/N: 337978 Permit to Construct Issued: 09/11/98	D6				
HEAT EXCHANGER, E-201A/B, FEED COMPRESSOR DISCHARGE COOLER, SHELL AND TUBE TYPE, 5.33 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D7				
VESSEL, K-201A/B, FEED COMPRESSOR DISCHARGE COALESCER, CAPACITY: 1.302 MMSCFH, WITH PRESSURE RELIEF VALVE VENTED TO FLARE A/N: 337978 Permit to Construct Issued: 09/11/98	D8	C33			

* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements
 ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : HYDROGEN PRODUCTION					
HEAT EXCHANGER, E-103, PROCESS GAS BOILER, SHELL AND TUBE TYPE, 198.26 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D9				
REACTOR, V-109, HIGH TEMPERATURE SHIFT, HEIGHT: 16 FT 6 IN; DIAMETER: 12 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D10				
HEAT EXCHANGER, E-104, FEED PREHEATER, SHELL AND TUBE TYPE, 28.44 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D11				
VESSEL, V-104, HYDROGENATOR, HEIGHT: 11 FT; DIAMETER: 8 FT 6 IN A/N: 337978 Permit to Construct Issued: 09/11/98	D12				
VESSEL, V-105, FEED DESULFURIZER, WITH ZINC OXIDE CATALYST, HEIGHT: 11 FT 6 IN; DIAMETER: 9 FT 6 IN A/N: 337978 Permit to Construct Issued: 09/11/98	D13				
VESSEL, V-103, PRE-REFORMER, WITH PRE-REFORMER CATALYST, HEIGHT: 15 FT; DIAMETER: 7 FT 6 IN A/N: 337978 Permit to Construct Issued: 09/11/98	D14				

* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : HYDROGEN PRODUCTION					
HEAT EXCHANGER, E-106, BFW PREHEATER, SHELL AND TUBE TYPE, 89.63 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D15				
HEAT EXCHANGER, E-108, DEAERATOR WATER HEATER, SHELL AND TUBE TYPE, 43.53 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D16				
HEAT EXCHANGER, E-109, PROCESS GAS AIR COOLER, FAN TYPE, 100.43 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D17				
HEAT EXCHANGER, E-110, PROCESS TRIM COOLER, SHELL AND TUBE TYPE, 8.71 MMBTU/HR A/N: 337978 Permit to Construct Issued: 09/11/98	D18				
VESSEL, V-112, PROCESS CONDENSATE SEPARATOR, WITH PRV VENTED TO FLARE, HEIGHT: 21 FT; DIAMETER: 7 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D19	C33			
ADSORBER, V8000 A THRU J, PSA, 10 IDENTICAL UNITS, HEIGHT: 29 FT; DIAMETER: 12 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D20				E336.1, H23.1

* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : HYDROGEN PRODUCTION					
VESSEL, V-113A/B, PSA SURGE DRUM, WITH PRV VENTED TO FLARE, HEIGHT: 90 FT; DIAMETER: 12 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D21	C33			
VESSEL, V-107, CONTINUOUS BLOWDOWN DRUM, HEIGHT: 9 FT; DIAMETER: 2 FT 6 IN A/N: 337978 Permit to Construct Issued: 09/11/98	D22				
VESSEL, V-129, INTERMITTENT BLOWDOWN DRUM, VENTED TO ATMOSPHERE, HEIGHT: 10 FT; DIAMETER: 5 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D23				H23.1
VESSEL, V-114, DEAERATOR, VENTED TO THE TUNNELS OF THE HEATER FIREBOX, WITH PRV VENTED TO ATMOSPHERE, HEIGHT: 23 FT 11 IN; DIAMETER: 10 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D24	D30			E57.1, H23.1
COMPRESSOR, C-251A/B, 1ST STAGE PRODUCT HYDROGEN, CAPACITY: 3.333 MMSCFH A/N: 337978 Permit to Construct Issued: 09/11/98	D25				

* (1)(1A)(1B) Denotes RECLAIM emission factor
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1 : HYDROGEN PRODUCTION					
VESSEL, K-251A/B, 1ST STAGE COMPRESSOR COALESCER, CAPACITY: 2.708 MMSCFH A/N: 337978 Permit to Construct Issued: 09/11/98	D26				
COMPRESSOR, C-252A/B, 2ND STAGE HYDROGEN PRODUCT, CAPACITY: 2.708 MMSCFH A/N: 337978 Permit to Construct Issued: 09/11/98	D27				
VESSEL, K-252A/B, 2ND STAGE COMPRESSOR COALESCER, CAPACITY: 2.708 MMSCFH A/N: 337978 Permit to Construct Issued: 09/11/98	D28				
VESSEL, V-133, OIL BLOWDOWN DRUM, VENTED TO FLARE, HEIGHT: 7 FT; DIAMETER: 3 FT A/N: 337978 Permit to Construct Issued: 09/11/98	D29	C33			
Process 2 : REFORMING					
System 1 : REFORMER HEATER					
HEATER, H-101, REFORMER, NATURAL GAS, PSA GAS, 764 MMBTU/HR WITH A/N: 337979 Permit to Construct Issued: 08/03/01	D30	D24 C32	NOX: MAJOR SOURCE**	CO: 400 PPMV (5B) [RULE 1146,11-17-2000] ; CO: 10 PPMV (5) [RULE 1303(b)(2)-Offset,5-10-1996;RULE 1303(b)(2)-Offset,12-6-2002]	A63.1, A99.1, A195.1, D12.1, D182.1, E57.2, H23.1, H23.2, K67.1

