

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <i>ENGINEERING &amp; COMPLIANCE</i>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	<b>PAGES</b> 51	<b>PAGE</b> 1
	<b>APPL. NOS.</b> 405760, 405761, 405762, 405763 405764, 505399	<b>DATE</b> 10/10/2012
	<b>PROCESSED BY</b> Belinda C. Wan	<b>CHECKED BY</b>

**PERMITS TO OPERATE**  
**CHANGE OF CONDITIONS**

**COMPANY NAME** CHEVRON PRODUCTS COMPANY  
EL SEGUNDO REFINERY

**MAILING ADDRESS** P. O. BOX 97  
EL SEGUNDO, CA 90245

**EQUIPMENT LOCATION** 324 W. EL SEGUNDO BLVD.  
EL SEGUNDO, CA 90245

**FACILITY ID** UNITIZED ID 800030 (CYCLE 1)

**CONTACT PERSON** PETER G. ALLEN  
(310) 615-4182

**PROPOSED CHANGES TO PERMITS:**

Proposed deletions are shown in ~~strikeouts~~. Proposed additions are in **bold and underlined**.

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS  
(Please note that permits for the following equipment under Process 15, Systems 1 - 5, will remain in Section D of the facility permit.)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
<b>Process 15: OIL/WATER SEPARATION</b>					
<b>System 1: NO. 2 SEPARATOR AND APC</b>					S13.7
OIL WATER SEPARATOR, SEPARATOR BOX, FIXED COVER, WIDTH: 129 FT 4 IN; DEPTH: 16 FT; LENGTH: 202 FT  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	D1220	C1820 C1822		<b>BENZENE: (10) 40 CFR 61 Subpart FF #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176.9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF,</b>	H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
				12-4-2003]	
<b>DRAIN SYSTEM COMPONENT</b>  A/N: 405760 <b>Permit to Construct Issued for A/N 318494</b> 08/22/96	D3712			<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	H23.4
<b>JUNCTION BOX, 7 4 ENCLOSED ENTRANCE FLOW JUNCTION BOXES</b>  A/N: 405760 <b>Permit to Construct Issued for A/N 318494</b> 08/22/96	D1221	<u>C1820</u>		<b>BENZENE: (10) 40 CFR 61 Subpart FF #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
<u><b>JUNCTION BOX, 2 ENCLOSED ENTRANCE FLOW JUNCTION BOXES</b></u>  A/N: 405760 <b>Permit to Construct Issued for A/N 318494</b> 08/22/96	<u>DXXXX</u>	<u>C1822</u>		<u><b>BENZENE: (10) 40 CFR 61 Subpart FF #2, 12-4-2003;</b></u> <u><b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b></u> <u><b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996];</b></u> <u><b>VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b></u>	<u>H23.4</u>

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
<b><u>JUNCTION BOX, 5 ENCLOSED ENTRANCE FLOW JUNCTION BOXES</u></b>  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	<b>DYYYY</b>			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
SUMP, T-12, SKIMMED OIL, FIXED COVER, WIDTH: 9 FT; DEPTH: 12 FT 6 IN; LENGTH: 9 FT  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	D1223			<b>BENZENE: (10) 40 CFR 61 Subpart FF #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
PIT, WEMCO FEED, T-200, FIXED COVER, WIDTH: 17 FT 8 IN; DEPTH: 12 FT 8 IN; LENGTH: 18 FT 9 IN  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	D1224			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
AIR FLOTATION UNIT, WEMCO, T-210, WIDTH: 12 FT; HEIGHT: 7 FT 11 IN; LENGTH: 64 FT 5 IN  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	D1225			<b>BENZENE: (10) 40 CFR 61 Subpart FF #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500</b>	H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
				PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	
CLARIFIER, T-220, FIXED ROOF, 3/4 HP MOTOR, HEIGHT: 13 FT 6 IN; DIAMETER: 24 FT  A/N: 405760 <del>Permit to Construct Issued for A/N 318494</del> 08/22/96	D1228			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
PIT, CLARIFIER SLUDGE, T-230, FIXED ROOF, WIDTH: 21 FT; HEIGHT: 8 FT 3IN; LENGTH: 21 FT  A/N: 405760 <del>Permit to Construct Issued for A/N 318494</del> 08/22/96	D1229			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
STORAGE TANK, FIXED ROOF, T-240, POLYMER, POLYETHYLENE, <del>2000</del> <b>GALS.</b> , <del>1850</del> <b>GALS.</b> , DIAMETER: 6 FT 1 IN; HEIGHT: <del>9 FT 11 IN</del> <b>9 FT. 6 IN</b>  A/N: 405760 <del>Permit to Construct Issued for A/N 318494</del> 08/22/96	D1230				

