



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

October 26, 2012

Mr. Gerardo Rios
Chief – Permits Office
U. S. EPA, Region IX
75 Hawthorne Street, Air 3
San Francisco, CA 94105

Dear Mr. Rios:

Subject: Rhodia Inc. (ID 114801) – Title V Permit Revision

Rhodia Inc. (ID 114801) has proposed to revise their Title V permit under Application No. 535779 by installing a Soil Vapor Extraction (SVE) system for the in-situ treatment of the contaminated soil. Rhodia, Inc. is a sulfuric acid regeneration plant (SIC 2819) located at 20720 South Wilmington Avenue, Carson, CA 90810. This proposed permit revision is considered as a “De Minimis Significant permit revision” to their Title V permit. Attached for your review are the evaluation and permit for the proposed revision. With your expected receipt of the proposed Title V permit revision today, we will note that the EPA 45-day review period begins on October 26, 2012.

If you have any questions or need additional information regarding the proposed permit revision, please call Stephen Jiang of my staff at (909) 396-3134.

Very truly yours,

A handwritten signature in black ink, appearing to read "Brian L. Yeh".

Brian L. Yeh
Senior Manager
Mechanical, Chemical & Public Services

BLY:AYL:SYJ
Attachments

FACILITY PERMIT TO OPERATE

**RHODIA INC.
20720 S WILMINGTON AVE
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 _____
Mohsen Nazemi, P.E.
Deputy Executive Officer
Engineering & Compliance

FACILITY PERMIT TO OPERATE RHODIA INC.

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A	NOx and SOx Emitting Equipment Exempt From Written Permit Pursuant to Rule 219	DRAFT	10/26/2012
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FACILITY PERMIT TO OPERATE RHODIA 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 1: CHEMICAL MANUFACTURING, INORGANIC CHEMICAL					
System 1: SULFURIC ACID PLANT NO.4					S13 I, S42.1, S42.2
FURNACE WITH TWO LOW NOX BURNERS, FUEL OIL, NATURAL GAS, 2 SULFUR, 13 ACID BURNERS, 1 NOZZLE FOR VENT GAS FROM THE SPENT H2SO4 TANKS WITH A/N: 474589	D1	D18 D19 D20 D21 D86 D87 D88 D89 D90 D91 D115 D116 C124	NOX MAJOR SOURCE** SOX MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982], H2SO4 MIST 0.15 LBS/TON PRODUCED (8A) [40CFR 60 Subpart H, 10-17-2000; CONSENT DECREE CIVIL NO. 2:07CV134WL, 7-23-2007], H2SO4 MIST 0.3 LBS/TON PRODUCED (5) [RULE 469, 5-7-1976; RULE 469, 2-13-1981], H2SO4 MIST 10 PERCENT OPACITY (8B) [40CFR 60 Subpart H, 10-17-2000], PM (9) [RULE 404, 2-7-1986], PM 0.1 GRAINS/SCF (5) [RULE 2011, 5-6-2005; RULE 409, 8-7-1981], SO2: 3.5 LBS/TON PRODUCED (5) [CONSENT DECREE CIVIL NO. 2:07CV134WL, 7-23-2007], SO2: 4 LBS/TON PRODUCED (8A) [40CFR 60 Subpart H, 10-17-2000]	D82 I, D323 I
BURNER, FUEL OIL, NATURAL GAS, JOHN ZINK, TWO LOW NOX BURNERS, 75 MMBTU/HR EACH					
BOILER, WASTE HEAT AND 12 SOOT BLOWERS A/N: 474589	D2				
TOWER, GAS QUENCH A/N: 474589	D3				

- * (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

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Process 1: CHEMICAL MANUFACTURING, INORGANIC CHEMICAL					
COLUMN, STRIPPER, QUENCH ACID A/N: 474589	D6				
TOWER, GAS COOLING, PACKED TYPE A/N: 474589	D4				
COLUMN, STRIPPER, EFFLUENT WATER A/N: 474589	D5				
ELECTROSTATIC PRECIPITATOR, IN SERIES WITH DEVICE NO 8 A/N: 474589	D7	D8			
ELECTROSTATIC PRECIPITATOR, IN SERIES WITH DEVICE NO 7, COMBINED LOAD 160 KW A/N: 474589	D8	D7			
ABSORBER, DRYING, PACKED TYPE, WITH INTERNAL MIST ELIMINATOR A/N: 474589	D10	C149			
COMPRESSOR, MAIN PROCESS, CENTRIFUGAL A/N: 474589	D9				D82.2
REACTOR, CATALYTIC CONVERTER, HEIGHT 66 FT, DIAMETER 32 FT 6 IN A/N: 474589	D15				
ABSORBER, INTERMEDIATE, PACKED TYPE WITH INTERNAL MIST ELIMINATOR A/N: 474589	D11				
COLUMN, STRIPPER, PACKED TYPE, PRODUCT ACID A/N: 474589	D14				

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Process 1: CHEMICAL MANUFACTURING, INORGANIC CHEMICAL					
ABSORBER, FINAL, PACKED TYPE, WITH INTERNAL MIST ELIMINATOR A/N: 474589	D13	C148			
STACK, HEIGHT: 215 FT., DIAMETER: 6 FT A/N: 474589	S17				D82.3
COOLING TOWER, WATER A/N: 474589	D16				
PIT, SULFUR, WIDTH: 24 FT., DEPTH: 6 FT 6 IN. LENGTH: 26 FT A/N: 474589	D130				
System 2: HEAVY SLUDGE/FUEL OIL LOADING/UNLOADING					
LOADING AND UNLOADING ARM, BOTTOM, TANK TRUCK, HEAVY SLUDGE, WITH NITROGEN BLANKET A/N: 382944	D18	D1 C121			E57.2
LOADING AND UNLOADING ARM, BOTTOM, TANK TRUCK, HEAVY SLUDGE, WITH NITROGEN BLANKET A/N: 382944	D19	D1 C121			E57.2
LOADING AND UNLOADING ARM, TANK TRUCK, TOP, HEAVY SLUDGE, WITH NITROGEN BLANKET A/N: 382944	D20	D1 C121			E57.2
LOADING AND UNLOADING ARM, TANK TRUCK, TOP, HEAVY SLUDGE, WITH NITROGEN BLANKET A/N: 382944	D21	D1 C121			E57.2

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Process 1: CHEMICAL MANUFACTURING, INORGANIC CHEMICAL					
System 4: ACID LOADING/UNLOADING FACILITY					
UNLOADING ARM, BOTTOM, SPENT ACID, DIAMETER 3 IN A/N 374403	D24	C124			
UNLOADING ARM, TOP, SPENT ACID, DIAMETER 3 IN A/N 374403	D25	C124			
LOADING AND UNLOADING ARM, TANK CAR, SPENT ACID, DIAMETER 3 IN A/N 374403	D26	C124			E178.1
LOADING AND UNLOADING ARM, TANK CAR, SPENT ACID, DIAMETER 3 IN A/N 374403	D27	C124			E178.1
LOADING AND UNLOADING ARM, TANK CAR, SPENT ACID, DIAMETER 3 IN A/N 374403	D28	C124			E178.1
LOADING AND UNLOADING ARM, SULFURIC ACID, DIAMETER 3 IN A/N 337068	D117	C124			
LOADING AND UNLOADING ARM, SULFURIC ACID, DIAMETER 3 IN A/N 337068	D118	C124			
LOADING AND UNLOADING ARM, SULFURIC ACID, DIAMETER 3 IN A/N 337068	D119	C124			
LOADING AND UNLOADING ARM, SULFURIC ACID, DIAMETER 3 IN A/N 337068	D120	C124			
System 6: SPENT SULFURIC ACID TRUCK UNLOADING					

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Process 1: CHEMICAL MANUFACTURING, INORGANIC CHEMICAL					
UNLOADING ARM, TANK TRUCK, SPENT SULFURIC ACID A/N: 339077	D33				
System 8: AIR POLLUTION CONTROL SYSTEM					
TANK, SCRUBBER SEAL POT SP-1, HEIGHT: 6 FT 7 IN, DIAMETER: 3 FT 6 IN A/N: 337071	C124	D1 D24 D25 D26 D27 D28 D117 D118 D119 D120 C121			
TANK, SCRUBBER SEAL POT SP-2, HEIGHT: 6 FT 7 IN, DIAMETER: 3 FT 6 IN A/N: 337071	C125	D87 D88 D89 D90 D91 D115 D116 C121			
SCRUBBER, VENTURI, ENVIRONMENTAL SYSTEMS TECHNOLOGY A/N: 337071	C121	D18 D19 D20 D21 D86 C122 C124 C125			A72 1, C8 3, C8 4
SCRUBBER, PACKED BED, SCR-246, ENVIRONMENTAL SYSTEMS TECHNOLOGY A/N: 337071	C122	C121 C123			A72 1, C8 3, C8 5
MIST ELIMINATOR A/N: 337071	C123	C122 C126		PM (9) [RULE 404, 2-7-1986]	D323 1
FLARE, ELEVATED WITHOUT STEAM, F-2, NATURAL GAS, NAO INC. WITH ONE BURNER, CENTER GAS ASSISTED TYPE, LENGTH 1.09 MMBTU/HR A/N: 337071	C126	C123		CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982]; PM (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981]	D90 1, D323 1
Process 2: CHEMICAL MANUFACTURING, ALUMINUM SULFATE					
System 1: ALUMINUM SULFATE MANUFACTURING					