* (1)(1A)(1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5)(5A)(5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2)(2A)(2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See Section J for NESHAP/MACT requirements
 ** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 2 : REFORMING					
BURNER, NATURAL GAS, PSA GAS, JOHN ZINK, MODEL PFLD-SF, 117, DOWNFIRED, STAGED TYPE, WITH LOW NOX BURNER				<p>CO: 2000 PPMV (5A) [RULE 407,4-2-1982] ; NOX: 5 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]</p> <p>PM: 0.1 GRAINS/SCF (5B) [RULE 409,8-7-1981] ; PM: (9) [RULE 404,2-7-1986] ; PM10: 0.005 LBS/MMBTU (5) [RULE 1303(b)(2)-Offset,5-10-1996 RULE 1303(b)(2)-Offset,12-6-2002]</p>	
System 2 : AIR POLLUTION CONTROL SYSTEM					
SELECTIVE CATALYTIC REDUCTION, X-102, 42 MODULES, WITH AMMONIA INJECTION, 1490 CU.FT.; WIDTH: 6 FT 4 IN; HEIGHT: 3 FT; LENGTH: 3 FT 2 IN A/N: 337980 Permit to Construct Issued: 09/11/98	C32	D30		NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT,5-10-1996;RULE 1303(a)(1)-BACT,12-6-2002]	D12.3, D182.1, H23.1

* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3 : STORAGE TANK					
System 1 : FIXED ROOF STORAGE TANK					
STORAGE TANK, FIXED ROOF, V-135, AQUEOUS AMMONIA, 10000 GALS; DIAMETER: 8 FT 6 IN; HEIGHT: 19 FT A/N: 337981 Permit to Construct Issued: 09/11/98	D34				
Process 4 : FLARE					
System 1 : RELIEF FLARE					
FLARE, ELEVATED WITHOUT STEAM, X-940, JOHN ZINK, MODEL EEF-LHTS-150/70, AIR ASSISTED, NATURAL GAS, WITH AN INTEGRAL LIQUID SEAL AND KNOCK-OUT DRUM, HEIGHT: 150 FT; DIAMETER: 6 FT 2 IN A/N: 337982 Permit to Construct Issued: 09/11/98	C33	D8 D19 D21 D29		CO: 2000 PPMV (5) [RULE 407,4-2-1982] ; PM: 0.1 GRAINS/SCF (5B) [RULE 409,8-7-1981] ; PM: (9) [RULE 404,2-7-1986]	D12.2, H23.1, H23.7

* (1)(1A)(1B) Denotes RECLAIM emission factor (2)(2A)(2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements

** Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

**FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC**

SECTION H: DEVICE ID INDEX

**The following sub-section provides an index
to the devices that make up the facility
description sorted by device ID.**

**FACILITY PERMIT TO OPERATE
 AIR PROD & CHEM INC**

SECTION H: DEVICE ID INDEX

Device Index For Section H			
Device ID	Section H Page No.	Process	System
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D11	2	1	1
D12	2	1	1
D13	2	1	1
D14	2	1	1
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D18	3	1	1
D19	3	1	1
D20	3	1	1
D21	4	1	1
D22	4	1	1
D23	4	1	1
D24	4	1	1
D25	4	1	1
D26	5	1	1
D27	5	1	1
D28	5	1	1
D29	5	1	1
D30	5	2	1
C32	6	2	2
C33	7	4	1
D34	7	3	1

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

FACILITY CONDITIONS

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

- (a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
- (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[**RULE 401, 3-2-1984**; RULE 401, 11-9-2001]

F14.1 The operator shall not use natural gas containing sulfur compounds in excess of 16 ppmv, calculated as hydrogen sulfide.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002; **RULE 431.1, 6-12-1998**]

F14.2 The operator shall not purchase diesel fuel containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[**RULE 431.2, 9-15-2000**]

F24.1 Accidental release prevention requirements of Section 112(r)(7):

- a). The operator shall comply with the accidental release prevention requirements pursuant to 40 CFR Part 68 and shall submit to the Executive Officer, as a part of an annual compliance certification, a statement that certifies compliance with all of the requirements of 40 CFR Part 68, including the registration and submission of a risk management plan (RMP).
- b). The operator shall submit any additional relevant information requested by the Executive Officer or designated agency.

[**40CFR 68 - Accidental Release Prevention, 5-24-1996**]

F60.1 The emission limits identified in Section D and H of the permit shall be defined as emissions discharged to the atmosphere originated from the equipment.

SYSTEM CONDITIONS

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

S2.1 The operator shall limit emissions from this system as follows

CONTAMINANT	EMISSIONS LIMIT
VOC	Less than 2.5 lbs/mmscf of hydrogen produced

A totalizing flow meter shall be installed and maintained to accurately indicate and record the flow rate of hydrogen produced

[RULE 1189, 1-21-2000]

[Systems subject to this condition : Process 1, System 1]

S13.1 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1189

[RULE 1189, 1-21-2000]

[Systems subject to this condition : Process 1, System 1]

DEVICE CONDITIONS

A. Emission Limits

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

A63.1 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
CO	Less than or equal to 147 LBS IN ANY ONE DAY
NOX	Less than or equal to 121 LBS IN ANY ONE DAY
PM10	Less than or equal to 92 LBS IN ANY ONE DAY
ROG	Less than or equal to 129 LBS IN ANY ONE DAY
SOX	Less than or equal to 2 LBS IN ANY ONE DAY

The operator shall calculate the daily mass emissions for compliance determination based on the source test required under this permit

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D30]

A99.1 The 5 PPM NOX emission limit(s) shall not apply during any startup or shutdown period. Startup or shutdown period shall be kept at a minimum, and in no case shall it exceed 48 hours.