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
OIL WATER SEPARATOR, HIGH FLOW BYPASS BOX, T-250, FIXED COVER, WIDTH: 6 FT; DEPTH: 15 FT; LENGTH: 10 FT  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	D1231			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
CARBON ADSORBER, EFS-1, EACH OF TWO UNITS IN SERIES, 2000 LBS  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	C1820	D1220			D90.28 E128.1 E153.4
CARBON ADSORBER, EFS-2, EACH OF TWO UNITS IN SERIES, 2000 LBS  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	C1822	D1220 DXXXX			D90.33 E128.1 E153.4
FUGITIVE EMISSIONS, MISCELLANEOUS  A/N: 405760 Permit to Construct Issued for A/N 318494 08/22/96	D3660				H23.3
<b>Process 15: OIL/WATER SEPARATION</b>					
<b>System 2: NO. 3 SEPARATOR AND APC</b>					S13.7
OIL WATER SEPARATOR, FIXED COVER, WIDTH: 12 FT 4 IN; DEPTH: 5 FT 8 IN; LENGTH: 103 FT 2 IN  A/N: 405761 A/N 401516	D1232	C1837		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E71.2 H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
SUMP, T-30, FIXED COVER, WIDTH: 8 FT; DEPTH: 12 FT; LENGTH: 10 FT  A/N: 405761 <del>A/N 401516</del>	D1233	<u>C1837</u>		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC: 500 PPMV (5) [RULE 1176, 9-13-1996]; VOC: 500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
JUNCTION BOX, ENTRANCE FLOW  A/N: 405761 <del>A/N 401516</del>	D1234			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC: 500 PPMV (5) [RULE 1176, 9-13-1996]; VOC: 500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
CARBON ADSORBER, EFS-3, EACH OF TWO UNITS IN SERIES, 2000 LBS  A/N: 405761 <del>A/N 401516</del>	C1837	D1232 <u>D1233</u>			D90.32 E128.1 E153.4
FUGITIVE EMISSIONS, MISCELLANEOUS  A/N: 405761 <del>A/N 401516</del>	D3661				H23.3
DRAIN SYSTEM COMPONENT  A/N: 405761 <del>A/N 401516</del>	D3722			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC: 500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions

**Process 15: OIL/WATER SEPARATION**

**System 3: NO. 4 SEPARATOR AND APC**

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
<b>Process 15: OIL/WATER SEPARATION</b>					
<b>System 3: NO. 4 SEPARATOR AND APC</b>					S13.7
<b>OIL WATER SEPARATOR, SEPARATOR BOX, FIXED COVER, WIDTH: 50 FT 10 IN; DEPTH: 11 FT; LENGTH: 85 FT 10 IN</b>  A/N: 405762 <del>A/N 228634</del>	D1235	C1839		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	E71.2 H23.4
<b>PIT, T-401, SKIMMED OIL, WITH FIXED STEEL COVER</b>  A/N: 405762 <del>A/N 228634</del>	D1236			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996]VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
<b><u>OIL WATER SEPARATOR, 6 ENCLOSED JUNCTION BOXES</u></b>  A/N: 405762 <del>A/N 228634</del>	<u>DZZZZ</u>	<u>C1839</u>		<b><u>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</u></b> <b><u>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2004];</u></b> <b><u>VOC:500 PPMV (5) [RULE 1176, 9-13-1996];</u></b> <b><u>VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</u></b>	<u>H23.4</u>