- * (1) (1A) (1B) Denotes RECLAIM emission factor
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Process 2: CHEMICAL MANUFACTURING, ALUMINUM SULFATE					
HOPPER, WEIGH. 17 TONS A/N 339078	D37			PM (9) [RULE 405, 2-7-1986]	D323 2
COOKER, R-101, CAPACITY 25,000 GALLONS A/N 339078	D38	C54		PM (9) [RULE 405, 2-7-1986]	C6 2, D323 2
TANK, HOLDING, T-102, FLOCCULENT ADDITIVE, 300 GALS A/N 339078	D39				
TANK, HOLDING, T-115, SLURRY WATER, 3500 GALS A/N 339078	D40				
TANK, HOLDING, T-109, PRECOAT, 300 GALS A/N 339078	D41				
TANK, HOLDING, T-122, 100 GALS A/N 339078	D42				
TANK, HOLDING, T-103, LIQUOR, LIQUOR, 120000 GALS A/N 339078	D43				
TANK, HOLDING, T-120, 16000 GALS A/N 339078	D44				
TANK, HOLDING, T-121, LIQUOR, 42000 GALS A/N 339078	D45				
TANK, HOLDING, T-104, MUD, OPEN TYPE, 20000 GALS A/N 339078	D46				
TANK, HOLDING, T107, MUD, OPEN TYPE, 20000 GALS A/N 339078	D47				
TANK, HOLDING, T-110, MUD WASH WATER, 16000 GALS A/N 339078	D48				

- | | |
|---|---|
| <p>* (1) (1A) (1B) Denotes RECLAIM emission factor
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Process 2: CHEMICAL MANUFACTURING, ALUMINUM SULFATE					
TANK, HOLDING, T-111, MUD WASH WATER, FIXED ROOF, 20000 GALS A/N: 339078	D49				
TANK, HOLDING, T-101, ACID, 10000 GALS A/N: 339078	D50				
CONVEYOR, SCREW, CS-102 A/N: 339078	D53			PM (9) [RULE 405, 2-7-1986]	D323 2
System 2: AIR POLLUTION CONTROL					
SCRUBBER, C-101, SLY IMPINJET, NO 14G, FRP, HEIGHT: 8 FT 9 IN. DIAMETER 4 FT A/N: 339074	C54	D38			C8 1, C8 6, D323 1, H23 2
System 3: ALUMINA TRIHYDRATE HANDLING					
CONVEYOR, PNEUMATIC, ALUMINA TRIHYDRATE A/N: 433935	D145			PM (9) [RULE 404, 2-7-1986]	D323 2
STORAGE SILO, B-101, HEIGHT 38 FT 4 IN. DIAMETER 17 FT WITH A/N: 433935	D64	C146		PM (9) [RULE 405, 2-7-1986]	D381 1
FILTER, CYCLONAIRE, MODEL 58-D-36, 259 SQ.FT.	C146	D64		PM (9) [RULE 404, 2-7-1986]	D322 1, D381 1, H23 2, K67 2
CONVEYOR, SCREW, BAUXITE A/N: 433935	D142			PM (9) [RULE 405, 2-7-1986]	D323 2
HOPPER, FEED A/N: 433935	D57			PM (9) [RULE 405, 2-7-1986]	D323 2
CONVEYOR, SCREW, BAUXITE A/N: 433935	D141			PM (9) [RULE 405, 2-7-1986]	D323 2
BUCKET ELEVATOR, CE-101 A/N: 433935	D56			PM (9) [RULE 405, 2-7-1986]	D323 2

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Process 4: STORAGE, INORGANIC CHEMICALS					
STORAGE TANK, FIXED ROOF, NO 218A, 10000 BBL, DIAMETER: 48 FT, HEIGHT 30 FT A/N: 339066	D90	D1 C125			
STORAGE TANK, FIXED ROOF, NO 200, 148000 GALS, DIAMETER: 30 FT, HEIGHT 28 FT A/N: 339061	D91	D1 C125			
STORAGE TANK, T-105, LENGTH: 37 FT, DIAMETER 7 FT A/N: 339080	D94				
STORAGE TANK, FIXED ROOF, NO. 225, SULFURIC ACID, 572000 GALS, DIAMETER 57 FT, HEIGHT 30 FT A/N: 337062	D115	D1 C125			
STORAGE TANK, FIXED ROOF, NO. 224, SULFURIC ACID, 572000 GALS, DIAMETER 57 FT, HEIGHT 30 FT A/N: 337065	D116	D1 C125			
Process 5: PROCESS FURNACE					
FURNACE, PREHEAT, NATURAL GAS, 50 MMBTU/HR A/N: 474589	D98		NOX LARGE SOURCE** SOX PROCESS UNIT**	CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982], NOX: 101.556 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005], PM: (9) [RULE 404, 2-7-1986], PM 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981], SOX: 0.83 LBS/MMSCF NATURAL GAS (1) [RULE 2011, 5-6-2005]	CI 1, D12 1, D323 1
Process 6: EXTERNAL COMBUSTION, INDUSTRIAL BOILER					

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Process 6: EXTERNAL COMBUSTION, INDUSTRIAL BOILER					
BOILER, NATURAL GAS, RENTECH, WITH LOW NOX BURNER, 49 MMBTU/HR A/N: 364248	D139		NOX LARGE SOURCE**, SOX PROCESS UNIT**	CO: 400 PPMV NATURAL GAS (5A) [RULE 1146, 9-5-2008], CO: 2000 PPMV NATURAL GAS (5) [RULE 407, 4-2-1982], NOX: 36.855 PPMV NATURAL GAS (3) [RULE 2012, 5-6-2005], PM: (9) [RULE 404, 2-7-1986], PM: 0.1 GRAINS/SCF NATURAL GAS (5) [RULE 409, 8-7-1981], SOX: 0.83 LBS/MMSCF NATURAL GAS (1) [RULE 2011, 5-6-2005]	C1.1, D12.1, D323.1, D328.1, D328.2, E71.1, E113.1, K40.2, K67.1
Process 7: INTERNAL COMBUSTION					
INTERNAL COMBUSTION ENGINE, DIESEL FUEL, DETROIT, MODEL 7063-7000, SERIAL NO 6VH101266, EMERGENCY, 180 HP A/N: 337057	D100		NOX PROCESS UNIT**, SOX PROCESS UNIT**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982], NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005], PM: (9) [RULE 404, 2-7-1986], SOX: 6.24 LBS/1000 GAL DIESEL (1) [RULE 2011, 5-6-2005]	D12.2, D323.1, E448.1, H23.3, K67.5
Process 8: CONSUMER FLEET REFUELING					
STORAGE TANK, FIXED ROOF, GASOLINE, DIESEL FUEL, 2 COMPARTMENTS EACH 1,000 GALS., ABOVEGROUND, WITH SUBMERGED FILLING, VAPOR LOCK BALANCE RECOVERY SYSTEM, 1000 GALS, WIDTH 13 FT, HEIGHT 5 FT, LENGTH 13 FT 2 IN A/N: 339068	D110				C1.2, C1.3, D330.1, J109.1

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FUEL DISPENSING NOZZLE, BALANCE TYPE PHASE II CONTROL, GASOLINE A/N 339068	D113				D330.1, J110.1
Process 9: STORAGE, PETROLEUM PRODUCTS					
STORAGE TANK, FIXED ROOF, NO.306, FUEL OIL NO. 6, 126000 GALS, DIAMETER: 29 FT. 9 IN, HEIGHT: 24 FT. 2 IN A/N: 337059	D105				H23.1
STORAGE TANK, FIXED ROOF, NO. 302, FUEL OIL NO. 6, DIESEL FUEL, 126000 GALS, DIAMETER: 29 FT. 9 IN, HEIGHT: 24 FT. 2 IN A/N: 337058	D106				H23.1
Process 10: MAINTAINANCE					
PLASMA ARC CUTTER, SPECTRUM 500 A/N: 383542	D147				C1.4, C1.5, D323.2, K67.4
Process 11: Miscellaneous					
System 1: IN-SITU SOIL VAPOR EXTRACTION					S13.2