[RULE 2005, 5-6-2005]

[Devices subject to this condition : D30]

A195.1 The 5 PPM NOX emission limit(s) is averaged over every any 3 consecutive hours.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D30]

D. Monitoring/Testing Requirements

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- D12.1 The operator shall install and maintain a(n) measuring device to accurately indicate the oxygen concentration in the flue gas at the convective section or exhaust stack of this heater. The excess oxygen such measured shall be at a minimum of 1 percent, dry basis, except during startup, shutdown, or process upset.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D30]

- D12.2 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the flare gases in order to comply with District Rule 1118.

The operator shall also install and maintain a device to continuously record the parameter being measured.

[RULE 1118, 11-4-2005]

[Devices subject to this condition : C33]

- D12.3 The operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature across the SCR catalyst bed.

The operator shall also install and maintain a device to continuously record the parameter being measured.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : C32]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

D182.1 The operator shall test this equipment in accordance with the following specifications:

The test shall be conducted at least annually

During the test, the hydrogen plant shall be operated at least 80 percent of the permitted maximum rated capacity or within a capacity range approved by the District

A source test protocol shall be submitted to the district no later than 60 days before the proposed test date. The annual test may commence without prior approval from the District if it is conducted according to a source test protocol previously approved by the District for this equipment. The district shall be notified of the date and time of the test at least 15 days prior to the test. A report shall be submitted to the district no later than 90 days after conducting the test

Testing and sampling facilities shall be provided and maintained in accordance with District Source Test Method 1.1 or 1.2 and District Guidelines for Construction of Sampling and Testing Facilities

The test shall determine and report the concentrations and mass emission rates for NOX, CO, PM10, ROG, and the following:

- a) NOX in lb/MMBTU of heat input, from the inlet and outlet of the SCR unit
- b) Excess oxygen in percent dry basis, from the SCR unit outlet
- c) Ammonia in ppmv, from the SCR unit outlet
- d) Flue gas flow rate in scf/hr, from the SCR unit outlet
- e) Heating value(HHV), in BTU/SCF, of fuel gases supplied to the hydrogen reforming heater
- f) Control efficiency of the SCR unit

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D30, C32]

E. Equipment Operation/Construction Requirements

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

- E57.1 The operator shall vent this equipment to the tunnels of the fire-box of the reformer heater whenever the hydrogen plant is in operation, except during startup, shutdown, or emergency.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D24]

- E57.2 The operator shall vent this equipment to an air pollution control equipment consisting of a selective catalytic reduction (SCR) system which is in full use whenever this equipment is in operation, except during startup or shutdown period. Startup or shutdown period, excluding the refractory dry-out period, shall not exceed 48 consecutive hours. If the heater exhaust reaches 570 degree F, the flue gas shall be vented through the SCR system using ammonia injection. Refractory dryout and steam blows shall be permitted up to a total of 144 consecutive hours to allow the curing of refractory materials and blow out of steam lines.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D30]

- E71.1 The operator shall not use this equipment to process any feed gas except commercial pipe-line quality natural gas.

[**RULE 1303(a)(1)-BACT, 5-10-1996**; RULE 1303(a)(1)-BACT, 12-6-2002]

[Devices subject to this condition : D4]

- E336.1 The operator shall vent the vent gases from this equipment as follows:

All PSA purge gases shall be directed to the reformer heater, except during startup, shutdown, or emergency. Atmospheric venting of product hydrogen and carbon monoxide shall be permitted only during periods of emergency, startup, shutdown or unforeseen turndown of hydrogen demand; provided that such discharges do not endanger the health and safety of any person or the public, or cause damage to business or property.

[**RULE 1303(b)(2)-Offset, 5-10-1996**; RULE 1303(b)(2)-Offset, 12-6-2002]

[Devices subject to this condition : D20]

H. Applicable Rules

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

H23.1 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
CO	District Rule	407

This rule applies during normal operation, startup, shutdown, and unforeseen turndown of hydrogen demand.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 407, 4-2-1982]

[Devices subject to this condition : D20, D23, D24, D30, C32, C33]

H23.2 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
CO	District Rule	1146

This rule applies during normal operation and unforeseen turndown of hydrogen demand.

[RULE 1146, 11-17-2000; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D30]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

The operator shall comply with the terms and conditions set forth below:

H23.7 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
SOX	District Rule	1118

[RULE 1118, 11-4-2005]

[Devices subject to this condition : C33]

K. Record Keeping/Reporting

K67.1 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

During startup, shutdown and dry-out/steam blow periods, the hourly firing rates, flue gas temperature, process feed flow rates, inlet and outlet process fluid temperatures, excess oxygen and NOX emissions.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D30]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION I: PLANS AND SCHEDULES

This section lists all plans approved by AQMD for the purposes of meeting the requirements of applicable AQMD rules.

NONE

NOTE: This section does not list compliance schedules pursuant to the requirements of Regulation XXX - Title V Permits; Rule 3004(a)(10)(C). For equipment subject to a variance, order for abatement, or alternative operating condition granted pursuant to Rule 518.2, equipment specific conditions are added to the equipment in Section D or H of the permit.

**FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC**

SECTION J: AIR TOXICS

NOT APPLICABLE

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION K: TITLE V Administration

GENERAL PROVISIONS

1. This permit may be revised, revoked, reopened and reissued, or terminated for cause, or for failure to comply with regulatory requirements, permit terms, or conditions. [3004(a)(7)(C)]
2. This permit does not convey any property rights of any sort or any exclusive privilege. [3004(a)(7)(E)]

Permit Renewal and Expiration

3. (A) Except for solid waste incineration facilities subject to standards under Section 129(e) of the Clean Air Act, this permit shall expire five years from the date that this Title V permit is issued. The operator's right to operate under this permit terminates at midnight on this date, unless the facility is protected by an application shield in accordance with Rule 3002(b), due to the filing of a timely and complete application for a Title V permit renewal, consistent with Rule 3003. [3004(a)(2), 3004(f)]

(B) A Title V permit for a solid waste incineration facility combusting municipal waste subject to standards under Section 129(e) of the Clean Air Act shall expire 12 years from the date of issuance unless such permit has been renewed pursuant to this regulation. These permits shall be reviewed by the Executive Officer at least every five years from the date of issuance. [3004(f)(2)]
4. To renew this permit, the operator shall submit to the Executive Officer an application for renewal at least 180 days, but not more than 545 days, prior to the expiration date of this permit. [3003(a)(6)]

Duty to Provide Information

5. The applicant for, or holder of, a Title V permit shall furnish, pursuant to Rule 3002(d) and (e), timely information and records to the Executive Officer or designee within a reasonable time as specified in writing by the Executive Officer or designee. [3004(a)(7)(F)]

Payment of Fees

6. The operator shall pay all required fees specified in Regulation III - Fees. [3004(a)(7)(G)]

Reopening for Cause

7. The Executive Officer will reopen and revise this permit if any of the following circumstances occur:
 - (A) Additional regulatory requirements become applicable with a remaining permit term of three or more years. Reopening is not required if the effective date of the requirement is later than the expiration date of this permit, unless the permit or any of its terms and conditions has been extended pursuant to paragraph (f)(4) of Rule 3004.

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION K: TITLE V Administration

- (B) The Executive Officer or EPA Administrator determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit.
- (C) The Executive Officer or EPA Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [3005(g)(1)]

COMPLIANCE PROVISIONS

- 8. The operator shall comply with all regulatory requirements, and all permit terms and conditions, except:
 - (A) As provided for by the emergency provisions of condition no. 17 or condition no. 18, or
 - (B) As provided by an alternative operating condition granted pursuant to a federally approved (SIP-approved) Rule 518.2.

Any non-compliance with any federally enforceable permit condition constitutes a violation of the Federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or revision; or denial of a permit renewal application. Non-compliance may also be grounds for civil or criminal penalties under the California State Health and Safety Code. [3004(a)(7)(A)]

- 9. The operator shall allow the Executive Officer or authorized representative, upon presentation of appropriate credentials to:
 - (A) Enter the operator's premises where emission-related activities are conducted, or records are kept under the conditions of this permit;
 - (B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
 - (C) Inspect at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - (D) Sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the facility permit or regulatory requirements. [3004(a)(10)(B)]
- 10. All terms and conditions in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the EPA Administrator and citizens under the federal Clean Air Act, unless the term or condition is designated as not federally enforceable. Each day during any portion of which a violation occurs is a separate offense. [3004(g)]

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11. A challenge to any permit condition or requirement raised by EPA, the operator, or any other person, shall not invalidate or otherwise affect the remaining portions of this permit. [3007(b)]
12. The filing of any application for a permit revision, revocation, or termination, or a notification of planned changes or anticipated non-compliance does not stay any permit condition. [3004(a)(7)(D)]
13. It shall not be a defense for a person in an enforcement action, including those listed in Rule 3002(c)(2), that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit, except as provided for in "Emergency Provisions" of this section. [3004(a)(7)(H)]
14. The operator shall not build, erect, install, or use any equipment, the use of which, without resulting in a reduction in the total release of air contaminants to atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Chapter 3 (commencing with Section 41700) of Part 4, of Division 26 of the California Health and Safety Code or of AQMD rules. This rule shall not apply to cases in which the only violation involved is of Section 41700 of the California Health and Safety Code, or Rule 402 of AQMD Rules. [408]
15. Nothing in this permit or in any permit shield can alter or affect:
 - (A) Under Section 303 of the federal Clean Air Act, the provisions for emergency orders;
 - (B) The liability of the operator for any violation of applicable requirements prior to or at the time of permit issuance;
 - (C) The applicable requirements of the Acid Rain Program, Regulation XXXI;
 - (D) The ability of EPA to obtain information from the operator pursuant to Section 114 of the federal Clean Air Act;
 - (E) The applicability of state or local requirements that are not "applicable requirements", as defined in Rule 3000, at the time of permit issuance but which do apply to the facility, such as toxics requirements unique to the State; and
 - (F) The applicability of regulatory requirements with compliance dates after the permit issuance date. [3004(c)(3)]
16. For any portable equipment that requires an AQMD or state permit or registration, excluding a) portable engines, b) military tactical support equipment and c) AQMD-permitted portable equipment that are not a major source, are not located at the facility for more than 12 consecutive months after

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commencing operation, and whose operation does not conflict with the terms or conditions of this Title V permit: 1) the facility operator shall keep a copy of the AQMD or state permit or registration; 2) the equipment operator shall comply with the conditions on the permit or registration and all other regulatory requirements; and 3) the facility operator shall treat the permit or registration as a part of its Title V permit, subject to recordkeeping, reporting and certification requirements. [3004(a)(1)]

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SECTION K: TITLE V Administration