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CARBON ADSORBER. EFS-5, EACH OF TWO UNITS IN SERIES, 2000 LBS  A/N: 405762 A/N 228634	C1839	D1235 <del>D1235</del> D1252			D90.32 E128.1 E153.4
FUGITIVE EMISSIONS, MISCELLANEOUS  A/N: 405762 A/N 228634	D3662				H23.3
DRAIN SYSTEM COMPONENT  A/N: 405762 A/N 228634	D3723			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003; HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]; VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
<b>Process 15: OIL/WATER SEPARATION</b>					
<b>System 4: EFFLUENT TREATING PLANT</b>					S13.7
TANK, T-102, FLOAT/SLUDGE, DOUBLE DECK FLOATING ROOF, MECHANICAL SHOE PRIMARY SEAL AND RIM-MOUNTED SECONDARY WIPER SEAL, 130000 GALS.; DIAMETER: 31 FT; HEIGHT: 22FT  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D1237			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003; HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]</b>	H23.1

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
SUMP, T-108, RECOVERED OIL/WATER, FIXED COVER, 1300 GALS  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> 07/15/97	D1238	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E57.2 H23.4
TANK, RAPID MIX, T-200, FIXED ROOF, WITH MIXER (K-200), 3600 GALS; DIAMETER: 8 FT 6 IN; HEIGHT: 11 FT 6 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> 07/15/97	D1239	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E57.2 H23.4
TANK, FLOCCULATION, T-201, FIXED ROOF, WITH AGITATOR, 36000 GALS; DIAMETER: 26 FT; HEIGHT: 10 FT 6 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> 07/15/97	D1240	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E57.2 H23.4
TANK, FLOTATION, T-202, FIXED ROOF, WITH SKIMMER AND SLUDGE RAKE (K-202), 150000 GALS; DIAMETER: 53 FT; HEIGHT: 10 FT 3 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del>	D1241	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500	E57.2 H23.4

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07/15/97				PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	
TANK, SURGE, T-203, DAF FLOAT AND SLUDGE, FIXED ROOF, 4000 GALS; DIAMETER: 8 FT; HEIGHT: 11 FT 9 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> 07/15/97	D1242	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E57.2 H23.4
AIR FLOTATION UNIT, INDUCED, NO. T-270, FIXED COVER, 90000 GALS; WIDTH: 12 FT; HEIGHT: 15 FT ; LENGTH: 60FT  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> 07/15/97	D1243	C1841		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
AIR FLOTATION UNIT, INDUCED, NO. T-370, FIXED COVER, 90000 GALS; WIDTH: 12 FT; HEIGHT: 15 FT ; LENGTH: 60FT  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> 07/15/97	D1244	C1842		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
TANK, FLOAT CLARIFIER, T-280, FIXED ROOF, <del>VENTED TO</del> ACTIVATED CARBON VENT STACK, WITH SKIMMER, HEIGHT: 12 FT; DIAMETER: 40 FT  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D1245			<b>BENZENE: (10) 40            CFR 61 Subpart            FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR            63 Subpart CC, #4,            6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13- 1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
SUMP, FLOAT CLARIFIER, T-281, FIXED COVER, ENCLOSED, <b>WITH</b> <b>LOOP SEAL</b> , WIDTH: 8 FT; DEPTH: 8 FT; LENGTH: 15 FT 6 IN  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D1246			<b>BENZENE: (10) 40            CFR 61 Subpart            FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR            63 Subpart CC, #4,            6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13- 1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
DRAIN SYSTEM COMPONENT  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D3724			<b>BENZENE: (10) 40            CFR 61 Subpart            FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR            63 Subpart CC, #4,            6-23-2003];</b> VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12- 4-2003]	H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
SUMP, T-282, OILY SLUDGE, FIXED COVER, ENCLOSED, <b>WITH LOOP SEAL</b> , WIDTH: 15 FT; DEPTH: 10 FT; LENGTH: 14 FT  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D1247			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
TANK, RAPID MIX, T-300, FIXED ROOF, WITH MIXER, HEIGHT: 11 FT 6 IN; DIAMETER: 8 FT 6 IN  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D1248	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E57.2 E57.4 H23.4
TANK, FLOCCULATION, T-301, FIXED ROOF, WITH PADDLE AGITATOR (K-301), 36000 GALS; DIAMETER: 26 FT; HEIGHT: 10 FT 6 IN  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D1249	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	E57.2 E57.4 H23.4
TANK, FLOTATION, T-302, FIXED ROOF, WITH SKIMMER AND SLUDGE RAKE, 150000 GALS.; DIAMETER: 53 FT; HEIGHT: 10 FT 3 IN  A/N: 405763	D1250	C2159 C3167 C3168		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5)	E57.2 E57.4 H23.4