- * (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 RHODIA 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 11: Miscellaneous					
ADSORBER, 2 CHAMBERS IN SERIES, WITH A MOISTURE KNOCK-OUT DRUM WITH A/N 535781	C152	D153			A433 1. A433 2. B163 1, C1.6. D90 2, D90.3. D90 4, E224.1. E448 2. E448 3, K67.6
HEAT EXCHANGER, AIR-TO-AIR					
STACK, HEIGHT 21 FT, DIAMETER, 4 IN					
VAPOR EXTRACTION WELL, WITH DUCTS A/N 535781	D153	C152			E336 1
Process 12: Rule 219 Exempt Equipment Subject to Source-Specific Requirements					
System 1: RULE 219 EXEMPT					
RULE 219 EXEMPT EQUIPMENT, ABRASIVE BLASTING EQUIPMENT, GLOVE-BOX, <= 53 FT3, WITH DUST FILTER	E131			PM (9) [RULE 1140, 2-1-1980; RULE 1140, 8-2-1985, RULE 404, 2-7-1986; RULE 405, 2-7-1986]	D322 1. D323 1. E102 1, K67.2
RULE 219 EXEMPT EQUIPMENT, COOLING TOWERS	E133			TOTAL CR (6) [RULE 1404, 4-6-1990]	
RULE 219 EXEMPT EQUIPMENT, COATING EQUIPMENT, PORTABLE, ARCHITECTURAL COATINGS	E134			ROG (9) [RULE 1113, 11-8-1996; RULE 1113, 7-13-2007, RULE 1171, 11-7-2003; RULE 1171, 5-1-2009]	K67 3

- * (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 RHODIA 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 12: Rule 219 Exempt Equipment Subject to Source-Specific Requirements					
RULE 219 EXEMPT EQUIPMENT, SMALL BOILERS, WATER HEATERS AND PROCESS HEATERS, >1 MMBTU/HR AND <= 2 MMBTU/HR	E135			CO: 400 PPMV NATURAL GAS (5) [RULE 1146.2, 5-5-2006]; CO: 2000 PPMV NATURAL GAS (5A) [RULE 407, 4-2-1982]; NOX: 30 PPMV NATURAL GAS (5) [RULE 1146.2, 5-5-2006]; PM10 0.1 GRAINS/SCF MATERIAL (5) [RULE 409, 8-7-1981]	
RULE 219 EXEMPT EQUIPMENT, AIR CONDITIONING UNITS	E136			VOC: (5B) [RULE 1415, 10-14-1994, 40CFR 82 Subpart F, 5-14-1993]	

- * (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
RHODIA 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
 RHODIA INC.**

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	Section D Page No.	Process	System
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D2	1	1	1
D3	1	1	1
D4	2	1	1
D5	2	1	1
D6	2	1	1
D7	2	1	1
D8	2	1	1
D9	2	1	1
D10	2	1	1
D11	2	1	1
D13	3	1	1
D14	2	1	1
D15	2	1	1
D16	3	1	1
S17	3	1	1
D18	3	1	2
D19	3	1	2
D20	3	1	2
D21	3	1	2
D24	4	1	4
D25	4	1	4
D26	4	1	4
D27	4	1	4
D28	4	1	4
D33	5	1	6
D37	6	2	1
D38	6	2	1
D39	6	2	1
D40	6	2	1
D41	6	2	1
D42	6	2	1
D43	6	2	1
D44	6	2	1
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**FACILITY PERMIT TO OPERATE
 RHODIA INC.**

SECTION D: DEVICE ID INDEX

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D47	6	2	1
D48	6	2	1
D49	7	2	1
D50	7	2	1
D53	7	2	1
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D56	7	2	3
D57	7	2	3
D60	8	2	3
D61	8	2	3
D64	7	2	3
D85	8	4	0
D86	8	4	0
D87	8	4	0
D88	8	4	0
D89	8	4	0
D90	9	4	0
D91	9	4	0
D94	9	4	0
D98	9	5	0
D100	10	7	0
D105	11	9	0
D106	11	9	0
D110	10	8	0
D113	11	8	0
D115	9	4	0
D116	9	4	0
D117	4	1	4
D118	4	1	4
D119	4	1	4
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C122	5	1	8
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**FACILITY PERMIT TO OPERATE
 RHODIA INC.**

SECTION D: DEVICE ID INDEX

Device Index For Section D			
Device ID	Section D Page No.	Process	System
C124	5	1	8
C125	5	1	8
C126	5	1	8
D130	3	1	1
E131	12	12	1
E133	12	12	1
E134	12	12	1
E135	13	12	1
E136	13	12	1
D139	10	6	0
D141	7	2	3
D142	7	2	3
D145	7	2	3
C146	7	2	3
D147	11	10	0
C152	12	11	1
D153	12	11	1

FACILITY PERMIT TO OPERATE RHODIA 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]

SYSTEM CONDITIONS

S1.1 The operator shall limit the loading rate to no more than 400,000 lb(s) in any one day.

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

[Systems subject to this condition : Process 2, System 3]

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

Contaminant	Rule	Rule/Subpart
SOX	40CFR60, SUBPART	A
SOX	40CFR60, SUBPART	H

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

Sulfuric Acid Mist	40CFR60, SUBPART	A
Sulfuric Acid Mist	40CFR60, SUBPART	H

except when superseded by alternative requirements and/or procedures specified in the EPA-approved Alternative Monitoring Plan (AMP).

[40CFR 60 Subpart A, 6-13-2007; 40CFR 60 Subpart H, 10-17-2000; CONSENT DECREE CIVIL NO. 2:07CV134WL, 7-23-2007]

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

S13.2 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1166

[RULE 1166, 7-14-1995; RULE 1166, 5-11-2001]

[Systems subject to this condition : Process 11, System 1]

S42.1 The operator shall limit emissions from this system as follows:

CONTAMINANT	EMISSIONS LIMIT
SO2	Less than or equal to 3.50 lbs/ton of 100% sulfuric acid produced (3-hr rolling average)

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

For the purposes of this condition, the emission limit(s) shall not apply to periods of Startup, Shutdown, and Malfunction.

For the purposes of this condition, the emission limit(s) shall not be relaxed.

Compliance with the SO₂ emission limit shall be demonstrated using SO₂ analyzers at the converter inlet and exit stack using the following equations:

$$X_e = (M_1 - M_2) / (M_1 - 1.5 \times M_1 \times M_2)$$

$$E = (K / X_e) - K$$

Where:

X_e = the rolling 3 hour average fractional conversion efficiency

M_1 = the fractional concentration of SO₂ entering the converter (3-hour arithmetic average)

M_2 = the fractional concentration of SO₂ at the stack (3-hour arithmetic average)

E = the rolling 3 hour average SO₂ emission rate in lb/ton of 100% sulfuric acid produced

$$K = 1306$$

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; CONSENT DECREE CIVIL NO. 2:07CV134WL, 7-23-2007]

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

S42.2 The operator shall limit emissions from this system as follows::

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

CONTAMINANT	EMISSIONS LIMIT
H2SO4 MIST	Less than or equal to 0.15 lbs/ton of 100% sulfuric acid produced

For the purposes of this condition, the emission limit(s) shall not be relaxed.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; CONSENT DECREE CIVIL NO. 2:07CV134WL, 7-23-2007]

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

DEVICE CONDITIONS

A. Emission Limits

A72.1 The operator shall maintain this equipment to achieve a minimum overall control efficiency of 99.9 percent for SOX during the normal operation of the equipment it vents.

[RULE 2005, 5-6-2005]

[Devices subject to this condition : C121, C122]

A433.1 The operator shall limit the concentrations of the following compounds at the inlet of the vapor control system:

Contaminant	Concentration Limit (ppmV)	Measured as
VOC	2468	Hexane

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

To demonstrate compliance with this condition, the operator shall measure the VOC concentrations at the inlet of the adsorption system in accordance with the methods and schedules specified in Condition D90.2.

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

[Devices subject to this condition : C152]

A433.2 The operator shall limit the concentrations of the following compounds at the outlet of the vapor control system (exhaust to atmosphere):

CAS No.	Compound	Emission Limit (ppmV)
127-18-4	Tetrachloroethylene (PCE)	12.83
79-01-6	Trichloroethylene (TCE)	20.00
75-35-4	1,1-Dichloroethylene	20.00
71-43-2	Benzene	1.85
56-23-5	Carbon Tetrachloride	1.85
67-66-3	Chloroform	5.00
75-01-4	Vinyl Chloride	2.00
108-88-3	Toluene	20.00

The laboratory detection limits shall be lower than the emission limits specified above.

[RULE 1401. 9-10-2010]

[Devices subject to this condition : C152]

B. Material/Fuel Type Limits

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

B163.1 The operator shall only use in this equipment the adsorbent materials containing the following:

A minimum of 1,000 pounds of granular activated carbon in each adsorption chamber.

The activated carbon used in the adsorption chambers shall have a carbon tetrachloride activity number (CTC) of not less than 60% as measured by ASTM Method D3467-99 or a butane activity number of not less than 23.5% as measured by ASTM Method 5228-02.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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

[Devices subject to this condition : C152]

C. Throughput or Operating Parameter Limits

C1.1 The operator shall limit the heat input to no more than 90000 MM Btu in any one year.

The purpose(s) of this condition is to ensure that this equipment qualifies as a large source.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D98, D139]

C1.2 The operator shall limit the throughput to no more than 3600 gallon(s) per year.

For the purpose of this condition, throughput shall be defined as gasoline dispensed.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

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

[Devices subject to this condition : D110]

C1.3 The operator shall limit the throughput to no more than 300 gallon(s) per month.

For the purpose of this condition, throughput shall be defined as gasoline dispensed.