EMERGENCY PROVISIONS

17. An emergency¹ constitutes an affirmative defense to an action brought for non-compliance with a technology-based emission limit only if:
- (A) Properly signed, contemporaneous operating records or other credible evidence demonstrate that:
 - (1) An emergency occurred and the operator can identify the cause(s) of the emergency;
 - (2) The facility was operated properly (i.e. operated and maintained in accordance with the manufacturer's specifications, and in compliance with all regulatory requirements or a compliance plan), before the emergency occurred;
 - (3) The operator took all reasonable steps to minimize levels of emissions that exceeded emissions standard, or other requirements in the permit; and,
 - (4) The operator submitted a written notice of the emergency to the AQMD within two working days of the time when the emissions limitations were exceeded due to the emergency. The notice shall contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and
 - (B) The operator complies with the breakdown provisions of Rule 430 - Breakdown Provisions, or subdivision (i) of Rule 2004 - Requirements, whichever is applicable. [3002(g), 430, 2004(i)]
18. The operator is excused from complying with any regulatory requirement that is suspended by the Executive Officer during a state of emergency or state of war emergency, in accordance with Rule 118 - Emergencies. [118]

¹ "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the operator, including acts of God, which: (A) requires immediate corrective action to restore normal operation; and (B) causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency; and (C) is not caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

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RECORDKEEPING PROVISIONS

19. In addition to any other recordkeeping requirements specified elsewhere in this permit, the operator shall keep records of required monitoring information, where applicable, that include:
- (A) The date, place as defined in the Title V permit, and time of sampling or measurements;
 - (B) The date(s) analyses were performed;
 - (C) The company or entity that performed the analyses;
 - (D) The analytical techniques or methods used;
 - (E) The results of such analyses; and
 - (F) The operating conditions as existing at the time of sampling or measurement. [3004(a)(4)(B)]
20. The operator shall maintain records pursuant to Rule 109 and any applicable material safety data sheet (MSDS) for any equipment claimed to be exempt from a written permit by Rule 219 based on the information in those records. [219(t)]
21. The operator shall keep all records of monitoring data required by this permit or by regulatory requirements for a period of at least five years from the date of the monitoring sample, measurement, report, or application. [3004(a)(4)(E)]

REPORTING PROVISIONS

22. The operator shall comply with the following requirements for prompt reporting of deviations:
- (A) Breakdowns shall be reported as required by Rule 430 - Breakdown Provisions or subdivision (i) of Rule 2004 - Requirements, whichever is applicable.
 - (B) Other deviations from permit or applicable rule emission limitations, equipment operating conditions, or work practice standards, determined by observation or by any monitoring or testing required by the permit or applicable rules that result in emissions greater than those allowed by the permit or applicable rules shall be reported within 72 hours (unless a shorter reporting period is specified in an applicable State or Federal Regulation) of discovery of the deviation by contacting AQMD enforcement personnel assigned to this facility or otherwise calling (800) CUT-SMOG.

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- (C) A written report of such deviations reported pursuant to (B), and any corrective actions or preventative measures taken, shall be submitted to AQMD, in an AQMD approved format, within 14 days of discovery of the deviation.
 - (D) All other deviations shall be reported with the monitoring report required by condition no. 23. [3004(a)(5)]
23. Unless more frequent reporting of monitoring results are specified in other permit conditions or in regulatory requirements, the operator shall submit reports of any required monitoring to the AQMD at least twice per year. The report shall include a) a statement whether all monitoring required by the permit was conducted; and b) identification of all instances of deviations from permit or regulatory requirements. A report for the first six calendar months of the year is due by August 31 and a report for the last six calendar months of the year is due by February 28. [3004(a)(4)(F)]
24. The operator shall submit to the Executive Officer and to the Environmental Protection Agency (EPA), an annual compliance certification. For RECLAIM facilities, the certification is due when the Annual Permit Emissions Program (APEP) report is due and shall cover the same reporting period. For other facilities, the certification is due on March 1 for the previous calendar year. The certification need not include the period preceding the date the initial Title V permit was issued. Each compliance certification shall include:
- (A) Identification of each permit term or condition that is the basis of the certification;
 - (B) The compliance status during the reporting period;
 - (C) Whether compliance was continuous or intermittent;
 - (D) The method(s) used to determine compliance over the reporting period and currently, and
 - (E) Any other facts specifically required by the Executive Officer to determine compliance.
- The EPA copy of the certification shall be sent to: Director of the Air Division Attn: Air-3 USEPA, Region IX 75 Hawthorne St. San Francisco, CA 94105 [3004(a)(10)(E)]
25. All records, reports, and documents required to be submitted by a Title V operator to AQMD or EPA shall contain a certification of accuracy consistent with Rule 3003(c)(7) by a responsible official (as defined in Rule 3000). [3004(a)(12)]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION K: TITLE V Administration

PERIODIC MONITORING

26. All periodic monitoring required by this permit pursuant to Rule 3004(a)(4)(c) is based on the requirements and justifications in the AQMD document "Periodic Monitoring Guidelines for Title V Facilities" or in case-by-case determinations documented in the Title V application file. [3004(a)(4)]

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

SECTION K: TITLE V Administration

FACILITY RULES

This facility is subject to the following rules and regulations:

With the exception of Rule 402, 473, 477, 1118 and Rules 1401 through 1420, the following rules that are designated as non-federally enforceable are pending EPA approval as part of the state implementation plan. Upon the effective date of that approval, the approved rule(s) will become federally enforceable, and any earlier versions of those rules will no longer be federally enforceable.