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<del>Permit to Construct Issued for A/N 324869</del> <del>07/15/97</del>				[RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	
TANK, T-303, FLOAT/SLUDGE, FIXED ROOF, 1300 GALS; DIAMETER: 8 FT; HEIGHT: 4 FT  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> <del>07/15/97</del>	D1251	C3167 C3168 C2159		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	<u>E57.2</u> <u>E57.4</u> H23.4
SUMP, NO. 4 SEPARATOR, T-400, FIXED COVER  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> <del>07/15/97</del>	D1252	<u>C1839</u>		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
TANK, T-500, AERATION BASIN, FIXED COVER, 1.5 E+06 GALS; WIDTH: 106 FT 6 IN; DEPTH: 20 FT; LENGTH: 160 FT  A/N: 405763 <del>Permit to Construct Issued for A/N 324869</del> <del>07/15/97</del>	D1253	C2158 C3169 C3170		<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996]	E57.3 H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
TANK, AERATION BASIN, T-600, WITH ALUMINUM DOME COVER, 900000 GALS; WIDTH: 80 FT; DEPTH: 20 FT; LENGTH: 128 FT 6 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1254	C2158		<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	E54.3
TANK, NO. T-601, OPEN TOP, 450000 GALS; DIAMETER: 80 FT; HEIGHT: 12 FT  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1255			<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	
TANK, CLARIFIER SKIM, NO. T-602, OPEN TOP, 490 GALS; DIAMETER: 3 FT; HEIGHT: 9 FT 6 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1256			<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	
TANK, AERATION BASIN, T-700, WITH ALUMINUM DOME COVER, 900000 GALS; WIDTH: 80 FT; HEIGHT: 20 FT; LENGTH: 128 FT 6 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1257	C2158		<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	E54.3
TANK, CLARIFIER, T-701, OPEN TOP, 450000 GALS; DIAMETER: 80 FT; HEIGHT: 12 FT  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1258			<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
TANK, CLARIFIER SKIM, T-702, OPEN TOP, 490 GALS; DIAMETER: 3 FT; HEIGHT: 9 FT 6IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1259			<b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003]</b>	
STORAGE TANK, FIXED ROOF, T-290, POLYMER, POLYETHYLENE, 1850 GALS; DIAMETER: 6 FT 1 IN; HEIGHT: <del>9 FT 11 IN</del> <b>9 FT 6 IN</b>  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D3157				
TANK, REFINERY FOREBAY, WITH 12 COMPARTMENTS, CONCRETE COVERED, WIDTH: 49 FT 2 IN ; DEPTH: 11 FT 8 IN; LENGTH: 249 FT 8 IN  A/N: 405763 <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	D1260	C3218		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4
<u><b>NO. 2 FOREBAY, WIDTH: 12 FT; LENGTH: FROM 23 FT TO 27 FT; DEPTH: 19 FT</b></u>  <u>A/N: 405763</u> <del>Permit to Construct Issued for A/N 324869 07/15/97</del>	<u>DAAAA</u>	<u>CBBBB</u>		<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> VOC:500 PPMV (5) [RULE 1176, 9-13-1996] ; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]	H23.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
<u><b>CARBON ADSORBER, EFS-10, EACH OF TWO UNITS IN SERIES, 2000 LBS</b></u>  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	CBBBB	DAAAA			<u>D90.32</u> <u>E128.1</u> <u>E153.4</u>
CARBON ADSORBER, EFS-11, EACH OF TWO UNITS IN SERIES, 2000 LBS  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	C3218	D1260			D90.28 E128.1 <u>E153.4</u>
FUGITIVE EMISSIONS, MISCELLANEOUS  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D3663				H23.3
PIT, T-260, DIVERSION PUMP WET PIT, FIXED COVER  A/N: 405763 Permit to Construct Issued for A/N 324869 07/15/97	D3834			<b>BENZENE: (10) 40 CFR 61 Subpart FF, #2, 12-4-2003;</b> <b>HAP: (10) [40CFR 63 Subpart CC, #4, 6-23-2003];</b> <b>VOC:500 PPMV (5) [RULE 1176, 9-13-1996]; VOC:500 PPMV (8) [40CFR 61 SUBPART FF, 12-4-2003]</b>	H23.4
<b>Process 15: OIL/WATER SEPARATION</b>					
<b>System 5: EFFLUENT TREATING PLANT APC</b>					S13.7
OXIDIZER, THERMAL, REGENERATIVE, F-707, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 3.4 MMBTU/HR, WITH  A/N: 405764 Permit to Construct Issued for A/N 329719	C2158	D1253 D1254 D1257 C2161 D2162	NOX: PROCESS UNIT; SOX: MAJOR SOURCE	CO:2000 PPMV, (5) [RULE 407, 4-2-1982]; NOX: 150 PPMV (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]	A63.20 A72.1 A72.3 B61.10 C8.4 D12.8 D28.10 D90.31