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

[Devices subject to this condition : D110]

C1.4 The operator shall limit the length of cut to no more than 2.0 feet in any one day.

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

[Devices subject to this condition : D147]

C1.5 The operator shall limit the operation to no more than 3 minute(s) in any one hour.

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

[Devices subject to this condition : D147]

C1.6 The operator shall limit the exhaust flow to no more than 250 cubic feet per minute.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate at the outlet of the SVE blower.

The flow rate shall be manually recorded with each monitoring visit.

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

[Devices subject to this condition : C152]

C6.2 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, does not exceed 255 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature gauge to accurately indicate the temperature of the cooker.

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

[Devices subject to this condition : D38]

C8.1 The operator shall use this equipment in such a manner that the pH being monitored, as indicated below, is not less than 8.5 of the pH scale.

To comply with this condition, the operator shall install and maintain a(n) pH meter to accurately indicate the pH of the circulating water to the scrubber.

The operator shall determine and record the parameter being monitored once every 24 hours.

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

[Devices subject to this condition : C54]

C8.3 The operator shall use this equipment in such a manner that the pH being monitored, as indicated below, is not less than 8 of the pH scale.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

To comply with this condition, the operator shall install and maintain a(n) pH meter to accurately indicate the pH of the solution supplied to the venturi scrubber and to the packed scrubber.

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

[Devices subject to this condition : C121, C122]

C8.4 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 400 gpm.

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the solution supplied to the venturi scrubber.

The operator shall record the parameter being monitored once every 24 hours.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C121]

C8.5 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 48 gpm.

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the solution recirculated to the packed scrubber.

The operator shall record the parameter being monitored once every 24 hours.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : C122]

C8.6 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 65 gpm.

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the equipment.

The operator shall record the parameter being monitored once every 24 hours.

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

[Devices subject to this condition : C54]

D. Monitoring/Testing Requirements

D12.1 The operator shall install and maintain a(n) non-resettable totalizing fuel flow meter to accurately indicate the fuel usage of the equipment.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D98, D139]

D12.2 The operator shall install and maintain a(n) non-resettable elapsed time meter to accurately indicate the elapsed operating time of the engine.

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

[Devices subject to this condition : D100]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

D82.1 The operator shall install and maintain a CEMS to measure the following parameters:

SOX concentration in ppmv

[RULE 2011, 5-6-2005; 40CFR 60 Subpart H, 10-17-2000]

[Devices subject to this condition : D1]

D82.2 The operator shall install and maintain a CEMS to measure the following parameters:

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

SO₂ concentration (by volume on a dry basis, 3-hour arithmetic average)

The CEMS shall be installed at the vertical straight duct on the suction side of the main gas blower, and shall sample in accordance with the requirements of the facility's EPA-approved Alternative Monitoring Plan.

The SO₂ concentration shall be used to demonstrate compliance with Condition S42.1

The operator shall take all steps necessary to avoid CEMS breakdowns and minimize CEMS downtime. This shall include, but is not limited to, operating and maintaining the CEMS in accordance with best practices and maintaining an on-site inventory of spare parts or other supplies necessary to make rapid repairs of the equipment.

The CEMS shall be in operation at all times during which sulfur or sulfur-bearing compounds, excluding conventional fossil fuels such as natural gas or fuel oil, are being fed to the device D1, except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments).

The CEMS shall be operated and maintained in accordance with the applicable quality assurance procedures required by 40 CFR Part 60 Appendix F and SCAQMD Rule 2011 Appendix A.

For every hour of invalid data, missing data must be substituted following the procedures in District Rule 2011, Appendix A, Chapter 2, Section E - Missing Data Procedures.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; CONSENT DECREE CIVIL NO. 2:07CV134WL, 7-23-2007]

[Devices subject to this condition : D9]

D82.3 The operator shall install and maintain a CEMS to measure the following parameters:

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

SO2 concentration (by volume on a dry basis, 3-hour arithmetic average)

The SO2 concentration shall be used to demonstrate compliance with Condition S42.1

The operator shall sample stack emissions in accordance with the requirements of the facility's EPA-approved Alternative Monitoring Plan.

The operator shall take all steps necessary to avoid CEMS breakdowns and minimize CEMS downtime. This shall include, but is not limited to, operating and maintaining the CEMS in accordance with best practices and maintaining an on-site inventory of spare parts or other supplies necessary to make rapid repairs of the equipment.

The CEMS shall be in operation at all times during which sulfur or sulfur-bearing compounds, excluding conventional fossil fuels such as natural gas or fuel oil, are being fed to the device D1, except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments).

The CEMS shall be operated and maintained in accordance with the applicable quality assurance procedures required by 40 CFR Part 60 Appendix F and SCAQMD Rule 2011 Appendix A.

For every hour of invalid data, missing data must be substituted following the procedures in District Rule 2011, Appendix A, Chapter 2, Section E - Missing Data Procedures.

**[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002: CONSENT
DECREE CIVIL NO. 2:07CV134WL, 7-23-2007]**

[Devices subject to this condition : S17]

D90.1 The operator shall continuously monitor the presence of pilot flame at flare burner according to the following specifications:

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

The operator shall use flameout detector to monitor the parameter.

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

[Devices subject to this condition : C126]

D90.2 The operator shall monitor and record the VOC concentrations at the inlet and outlet of each adsorption chamber according to the following specifications:

The operator shall conduct the monitoring and recording event once a day except for the following:

The operator may conduct the monitoring and recording events according to the schedule listed in the table below, if all the wells being vapor-extracted at time have been through at least seven daily monitoring and recording events, which are conducted when no dilution air stream is added to the adsorption system inlet.

Inlet VOC Concentrations (ppmV)	Monitoring Frequency
From 1234 to 2468	Daily
From 823 to 1234	Once in two days
From 617 to 823	Once in three days
From 494 to 617	Once in four days
From 411 to 494	Once in five days
From 353 to 411	Once in six days
From 0 to 353	Once in seven days

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

The VOC concentrations shall be monitored and recorded by using a Flame Ionization Detector (FID), Photoionization Detector (PID), or SCAQMD approved organic vapor analyzer calibrated in parts per million by volume (ppmV) as Hexane (if other calibrating agent was used, it shall be correlated to and expressed as Hexane).

Prior to monitoring, calibration of the instrument shall be performed using EPA Method 21.

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

[Devices subject to this condition : C152]

D90.3 The operator shall sample and analyze the carcinogenic or toxic air contaminant concentrations at inlet and outlet of the adsorption system according to the following specifications:

Samples shall be collected and analyzed once during the first week of operation under this permit.

The laboratory analytical results shall be used to establish operation of the equipment to be in compliance with condition nos. A433.2 and E448.2.

Sampling and analysis shall be conducted by an independent laboratory per Rule 304.

Sampling shall conform to CARB Method 422 or equivalent. Samples with high moisture shall be collected using an appropriate method such as SCAQMD Method 25.1/25.3 or other methods approved by SCAQMD.

Samples shall be analyzed by EPA Method TO-3 and EPA Method TO-15 or other methods approved by SCAQMD.

[**RULE 1401, 9-10-2010**]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

[Devices subject to this condition : C152]

- D90.4 The operator shall sample and analyze the carcinogenic or toxic air contaminant and VOC concentrations at the inlet and outlet of the adsorption system according to the following specifications:

Samples shall be collected and analyzed once per month of operation.

The laboratory analytical results shall be used to verify the compliance with condition nos. A433.2 and E448.2.

Sampling shall conform to CARB Method 422 or equivalent. Samples with high moisture shall be collected using an appropriate method such as SCAQMD Method 25.1/25.3 or other methods approved by SCAQMD.

Samples shall be analyzed by EPA Method 8015/8021 and EPA Method 8260 or other methods approved by SCAQMD.

[RULE 1401, 9-10-2010]

[Devices subject to this condition : C152]

- D322.1 The operator shall perform annual inspection of the equipment and filter media for leaks, broken or torn filter media, and improperly installed filter media.

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

[Devices subject to this condition : D64, E131]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

D323.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a semi-annual basis, at least, unless the equipment did not operate during the entire semi-annual period. The routine semi-annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

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

[Devices subject to this condition : D1, C54, D98, D100, C123, C126, E131, D139]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

D323.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

If any visible emissions (not including condensed water vapor) are detected that last more than three minutes in any one hour, the operator shall verify and certify within 24 hours that the equipment causing the emission and any associated air pollution control equipment are operating normally according to their design and standard procedures and under the same conditions under which compliance was achieved in the past, and either:

- 1). Take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit; or
- 2). Have a CARB-certified smoke reader determine compliance with the opacity standard, using EPA Method 9 or the procedures in the CARB manual "Visible Emission Evaluation", within three business days and report any deviations to AQMD.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions;
- 3). Date and time visible emission was abated; and
- 4). All visible emission observation records by operator or a certified smoke reader.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

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

[Devices subject to this condition : D37, D38, D53, D56, D57, D60, D61, D141, D142, D145, D147]

D328.1 The operator shall determine compliance with the CO emission limit(s) either: (a) conducting a source test at least once every five years using AQMD Method 100.1 or 10.1; or (b) conducting a test at least annually using a portable analyzer and AQMD-approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with Rule 1146 concentration 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 : D139]

D328.2 The operator shall determine compliance with the NOX emission limit(s) either: (a) conducting a source test at least once every five years using AQMD Method 100.1 or 10.1; or (b) conducting a test at least annually using a portable analyzer and AQMD-approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with Rule 1146 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 : D139]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

D330.1 The operator shall have a person that has been trained in accordance with Rule 461 conduct a semi-annual inspection of the gasoline transfer and dispensing equipment. The first inspection shall be in accordance with Rule 461, Attachment B, the second inspection shall be in accordance with Rule 461, Attachment C, and the subsequent inspections shall alternate protocols. The operator shall keep records of the inspection and the repairs in accordance to Rule 461 and Section K of this Permit.

