



FACILITY PERMIT TO OPERATE AIR PRODUCTS AND CHEMICAL, 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	Source Type/ Monitoring Unit	Emissions And Requirements	Conditions
Process 1: HYDROGEN PRODUCTION PLANT (Refined Gas for Reforming)					
System 1: HYDROGEN PRODUCTION - 88.0 MMBTU/HR DESIGNATED CAPACITY					S2.1, S13.1, S31.1
HEATER, E-451, METHANATOR PRE-HEAT, 75 KW ELECTRICALLY HEATED A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew1				
REACTOR, METHANATOR, V-451, DIAMETER: 4 FT 6 IN; LENGTH: 5 FT A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew2				
HEAT EXCHANGER, E-452, ECONOMIZER, METHANATOR PRODUCT: 0.461 MMBTU/HR, SHELL AND TUBE TYPE A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew3				
COOLER, E-455, PURE H2 PRODUCT CONDENSER, CRYOQUIP MODEL NO. VAL-1248-SSBL23, 0.092 MMBTU/HR, AMBIENT VAPORIZER A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew4				
VESSEL, V-452/B, MOLECULAR SIEVE DRIER, 2 IN PARALLEL, WITH REGENERATION VENT TO ATMOSPHERE, DIAMETER: 2 FT; LENGTH: 7 FT EACH A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew5			CO: 2000 PPMV (5) [RULE 407, 4-2-1982]	D28.x, D332.1, E336.x

- * (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.



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Process 1: HYDROGEN PRODUCTION PLANT (Reforming)					
COMPRESSOR, E-453/454, PURE H2 PRODUCT, 2 TOTAL, 100 HP EACH A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew6				
LOADING ARM, H2 TRAILER, STANCHIONS A/B, PURE H2 PRODUCT, 2 TOTAL A/N 547681 Permit to Construct Issued: XX/XX/13	Dnew7				

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



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

DEVICE CONDITIONS

D. Monitoring/Testing Requirements

D28.x The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted during the first drier regeneration following startup of this equipment while H2 product is being vented.

The District shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the CO emissions.

The test shall be conducted to determine the CH4 emissions.

The test shall be conducted to determine the VOC emissions.

[RULE 1301(b)(1) - NSR Applicability, 12-7-1995; RULE 1703 - PSD Analysis, 10-7-1988; RULE 1714 - PSD for Greenhouse Gases, 11-5-2010]

[Devices subject to this condition: Dnew5]

D332.1 The operator shall determine compliance with the CO emission limit(s) by conducting a test at least every five years using a portable analyzer and AQMD-approved test method or, if not available, a non-AQMD approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with the CO emission limit. The operator shall comply with all general testing, reporting, and recordkeeping requirements in Sections E and K of this permit.

[RULE 3004(a)(4) - Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: D31, D32, D35, Dnew5]

E. Equipment Operation/Construction Requirements

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

The drier regeneration vent shall vent to atmosphere only during periods of drier regeneration. Drier regeneration shall occur no more than once per day.



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[RULE 1714 -PSD for Greenhouse Gases, 11-5-2010]

[Devices subject to this condition: Dnew5]

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