RULE SOURCE	Adopted/Amended Date	FEDERAL Enforceability
RULE 1113	11-8-1996	Federally enforceable
RULE 1113	7-13-2007	Non federally enforceable
RULE 1118	11-4-2005	Federally enforceable
RULE 1122	10-1-2004	Federally enforceable
RULE 1146	11-17-2000	Federally enforceable
RULE 1171	11-7-2003	Federally enforceable
RULE 1171	2-1-2008	Non federally enforceable
RULE 1171	7-14-2006	Non federally enforceable
RULE 1189	1-21-2000	Federally enforceable
RULE 1303(a)(1)-BACT	12-6-2002	Non federally enforceable
RULE 1303(a)(1)-BACT	5-10-1996	Federally enforceable
RULE 1303(b)(2)-Offset	12-6-2002	Non federally enforceable
RULE 1303(b)(2)-Offset	5-10-1996	Federally enforceable
RULE 1404	4-6-1990	Non federally enforceable
RULE 1415	10-14-1994	Non federally enforceable
RULE 2005	5-6-2005	Federally enforceable
RULE 2012	5-6-2005	Federally enforceable
RULE 3004(a)(4)-Periodic Monitoring	12-12-1997	Federally enforceable
RULE 401	11-9-2001	Non federally enforceable
RULE 401	3-2-1984	Federally enforceable
RULE 404	2-7-1986	Federally enforceable
RULE 407	4-2-1982	Federally enforceable
RULE 409	8-7-1981	Federally enforceable
RULE 431.1	6-12-1998	Federally enforceable
RULE 431.2	9-15-2000	Non federally enforceable
40CFR 68 - Accidental Release Prevention	5-24-1996	Federally enforceable
40CFR 82 Subpart F	5-14-1993	Federally enforceable

**FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC**

**APPENDIX A: NOX AND SOX EMITTING EQUIPMENT EXEMPT FROM WRITTEN
PERMIT PURSUANT TO RULE 219**

1. INTERNAL COMBUSTION ENGINE, \leq 50 BHP RATING

**FACILITY PERMIT TO OPERATE
 AIR PROD & CHEM INC**

**APPENDIX B: RULE EMISSION LIMITS
 [RULE 1113 11-8-1996]**

- (1) Except as provided in paragraphs (c)(2), (c)(3), and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, or solicit the application of, any architectural coating which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, or manufacture, blend, or repackage such a coating for use within the District.
- (2) Except as provided in paragraphs (c)(3) and (c)(4) of Rule 1113, the operator shall not supply, sell, offer for sale, apply, solicit the application of, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified.

TABLE OF STANDARDS

VOC LIMITS

**Grams of VOC Per Liter of Coating,
 Less Water And Less Exempt Compounds**

COATING	Limit*	Effective Date of Adoption	Effective 1/1/1998	Effective 1/1/1999	Effective 7/1/2001	Effective 1/1/2005	Effective 7/1/2008
Bond Breakers	350						
Clear Wood Finishes							
Varnish	350						
Sanding Sealers	350						
Lacquer	680		550			275	
Concrete-Curing Compounds	350						
Dry-Fog Coatings	400						
Fire-proofing Exterior Coatings	350	450		350			
Fire-Retardant Coatings							
Clear	650						
Pigmented	350						
Flats	250						
Graphic Arts (Sign) Coatings	500					100	50
Industrial Maintenance							

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AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS [RULE 1113 11-8-1996]

Primers and Topcoats						
Alkyds	420					
Catalyzed Epoxy	420					
Bituminous Coatings	420					
Materials						
Inorganic Polymers	420					
Vinyl Chloride Polymers	420					
Chlorinated Rubber	420					
Acrylic Polymers	420					
Urethane Polymers	420					
Silicones	420					
Unique Vehicles	420					
Japans/Faux Finishing	350	700		350		
Coatings						
Magnesite Cement Coatings	600			450		
Mastic Coatings	300					
Metallic Pigmented Coatings	500					
Multi-Color Coatings	420		250			
Pigmented Lacquer	680		550		275	
Pre-Treatment Wash Primers	780					
Primers, Sealers, and	350					
Undercoaters						
Quick-Dry Enamels	400					
Roof Coatings	300					
Shellac						
Clear	730					
Pigmented	550					
Stains	350					
Swimming Pool Coatings						
Repair	650					
Other	340					
Traffic Coatings	250		150			
Waterproofing Sealers	400					
Wood Preservatives						
Below-Ground	350					
Other	350					

* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 11-8-1996]

TABLE OF STANDARDS (cont.)

VOC LIMITS

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

FACILITY PERMIT TO OPERATE

AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS **[RULE 1113 7-13-2007]**

- (1) Except as provided in paragraphs (c)(2), (c)(3), (c)(4), and specified coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage any architectural coating for use in the District which, at the time of sale or manufacture, contains more than 250 grams of VOC per liter of coating (2.08 pounds per gallon), less water, less exempt compounds, and less any colorant added to tint bases, and no person shall apply or solicit the application of any architectural coating within the District that exceeds 250 grams of VOC per liter of coating as calculated in this paragraph.
- (2) Except as provided in paragraphs (c)(3), (c)(4), and designated coatings averaged under (c)(6), no person shall supply, sell, offer for sale, manufacture, blend, or repackage, for use within the District, any architectural coating listed in the Table of Standards which contains VOC (excluding any colorant added to tint bases) in excess of the corresponding VOC limit specified in the table, after the effective date specified, and no person shall apply or solicit the application of any architectural coating within the District that exceeds the VOC limit as specified in this paragraph. No person shall apply or solicit the application within the District of any industrial maintenance coatings, except anti-graffiti coatings, for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings; or of any rust-preventative coating for industrial use, unless such a rust preventative coating complies with the Industrial Maintenance Coating VOC limit specified in the Table of Standards.