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

[Devices subject to this condition : D110, D113]

D381.1 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on an annual basis, at least, unless the equipment did not operate during the entire annual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours. If any visible emissions (not including condensed water vapor) are detected, the operator shall take corrective action(s) that eliminates the visible emissions within 24 hours and report the visible emissions as a potential deviation in accordance with the reporting requirements in Section K of this permit.

The operator shall keep the records in accordance with the recordkeeping requirements in Section K of this permit and the following records:

- 1). Stack or emission point identification;
- 2). Description of any corrective actions taken to abate visible emissions; and
- 3). Date and time visible emission was abated.

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

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

[Devices subject to this condition : D64]

E. Equipment Operation/Construction Requirements

E57.2 The operator shall vent this equipment to C121 whenever spent sulfuric acid is loaded/unloaded.

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

[Devices subject to this condition : D18, D19, D20, D21]

E71.1 The operator shall only use this equipment for the testing, startup and shutdown of the acid plant.

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

[Devices subject to this condition : D139]

E102.1 The operator shall discharge dust collected in this equipment only into closed containers.

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

[Devices subject to this condition : E131]

E113.1 The operator shall have the burner equipped with a control system to automatically regulate the combustion air, fuel and, if applicable, recirculated flue gas as the boiler load varies. This control system shall be adjusted and tuned at least once a year according to the manufacturer's specifications to maintain its ability to repeat the same performance at the same firing rate.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

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

[Devices subject to this condition : D139]

E178.1 The operator shall load oleum and spent acid into tank cars and tank trucks using bottom loading.

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

[Devices subject to this condition : D26, D27, D28]

E224.1 The operator shall replace the the carbon in the first chamber when the VOC concentration at the outlet of the first chamber indicates a control efficiency of less than 90 percent and reaches 25 ppmV. as Hexane. When the carbon replacement is completed, the operator shall rearrange the two chambers in a sequence of that the previous second chamber becomes the first chamber and the chamber with fresh carbon is used as second chamber.

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

[Devices subject to this condition : C152]

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

Vapor extraction wells and ducts shall be capped to prevent vapors from venting to the atmosphere. Vapors shall not be extracted from the soil unless they are vented to the vapor control system, with no detectable leak between the outlet of the blower and the outlet of the vapor control system.

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

[Devices subject to this condition : D153]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

E448.1 The operator shall comply with the following requirements:

This engine shall not be operated more than 200 hours in any one year, which includes no more than 20 hours in any one year for maintenance and testing as required in Rule 1470(c).

Operation beyond the 20 hours per year allotted for engine maintenance and testing shall be allowed only in the event of a loss of grid power or up to 30 minutes prior to a rotating outage, provided that the utility distribution company has ordered rotating outages in the control area where the engine is located or has indicated that it expects to issue such an order at a certain time, and the engine is located in a utility service block that is subject to the rotating outage.

Engine operation shall be terminated immediately after the utility distribution company advises that a rotating outage is no longer imminent or in effect.

This engine shall not be used as part of an interruptible service contract in which a facility receives a payment or reduced rates in return for reducing electric load on the grid when requested to so by the utility or the grid operator.

[RULE 1110.2, 7-9-2010; RULE 1470, 6-1-2007]

{Devices subject to this condition : D100}

E448.2 The operator shall comply with the following requirements:

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

Vapor extracted or treated by this equipment shall not contain any toxic air contaminants identified in Rule 1401, Table I, with an effective date of September 10, 2010 or earlier, except for Tetrachloroethylene (CAS No. 127-18-4), Trichloroethylene (CAS No. 79-01-6), 1,1-Dichloroethylene (CAS No. 75-35-4), Benzene (CAS No. 71-43-2), Carbon Tetrachloride (CAS No. 56-23-5), Chloroform (CAS No. 67-66-3), Vinyl Chloride (CAS No. 75-01-4), and Toluene (CAS No. 108-88-3).

Other trace Rule 1401 toxic or carcinogenic compounds, if reported, shall not exceed 20 ppbv each from the absorption system effluent. Whenever trace carcinogenic compounds are detected greater than 20 ppbv in the effluent, the applicant shall submit a screening risk analysis within 30 days to the SCAQMD. The risk from the permitted equipment shall be less than two (2) in a million.

[RULE 1401, 9-10-2010]

[Devices subject to this condition : C152]

E448.3 The operator shall comply with the following requirements:

Spent carbon removed from the system shall be stored in closed containers prior to disposal or regeneration. If disposed, disposal shall be conducted by a licensed contractor and shall be conducted in accordance with hazardous materials rules and regulations.

Wastewater removed from the knock-out drum shall be stored in closed containers prior to disposal. Disposal shall be conducted by a licensed contractor and shall be conducted in accordance with hazardous materials rules and regulations.

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

[Devices subject to this condition : C152]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

H. Applicable Rules

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

Contaminant	Rule	Rule/Subpart
VOC	District Rule	463(c)

[RULE 463, 5-6-2005]

[Devices subject to this condition : D105, D106]

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

Contaminant	Rule	Rule/Subpart
PM	District Rule	1155

[RULE 1155, 12-4-2009]

[Devices subject to this condition : C54, D64]

H23.3 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
SOX	District Rule	431.2
PM	District Rule	1470

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

[RULE 1470. 6-1-2007; **RULE 431.2, 5-4-1990**; RULE 431.2. 9-15-2000]

[Devices subject to this condition : D100]

J. Rule 461

J109.1 The operator shall use, except for diesel transfer, the phase I vapor recovery system in full operation whenever this equipment is in use. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[**RULE 461, 6-3-2005**; RULE 461. 3-7-2008]

[Devices subject to this condition : D110]

J110.1 The operator shall use, except for diesel transfer, the phase II vapor recovery system in full operation whenever gasoline from this equipment is dispensed to motor vehicles as defined in Rule 461. This system shall be installed, operated and maintained to meet all CARB certification requirements.

[**RULE 461, 6-3-2005**; RULE 461. 3-7-2008]

[Devices subject to this condition : D113]

K. Record Keeping/Reporting

K40.2 The operator shall provide to the District a source test report in accordance with the following specifications:

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

Source test results shall be submitted to the District no later than 60 days after the source test was conducted.

Emission data shall be expressed in terms of concentration (ppmv), corrected to 3 percent oxygen, dry basis.

[RULE 2005, 5-6-2005]

[Devices subject to this condition : D139]

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

Fuel usage

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D139]

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

the name of the person performing the inspection and/or maintenance of the filter media

the date, time and results of the inspection

the date, time and description of any maintenance or repairs resulting from the inspection

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D64, E131]

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

K67.3 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 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : E134]

K67.4 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

The linear feet of cut per day

The number of minutes of operation per hour

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

[Devices subject to this condition : D147]

K67.5 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

A log of engine operations documenting the total time the engine is operated each month and the specific reason for operation as: A) emergency use, B) maintenance and testing, or C) other (be specific).

In addition, for each time the engine is manually started, the log shall include the date of engine operation, the specific reason for operation, and the totalizing hour meter readings (in hours and tenths of hours) at the beginning and the end of the operation.

On or before January 15th of each year, the operator shall record in the engine operating log: A) the total hours of engine operation for the previous calendar year, and B) the total hours of engine operation for maintenance and testing for the previous calendar year.

All records required by this condition shall be retained on the premises for at least five calendar years, and shall be made available to the Executive Officer or representative upon request.

[RULE 1110.2, 7-9-2010; **RULE 1304(c)-Offset Exemption, 6-14-1996**; RULE 1470, 6-1-2007; **RULE 2012, 5-6-2005**]

[Devices subject to this condition : D100]

K67.6 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

Name of the person, and time and date conducting each monitoring event

VOC concentrations, measured by a PID or FID, at inlet and outlet of each adsorption chamber with each monitoring event

Vapor extraction flow rate with each monitoring visit

Which wells are vapor-extracted at time of each monitoring event

Whether if a dilution air stream is added to the inlet of adsorption system at time of each monitoring event

Name of the person, and time and date conducting each air sampling event

Analytical laboratory air sample results

Air sample locations and time and date when it is collected

Proper Chain-of-Custody for handling air samples

Vapor extraction flow rate with each sampling event

Name of the person, and time and date conducting carbon replacement

Name of the contractor, and time and date conducting spent carbon removal

Name of the contractor, and time and date conducting wastewater removal

The operator shall submit to the District a report summarizing the first month (or part thereof) of operation and records. Submittal shall be within 90 days of initial operation of this equipment and shall be addressed to: South Coast Air Quality Management District, P.O. Box 4941, Diamond Bar, CA 91765.

All records shall be kept on the premises for at least two years and shall be made available upon request of executive officer or his representative.

FACILITY PERMIT TO OPERATE RHODIA INC.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1401, 9-10-2010**]

[**Devices subject to this condition : C152**]

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

PAGE 1 of 13

ENGINEERING AND COMPLIANCE**APPLICATION PROCESSING AND CALCULATIONS**

APPL NO.

535779 & 535781

DATE

October 26, 2012

PROCESSED BY

S. JIANG

CHECKED BY

D. GORDON

EVALUATION REPORT FOR PERMIT TO CONSTRUCT**Applicant's Name:** RHODIA INC.

Facility ID: 114801

Mailing Address: 20720 SOUTH WILMINTON AVENUE
LONG BEACH, CALIFORNIA 90810-1034**Equipment Location:** 20720 SOUTH WILMINTON AVENUE
CARSON, CALIFORNIA 90810**EQUIPMENT DESCRIPTION**Appl. No. 535781 – New SVE System (Process 13, System 1)

Equipment	ID No.	Connected to	RECLAIM Source Type/ Monitoring Unit	Emission and Requirements	Conditions
Process 11: Miscellaneous					
System 1: IN-SITU SOIL VAPOR EXTRACTION					S13.2
CARBON ADSORBER, 2 CHAMBERS IN SERIES, WITH A MOISTURE KNOCK-OUT DRUM WITH A/N: 535781 HEAT EXCHANGER, AIR-TO-AIR STACK, HEIGHT: 21 FT, DIAMETER: 4 INCH	C152 (NEW)	D153			A433.1, A433.2, B163.1, C1.6, D90.2, D90.3, D90.4, E224.1, E448.2, E448.3, K67.6
VAPOR EXTRACTION WELLS WITH DUCTS A/N: 535781	D153 (NEW)	C152			E336.1

Appl. No. 535779 – Minor Title V Facility Permit Revision

Revision of Title V Facility Permit per Rule 301(1)(7).

PERMIT CONDITIONS

S13.2 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1166

[RULE 1166, 5-1-2001]

[Systems subject to this condition: Process 13, System 1]



ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATIONS

APPL. NO 535779 & 535781	DATE October 26, 2012
PROCESSED BY S. JIANG	CHECKED BY D. GORDON

A433.1 The operator shall limit the concentrations of the following compounds at the inlet of the vapor control system:

Contaminant	Concentration Limit (ppmV)	Measured as
VOC	2468	Hexane

To demonstrate compliance with this condition, the operator shall measure the VOC concentrations at the inlet of the adsorption system in accordance with the methods and schedules specified in Condition D90.2.

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

[Devices subject to this condition: C152]

A433.2 The operator shall limit the concentrations of the following compounds at the outlet of the vapor control system (exhaust to atmosphere):

CAS No.	Compound	Emission Limit (ppmV)
127-18-4	Tetrachloroethylene (PCE)	12.83
79-01-6	Trichloroethylene (TCE)	20.00
75-35-4	1,1-Dichloroethylene	20.00
71-43-2	Benzene	1.85
56-23-5	Carbon Tetrachloride	1.85
67-66-3	Chloroform	5.00
75-01-4	Vinyl Chloride	2.00
108-88-3	Toluene	20.00

The laboratory detection limits shall be lower than the emission limits specified above.

[RULE 1401, 9-10-2010]

[Devices subject to this condition: C152]

B163.1 The operator shall only use in this equipment the adsorbent materials containing the following:

A minimum of 1,000 pounds of granular activated carbon in each adsorption chamber.

The activated carbon used in the adsorption chambers shall have a carbon tetrachloride activity number (CTC) of not less than 60% as measured by ASTM Method D3467-99 or a butane activity number of not less than 23.5% as measured by ASTM Method 5228-02.

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

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

[Devices subject to this condition: C152]

C1.6 The operator shall limit the exhaust flow to no more than 250 cubic feet per minute.

To comply with this condition, the operator shall install and maintain a(n) flow meter to accurately indicate the flow rate at the outlet of the SVE blower.



ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATIONS

APPL. NO. 535779 & 535781	DATE. October 26, 2012
PROCESSED BY S. JIANG	CHECKED BY D. GORDON

The flow rate shall be manually recorded with each monitoring visit.

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

[Devices subject to this condition: C152]

D90.2 The operator shall monitor and record the VOC concentrations at the inlet and outlet of each adsorption chamber according to the following specifications:

The operator shall conduct the monitoring and recording event once a day except for the following:

The operator may conduct the monitoring and recording events according to the schedule listed in the table below, if all the wells being vapor-extracted at time have been through at least seven daily monitoring and recording events, which are conducted when no dilution air stream is added to the adsorption system inlet.

Inlet Concentrations (ppmV)	Monitoring Frequency
From 1234 to 2468	Daily
From 823 to 1234	Once in two days
From 617 to 823	Once in three days
From 494 to 617	Once in four days
From 411 to 494	Once in five days
From 353 to 411	Once in six days
From 0 to 353	Once in seven days

The VOC concentrations shall be monitored and recorded by using a Flame Ionization Detector (FID), Photoionization Detector (PID), or SCAQMD approved organic vapor analyzer calibrated in parts per million by volume (ppmV) as Hexane (if other calibrating agent was used, it shall be correlated to and expressed as Hexane).

Prior to monitoring, calibration of the instrument shall be performed using EPA Method 21.

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

[Devices subject to this condition: C152]

D90.3 The operator shall sample and analyze the carcinogenic or toxic air contaminant and VOC concentrations at the inlet and outlet of the adsorption system according to the following specifications:

Samples shall be collected and analyzed once during the first week of operation under this permit.

The laboratory analytical results shall be used to establish operation of the equipment to be in compliance with condition nos. A433.2 and E448.2.

Sampling and analysis shall be conducted by an independent laboratory per Rule 304.

Sampling shall conform to CARB Method 422 or equivalent. Samples with high moisture shall be collected using an appropriate method such as SCAQMD Method 25.1/25.3 or other methods approved by SCAQMD.

Samples shall be analyzed by EPA Method TO-3 and EPA Method TO-15 or other methods approved by SCAQMD.

[RULE 1401, 9-10-2010]



ENGINEERING AND COMPLIANCE

APPLICATION PROCESSING AND CALCULATIONS

APPL. NO 535779 & 535781	DATE October 26, 2012
PROCESSED BY S. JIANG	CHECKED BY D. GORDON

[Devices subject to this condition: C152]

D90.4 The operator shall sample and analyze the carcinogenic or toxic air contaminant and VOC concentrations at the inlet and outlet of the adsorption system according to the following specifications:

Samples shall be collected and analyzed once per month of operation.

The laboratory analytical results shall be used to verify the compliance with condition nos. A433.2 and E448.2.

Sampling shall conform to CARB Method 422 or equivalent. Samples with high moisture shall be collected using an appropriate method such as SCAQMD Method 25.1/25.3 or other methods approved by SCAQMD.

Samples shall be analyzed by EPA Method 8015/8021 and EPA Method 8260 or other methods approved by SCAQMD.

[RULE 1401, 9-10-2010]

[Devices subject to this condition: C152]

E224.1 The operator shall replace the carbon in the first chamber when the VOC concentration at the outlet of the first chamber indicates a control efficiency of less than 90 percent and reaches 25 ppmV, as Hexane. When the carbon replacement is completed, the operator shall rearrange the two chambers in a sequence of that the previous second chamber becomes the first chamber and the chamber with fresh carbon is used as second chamber.

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

[Devices subject to this condition: C152]

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

Vapor extraction wells and ducts shall be capped to prevent vapors from venting to the atmosphere. Vapors shall not be extracted from the soil unless they are vented to the vapor control system, with no detectable leak between the outlet of the blower and the outlet of the vapor control system.

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

[Devices subject to this condition: D153]

E448.2 The operator shall comply with the following requirements:

Vapor extracted or treated by this equipment shall not contain any toxic air contaminants identified in Rule 1401, Table I, with an effective date of September 10, 2010 or earlier, except for Tetrachloroethylene (CAS No. 127-18-4), Trichloroethylene (CAS No. 79-01-6), 1,1-Dichloroethylene (CAS No. 75-35-4), Benzene (CAS No. 71-43-2), Carbon Tetrachloride (CAS No. 56-23-5), Chloroform (CAS No. 67-66-3), Vinyl Chloride (CAS No. 75-01-4), and Toluene (CAS No. 108-88-3).

Other trace Rule 1401 toxic or carcinogenic compounds, if reported, shall not exceed 20 ppbv each in the vapor extracted or treated by this equipment. Whenever trace carcinogenic compounds are detected greater than 20 ppbv, the applicant shall submit a screening risk analysis within 30 days to the SCAQMD. The risk from the permitted equipment shall be less than eight (8) in a million.