FACILITY PERMIT TO OPERATE

AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-13-2007]

TABLE OF STANDARDS VOC LIMITS

**Grams of VOC Per Liter of Coating,
 Less Water and Less Exempt Compounds**

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Bond Breakers	350							
Clear Wood Finishes	350					275		
Varnish	350					275		
Sanding Sealers	350					275		
Lacquer	680	550			275			
Clear Brushing Lacquer	680				275			
Concrete-Curing Compounds	350						100	
Concrete-Curing Compounds For Roadways and Bridges**	350							
Dry-Fog Coatings	400						150	
Fire-Proofing Exterior Coatings	450	350						
Fire-Retardant Coatings***								
Clear	650							
Pigmented	350							
Flats	250	100						50
Floor Coatings	420		100			50		
Graphic Arts (Sign) Coatings	500							
Industrial Maintenance (IM) Coatings	420			250		100		
High Temperature IM Coatings			420					
Zinc-Rich IM Primers	420		340			100		
Japans/Faux Finishing Coatings	700	350						
Magnesite Cement Coatings	600	450						
Mastic Coatings	300							
Metallic Pigmented Coatings	500							
Multi-Color Coatings	420	250						
Nonflat Coatings	250		150			50		
Nonflat High Gloss	250		150				50	

FACILITY PERMIT TO OPERATE AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS [RULE 1113 7-13-2007]

COATING CATEGORY	Ceiling Limit*	Current Limit	Effective Date					
			1/1/03	1/1/04	1/1/05	7/1/06	7/1/07	7/1/08
Pigmented Lacquer	680	550			275			
Pre-Treatment Wash Primers	780		420					
Primers, Sealers, and Undercoaters	350		200			100		
Quick-Dry Enamels	400		250			150	50	
Quick-Dry Primers, Sealers, and Undercoaters	350		200			100		
Recycled Coatings			250					
Roof Coatings	300		250		50			
Roof Coatings, Aluminum	500				100			
Roof Primers, Bituminous	350		350					
Rust Preventative Coatings	420		400			100		
Shellac								
Clear	730							
Pigmented	550							
Specialty Primers	350					250	100	
Stains	350		250				100	
Stains, Interior	250							
Swimming Pool Coatings								
Repair	650		340					
Other	340							
Traffic Coatings	250	150					100	
Waterproofing Sealers	400		250			100		
Waterproofing	400					100		
Concrete/Masonry Sealers								
Wood Preservatives								
Below-Ground	350							
Other	350							

* The specified limits remain in effect unless revised limits are listed in subsequent columns in the Table of Standards.

** Does not include compounds used for curbs and gutters, sidewalks, islands, driveways and other miscellaneous concrete areas.

*** The Fire-Retardant Coating category will be eliminated on January 1, 2007 and subsumed by the coating category for which they are formulated.

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1113 7-13-2007]

TABLE OF STANDARDS (cont.)
VOC LIMITS

Grams of VOC Per Liter of Material

COATING	Limit
Low-Solids Coating	120

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-7-2003]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application	
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	500 (4.2)
(iii) Medical Devices & Pharmaceuticals	800 (6.7)
(B) Repair and Maintenance Cleaning	
(i) General	25 (0.21)
(ii) Electrical Apparatus Components & Electronic Components	900 (7.5)
(iii) Medical Devices & Pharmaceuticals	
(A) Tools, Equipment, & Machinery	800 (6.7)
(B) General Work Surfaces	600 (5.0)

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-7-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(C) Cleaning of Coatings or Adhesives Application Equipment	550 (4.6)
(D) Cleaning of Ink Application Equipment	
(i) General	25 (0.21)
(ii) Flexographic Printing	25 (0.21)
(iii) Gravure Printing	
(A) Publication	750 (6.3)
(B) Packaging	25 (0.21)
(iv) Lithographic or Letter Press Printing	
(A) Roller Wash – Step 1	600 (5.0)
(B) Roller Wash-Step 2, Blanket Wash, & On-Press Components	800 (6.7)
(C) Removable Press Components	25 (0.21)
(v) Screen Printing	750 (6.3)
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	800 (6.7)

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AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 11-7-2003]

SOLVENT CLEANING ACTIVITY	CURRENT LIMITS
	VOC g/l (lb/gal)
(vii) Specialty Flexographic Printing	600 (5.0)
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 2-1-2008]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		
(iii) Medical Devices & Pharmaceuticals	800 (6.7)		
(B) Repair and Maintenance Cleaning			
(i) General	25 (0.21)		
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)		

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 2-1-2008]

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY (cont.)	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(iii) Medical Devices & Pharmaceuticals			
(A) Tools, Equipment, & Machinery	800 (6.7)		
(B) General Work Surfaces	600 (5.0)		
(C) Cleaning of Coatings or Adhesives Application Equipment	25 (0.21)		
(D) Cleaning of Ink Application Equipment			
(i) General	25 (0.21)		
(ii) Flexographic Printing	25 (0.21)		
(iii) Gravure Printing			
(A) Publication	100 (0.83)		
(B) Packaging	25 (0.21)		
(iv) Lithographic (Offset) or Letter Press Printing			
(A) Roller Wash, Blanket Wash, & On-Press Components			
(I) Newsprint	100 (0.83)		

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 2-1-2008]

	CURRENT LIMITS*	EFFECTIVE 1/1/2008*	EFFECTIVE 1/1/2009
SOLVENT CLEANING ACTIVITY (cont.)	VOC g/l (lb/gal)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(II) Other Substrates	500 (4.2)	100 (0.83)	
(B) Removable Press Components	25 (0.21)		
(v) Screen Printing	500 (4.2)	100 (0.83)	
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	650 (5.4)	650 (5.4)	100 (0.83)
(vii) Specialty Flexographic Printing	100 (0.83)		
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)		

* The specified limits remain in effect unless revised limits are listed in subsequent columns.

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 7-14-2006]

(1) Solvent Requirements

A person shall not use a solvent to perform solvent cleaning operations unless the solvent complies with the applicable requirements set forth below:

	CURRENT LIMITS*	EFFECTIVE 1/1/2008
SOLVENT CLEANING ACTIVITY	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(A) Product Cleaning During Manufacturing Process Or Surface Preparation For Coating, Adhesive, Or Ink Application		
(i) General	25 (0.21)	
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)	
(iii) Medical Devices & Pharmaceuticals	800 (6.7)	
(B) Repair and Maintenance Cleaning		
(i) General	25 (0.21)	
(ii) Electrical Apparatus Components & Electronic Components	100 (0.83)	

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 7-14-2006]

	CURRENT LIMITS*	EFFECTIVE 1/1/2008
SOLVENT CLEANING ACTIVITY (cont.)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(iii) Medical Devices & Pharmaceuticals		
(A) Tools, Equipment, & Machinery	800 (6.7)	
(B) General Work Surfaces	600 (5.0)	
(C) Cleaning of Coatings or Adhesives Application Equipment	25 (0.21)	
(D) Cleaning of Ink Application Equipment		
(i) General	25 (0.21)	
(ii) Flexographic Printing	25 (0.21)	
(iii) Gravure Printing		
(A) Publication	100 (0.83)	
(B) Packaging	25 (0.21)	
(iv) Lithographic (Offset) or Letter Press Printing		
(A) Roller Wash, Blanket Wash, & On-Press Components		
(I) Newsprint	100 (0.83)	

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 1171 7-14-2006]

	CURRENT LIMITS*	EFFECTIVE 1/1/2008
SOLVENT CLEANING ACTIVITY (cont.)	VOC g/l (lb/gal)	VOC g/l (lb/gal)
(II) Other Substrates	500 (4.2)	100 (0.83)
(B) Removable Press Components	25 (0.21)	
(v) Screen Printing	500 (4.2)	100 (0.83)
(vi) Ultraviolet Ink/ Electron Beam Ink Application Equipment (except screen printing)	650 (5.4)	100 (0.83)
(vii) Specialty Flexographic Printing	100 (0.83)	
(E) Cleaning of Polyester Resin Application Equipment	25 (0.21)	

* The specified limits remain in effect unless revised limits are listed in subsequent columns.

FACILITY PERMIT TO OPERATE

AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS [RULE 404 2-7-1986]

The operator shall not discharge into the atmosphere from this equipment, particulate matter in excess of the concentration at standard conditions, shown in Table 404(a).

Where the volume discharged is between figures listed in the Table, the exact concentration permitted to be discharged shall be determined by linear interpolation.

For the purposes of this rule, emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.

TABLE 404(a)

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
		Milligrams per Cubic Meter	Grains per Cubic Foot			Milligrams per Cubic Meter	Grains per Cubic Foot
Cubic meters Per Minute	Cubic feet Per Minute			Cubic meters Per Minute	Cubic feet Per Minute		
25 or less	883 or less	450	0.196	900	31780	118	0.0515
30	1059	420	.183	1000	35310	113	.0493
35	1236	397	.173	1100	38850	109	.0476
40	1413	377	.165	1200	42380	106	.0463
45	1589	361	.158	1300	45910	102	.0445
50	1766	347	.152	1400	49440	100	.0437
60	2119	324	.141	1500	52970	97	.0424
70	2472	306	.134	1750	61800	92	.0402

FACILITY PERMIT TO OPERATE
AIR PROD & CHEM INC

APPENDIX B: RULE EMISSION LIMITS
[RULE 404 2-7-1986]

Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions		Volume Discharged Calculated as Dry Gas At Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
Cubic meters Per Minute	Cubic feet Per Minute	Milligrams per Cubic Meter	Grains per Cubic Foot	Cubic meters Per Minute	Cubic feet Per Minute	Milligrams per Cubic Meter	Grains per Cubic Foot
80	2825	291	.127	2000	70630	87	.0380
90	3178	279	.122	2250	79460	83	.0362
100	3531	267	.117	2500	88290	80	.0349
125	4414	246	.107	3000	105900	75	.0327
150	5297	230	.100	4000	141300	67	.0293
175	6180	217	.0947	5000	176600	62	.0271
200	7063	206	.0900	6000	211900	58	.0253
250	8829	190	.0830	8000	282500	52	.0227
300	10590	177	.0773	10000	353100	48	.0210
350	12360	167	.0730	15000	529700	41	.0179
400	14130	159	.0694	20000	706300	37	.0162
450	15890	152	.0664	25000	882900	34	.0148
500	17660	146	.0637	30000	1059000	32	.0140
600	21190	137	.0598	40000	1413000	28	.0122
700	24720	129	.0563	50000	1766000	26	.0114
800	28250	123	.0537	70000 or more	2472000 or more	23	.0100