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[RULE 1401, 9-10-2010]

[Devices subject to this condition: C152]

E448.3 The operator shall comply with the following requirements:

Spent carbon removed from the system shall be stored in closed containers prior to disposal or regeneration. If disposed, disposal shall be conducted by a licensed contractor and shall be conducted in accordance with hazardous materials rules and regulations.

Wastewater removed from the knock-out drum shall be stored in closed containers prior to disposal. Disposal shall be conducted by a licensed contractor and shall be conducted in accordance with hazardous materials rules and regulations.

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

[Devices subject to this condition: C152]

K67.6 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Name of the person, and time and date conducting each monitoring event

VOC concentrations, measured by a PID or FID, at inlet and outlet of each adsorption chamber with each monitoring event

Vapor extraction flow rate with each monitoring visit

Which wells are vapor-extracted at time of each monitoring event

Whether if a dilution air stream is added to the inlet of adsorption system at time of each monitoring event

Name of the person, and time and date conducting each air sampling event

Analytical laboratory air sample results

Air sample locations and time and date when it is collected

Proper Chain-of-Custody for handling air samples

Vapor extraction flow rate with each sampling event

Name of the person, and time and date conducting carbon replacement

Name of the contractor, and time and date conducting spent carbon removal

Name of the contractor, and time and date conducting wastewater removal

The operator shall submit to the District a report summarizing the first month (or part thereof) of operation and records. Submittal shall be within 90 days of initial operation of this equipment and shall be addressed to: South Coast Air Quality Management District, P.O. Box 4941, Diamond Bar, CA 91765.



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All records shall be kept on the premises for at least two years and shall be made available upon request of executive officer or his representative.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1401, 9-10-2010]

[Devices subject to this condition: C152]

BACKGROUND/HISTORY

Rhodia Inc., Carson facility (Rhodia) regenerates sulfuric acid for the refinery alkylation process and manufactures alum to be used as a flocculating agent in the drinking water purification and wastewater treatment plants. Rhodia currently operates one sulfuric acid plant, one alum (aluminum sulfate) manufacturing system and other equipment that associated with storage and handling of spent sulfuric acid and other raw materials.

Rhodia facility type:

<u>RECLAIM</u>		<u>Title V</u>
SOx	NOx	
Yes	Yes	Yes

Rhodia is a Title V facility. The renewal Title V Permit for the facility was issued on December 14, 2010.

The historic activities at Rhodia's site resulted in the release of VOCs, which have impacted the site's soil and groundwater. The VOCs involved primarily Perchloroethene (PCE), trichloroethene (TCE) and their degradation products. Because Rhodia is located at an industrial area, other compounds including benzene, methylbenzene, carbon tetrachloride, and chloroform have also been reported in the soil vapor, soil, and groundwater samples collected from the site. Under the oversight of the Department of Toxic Substances Control (DTSC), Rhodia has investigated the extent of the releases, evaluated preferred clean-up processes, and received approval to remediate impacted soil via soil vapor extraction (SVE).

On April 4, 2012, Rhodia submitted two applications indicated as follows:

<u>Appl. No.</u>	<u>Type</u>	<u>Previous P/O</u>	<u>Equipment</u>	<u>Fee Sch.</u>	<u>Expedited?</u>
535779	Plan	N/A	N/A	RECLAIM/Title V Rev.	N/A
535781	P/C	N/A	SVE System	Sch. C	No

Appl. No. 535781 – SVE System

Application no. 535781 is submitted in order to install a SVE system for the in-situ treatment of the contaminated soil. The SVE system consists of the following equipment:

- 14 vapor extraction wells;
- Ducts;
- A positive displacement blower;

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- An air/water separator;
- An air-to-air heat exchanger;
- A water pump (to convey condensed water to a storage tank);
- Two tanks holding a minimum of 1,000 pounds of granulated activated carbon (GAC) each;
- A discharge stack;
- Instruments and gauges to monitor the system performance.

The VOC's evaporated from underground soil will be reduced by the carbon adsorbers.

Appl. No. 535779

Application no. 535779 is submitted as a plan for the minor revision of the Title V/Reclaim permit as specified in Rule 301.

PROCESS DESCRIPTION

The proposed soil vapor extraction system will be used to remove halogenated compounds from the soil. There are several vapor extraction wells at the site. The wells will be single phase extraction wells and groundwater will not be extracted from these wells. The water collected from the knockout drum will be collected in drums and shipped offsite for disposal.

The vapor extraction blower (dresser roots 808 with 7.5 HP motor) with 350 scfm max flow, two carbon adsorbers in series with capacity of 1000 pounds of granulated activated carbon (GAC) each, and an exhaust stack (21 ft in height, 4 inch inner diameter) without a rain cap.

This remediation system will be used to treat organic vapors from a network of extraction wells. Vacuum will be applied to the extraction wells with the help of extraction blower, max flow 350 scfm, to create a pressure/concentration gradient resulting in diffusion of contaminant from soil.

Moisture that is carried over along with vapors is removed with a water knockout chamber. Water from the knock out chamber will be collected in drums and shipped offsite for disposal and treatment. The extracted gas is then treated by passing through activated carbon beds before being released into the atmosphere. The equipment will operate 24 hours per day, 365 days/yr.

EMISSION CALCULATIONS**Data:**

Operation: 24 hrs/day, 7 days/week, 52 weeks/yr
Extraction blower flow rate: 250 scfm
Carbon Adsorbers: Two tanks, each 1,000 pounds GAC minimum
Soil Contaminants: Perchloroethylene (PCE) and trichloroethylene (TCE) - major
benzene, methylbenzene, carbon tetrachloride, and chloroform - minor

Assumption:

- Adsorption Efficiency: 99%



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- Adsorbent Capacity: 0.2 lb VOC / lb adsorbent (default value used by Waste Management Team)

VOC Adsorption capacity for each chamber = (0.2 lb VOC / lb) (1,000 lb) = 200 lb

$M_{PCE} = 165.83 \text{ lb/lb-mole}$

$M_{Hexane} = 165.83 \text{ lb/lb-mole}$

The maximum allowed VOC concentration is calculated as follows:

$$C_{Max} = \frac{200 \text{ lb}}{1 \text{ day}} \times \frac{1}{99\%} \times \frac{\text{lb-mole}}{165.83 \text{ lb}} \times \frac{1 \text{ day}}{1.440 \text{ min}} \times \frac{379 \text{ scf}}{\text{lb-mole}} \times \frac{\text{min}}{250 \text{ scf}} \times \frac{1,000,000}{\text{million}} = 1,282.5 \text{ ppm as PCE}$$

$$C_{Max} \text{ as Hexane} = 1,282.5 \text{ ppm} \times \frac{165.83 \text{ lb PCE}}{\text{lb-mole}} \times \frac{\text{lb-mole}}{86.17 \text{ lb hexane}} = 2,468 \text{ ppm as Hexane}$$

The monitoring frequency is calculated as follows:

Monitoring Frequency	Inlet Concentration as Hexane	
	Minimum (ppm)	Maximum (ppm)
1 day	1,234	2,468
2 day	823	1,234
3 day	617	823
4 day	494	617
5 day	411	494
6 day	353	411
7 day	0	353

VOC and Toxic Compound Emissions

Rhodia's soil remediation contractor, Haley & Aldrich, Inc. submitted a Facility Investigation Report dated 12/16/2008. The report indicated that two areas with contaminated soil, SWMU 9a (northern area) and SWMU 10 and 9b (southern area), were required to perform in-situ soil remedial actions. In addition, the report indicated the following testing results:

Soil-Gas sample analytical results for SWMU 9a (northern area)

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Compound	CAS No.	Rule 1401 Listed Compound?	MW g/mole	Highest Soil-Gas Sample Result	
				$\mu\text{g/L}$	ppmV
Tetrachloroethylene (PCE)	127-18-4	Yes	165.83	33,000	4,457.58
Trichloroethylene (TCE)	79-01-6	Yes	131.39	230	39.21
1,1-Dichloroethylene	75-35-4	Yes	96.95	0.5	0.12
Benzene	71-43-2	Yes	78.11	0.3	0.09
Carbon Tetrachloride	56-23-5	Yes	153.83	0.8	0.12
Chloroform	67-66-3	Yes	119.39	1.6	0.30
Cis-1,2-DCE	156-59-2	No	96.95	130	30.04
Trans-1,2-DCE	156-60-5	No	96.95	19	4.39
vinyl chloride	75-01-4	Yes	62.5	0.2	0.07

Soil sample analytical results for SWMU 9A (northern area)

Compound	CAS No.	Rule 1401 Listed Compound?	MW g/mole	Highest Soil Sample Result	
				$\mu\text{g/Kg}$	mol/Kg
PCE	127-18-4	Yes	165.83	77,000	4.64E-04
TCE	79-01-6	Yes	131.39	38	2.89E-07
Cis-1,2-DCE	156-59-2	No	96.95	350	3.61E-06
Trans-1,2-DCE	156-60-5	No	96.95	0.9	9.28E-09
Dichloromethane	75-09-2	Yes	84.93	6.2	7.30E-08

Soil-Gas sample analytical results for SWMU 10 and 9b (southern area)

Compound	CAS No.	Rule 1401 Listed Compound?	MW g/mole	Highest Soil-Gas Sample Result	
				$\mu\text{g/L}$	ppmV
PCE	127-18-4	Yes	165.83	1,800	243.14
TCE	79-01-6	Yes	131.39	9.8	1.67
Benzene	71-43-2	Yes	78.11	1.7	0.49
Chloroform	67-66-3	Yes	119.39	5.6	1.05
Toluene	108-88-3	Yes	92.14	1.1	0.27

Soil sample analytical results for SWMU 10 and 9b (southern area)

Compound	CAS No.	Rule 1401 Listed Compound?	MW g/mole	Highest Soil Sample Result	
				$\mu\text{g/Kg}$	mol/Kg
PCE	127-18-4	Yes	165.83	23,000	1.39E-04
Benzene	71-43-2	Yes	78.11	7.3	9.35E-08
Carbon Tetrachloride	56-23-5	Yes	153.83	41	2.67E-07
Chloroform	67-66-3	Yes	119.39	94	7.87E-07
Dichloromethane	75-09-2	Yes	84.93	6.1	7.18E-08
Toluene	108-88-3	Yes	92.14	41	4.45E-07



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Based on the soil testing results, Rhodia proposed the following maximum VOC/TAC concentrations of exhaust to the atmosphere from the carbon adsorption unit:

Compound	CAS No.	MW g/mole	Carbon Adsorption Unit Inlet Concentration ^a (ppmV)	Carbon Adsorption Unit Outlet Concentration (ppmV)
PCE	127-18-4	165.83	1,283	12.83
TCE	79-01-6	131.39	2,000	20.00
1,1-Dichloroethylene	75-35-4	96.95	2,000	20.00
Benzene	71-43-2	78.11	185	1.85
Carbon Tetrachloride	56-23-5	153.83	185	1.85
Chloroform	67-66-3	119.39	500	5.00
vinyl chloride	75-01-4	62.5	200	2.00
Toluene	108-88-3	92.14	2,000	20.00

Note:

α : The carbon adsorption unit inlet concentration = (outlet concentration) / (1 - 99% eff.)

The VOC/TAC emissions are calculated using the following equation:

(Concentration, ppmV) (250 ft³/min) (60 min/hr) (M_i, Molecular Weight, lb/lb-mole) / (379 ft³/lb-mole)

And the results are indicated as follows:

Compound	CAS No.	MW lb/lb-mole	Carbon Bed Inlet Concentration (ppmV)	Carbon Bed Outlet Concentration (ppmV)	R1 lb/hr	R2 lb/hr
PCE	127-18-4	165.83	1,283	12.83	8.421E+00	8.421E-02
TCE	79-01-6	131.39	2,000	20.00	1.040E+01	1.040E-01
1,1-Dichloroethylene	75-35-4	96.95	2,000	20.00	7.674E+00	7.674E-02
Benzene	71-43-2	78.11	185	1.85	5.719E-01	5.719E-03
Carbon Tetrachloride	56-23-5	153.83	185	1.85	1.126E+00	1.126E-02
Chloroform	67-66-3	119.39	500	5.00	2.363E+00	2.363E-02
vinyl chloride	75-01-4	62.5	200	2.00	4.947E-01	4.947E-03
Toluene	108-88-3	92.14	2,000	20.00	7.293E+00	7.293E-02

EMISSION SUMMARY:

In order to be conservative, the VOC emissions were assumed to be equal to PCE emissions.



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		Hourly (lbs/hr)	Daily (lbs/day)	Annually (lbs/yr)	30 day ave. (lbs/day)	30day NSR (lbs/day)
VOC	R1	8.42	202.09	73,562	202.09	202
	R2	0.08	2.02	736	2.02	2
PCE	R1	8.42E+00	2.02E+02	73,562	2.02E+02	202
	R2	8.42E-02	2.02E+00	736	2.02E+00	2
TCE	R1	1.04E+01	3.40E-01	124	3.40E-01	0
	R2	1.04E-01	3.40E-03	1	3.40E-03	0
1,1-Dichloroethylene	R1	7.67E+00	1.84E+02	67,041	1.84E+02	184
	R2	7.67E-02	1.84E+00	670	1.84E+00	2
Benzene	R1	5.72E-01	1.34E+00	488	1.34E+00	1
	R2	5.72E-03	1.34E-02	5	1.34E-02	0
Carbon Tetrachloride	R1	1.13E+00	2.70E+01	9,840	2.70E+01	27
	R2	1.13E-02	2.70E-01	98	2.70E-01	0
Chloroform	R1	2.36E+00	2.34E+00	852	2.34E+00	2
	R2	2.36E-02	2.34E-02	9	2.34E-02	0
vinyl chloride	R1	4.95E-01	1.19E+01	4,322	1.19E+01	12
	R2	4.95E-03	1.19E-01	43	1.19E-01	0
Toluene	R1	7.29E+00	3.34E+00	1,216	3.34E+00	3
	R2	7.29E-02	3.34E-02	12	3.34E-02	0

Toxic Risk Analysis

Nearest Residential Receptor Distance: 1,500 ft. (457.2 m)
 Nearest Commercial Receptor Distance: 480 ft. (146.3 m)
 Stack height: 21 ft. (6.40 m)

Tier III analysis was used since the stack has a rain cap. Tier III risk analysis was based on the outlet concentrations listed in the above table. Excel program results (attached to this report) show that the MICR values of 4.56×10^{-6} for residential and 6.01×10^{-6} for commercial receptors. HIA and HIC were less than 1. Compliance is expected.

RULES AND REGULATIONS EVALUATION

Rule 212: Standards for Approving Permits – The facility is not located within 1,000 feet of a K-12 school. In addition, the TAC's potential emission increases for this project which will not cause an individual cancer risk of the facility greater than, or equal to, ten (10) in a million. A Public Notice is not required.

Section (c)(3)(A)

The calculation shows that the MICR values of 4.56×10^{-6} for residential and 6.01×10^{-6} for commercial receptors. However, other unknown trace toxic or carcinogenic



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compounds may present in the exhaust due to degradation of the soil contaminants. Rhodia proposes, if any of these trace TACs reported, they shall not exceed 20 ppbv each in the vapor extracted or treated by this equipment. Whenever trace carcinogenic compounds are detected greater than 20 ppbv, Rhodia will submit a screening risk analysis within 30 days to the SCAQMD. The risk from this equipment will be less than eight (8) in a million.

Existing Facility Cancer Risk = 0.11×10^{-6} (Approved in 2006)
MICR value for A/N: 535781 = 8.00×10^{-6}
Total Facility Cancer Risk = 8.11×10^{-6}

Condition No. E448.2 is stipulated to ensure the compliance with this requirement.

Section (g)

Item	Lb/dy daily maximum	Allow limit-lb/dy	Trigger Public notice
NOx	+0	40	No
ROG	+2.02	30	No
CO	+0	220	No
PM10	+0	30	No
SOx	+0	60	No

Rule 401: **Visible Emissions** – Compliance is expected from well maintained and properly operated equipment.

Rule 402: **Public Nuisance** – The potential for public nuisance from the operation of this equipment is minimal. The facility is located in an industrial area.

Rule 1166: **Volatile Organic Compound Emissions From Decontamination of Soil**

Expected to follow requirements to control to emission of VOCs from excavating, grading, handling, and treating VOC contaminated soil as a result of leakage from storage or transfer operations, accidental spillage, or other deposition.

REG XIII: **BACT** – Carbon adsorption unit is considered as BACT for VOC control. BACT is achieved.

Modeling - Modeling for VOC is not required.

Offset – Offsets are not required for this facility since the criteria contaminant emissions will not exceed the limits in table A (rule 1304(d))

	VOC (lb/day)	PM10 (lb/day)	NOX (lb/day)	CO (lb/day)	SOX (lb/day)
Current NSR (PTE)	2	0	N/A	3	N/A
535781 – SVE System	+2.02	+0	N/A	+0	N/A
Total PTE	4.02	0	N/A	3	N/A
Threshold limit	22	22	N/A	159	N/A
Offset required	N/A	0	N/A	0	N/A

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Rule 1401: The carbon adsorption system is considered as T-BACT. Compliance is expected. Excel program results (attached to this report) show that the MICR values of 4.56×10^{-6} for residential and 6.01×10^{-6} for commercial receptors. HIA and HIC were less than 1.

Reg XXX: Title V Permit

Rhodia Inc. facility (Facility ID: 114801) has an active Title V permit. Based on the above evaluation, the proposed scrubber will not cause any emission increases. Therefore, application no. 535779 is considered "De Minimis Significant Permit Revision" of Title V Facility Permit and it is subject to a 45-day EPA review prior to final revision of the Title V Facility Permit (Application No. 535779).

CONCLUSION AND RECOMMENDATIONS

Based on my evaluation, the subject equipment will operate in compliance with all applicable District Rules and Regulations. A Permit to Construct/Operate is recommended.