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
07/15/97 BURNER, NATURAL GAS, REFINERY GAS, NORTH AMERICA, WITH LOW NOX BURNER, 3.4 MMBTU/HR				PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7- 1981]; SO2: 20 PPMV (8) {40 CFR 60 SUBPART J, 6- 24-2008}	D90.39 E73.3 E223.1 H23.44
SCRUBBER, CAUSTIC, C-717A, HEIGHT: 25 FT; DIAMETER: 5 FT  A/N: 405764 Permit to Construct Issued for A/N 329719 07/15/97	C2159	D1238 D1239 D1240 D1241 D1242 D1248 D1249 D1250 <u>D1251</u> C2160			C8.1 C8.2 E73.4
SCRUBBER, CAUSTIC, C-717B, HEIGHT: 25 FT; DIAMETER: 5 FT  A/N: 405764 Permit to Construct Issued for A/N 329719 07/15/97	C2160	C2159 C2161			C8.1 C8.2 E73.4
SCRUBBER, WATER,, C-718, HEIGHT: 27 FT; DIAMETER: 5 FT  A/N: 405764 Permit to Construct Issued for A/N 329719 07/15/97	C2161	C2158 C2160			D12.9 E73.4
TANK, T-719, SPENT CAUSTIC, FIXED ROOF, 3500 GALS; DIAMETER: 8 FT; HEIGHT: 10 FT  A/N: 405764 Permit to Construct Issued for A/N 329719 07/15/97	D2162	C2158 C3169 C3170			E57.3

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
KNOCK OUT POT, V-709, HEIGHT:14 FT; DIAMETER: 11 FT  A/N: 405764 <del>Permit to Construct Issued for A/N 329719</del> 07/15/97	D2163			<b>HAP:</b> (10) [40CFR 63 Subpart CC, #4, 6-23-2003]; <b>VOC:</b> 500 PPMV (5) [RULE 1176, 9-13-1996]	H23.4
CARBON ADSORBER, V-204, 20000 LBS  A/N: 405764 <del>Permit to Construct Issued for A/N 329719</del> 07/15/97	C3167	D1238 D1239 D1240 D1241 D1242 D1248 D1249 D1250 <u>D1251</u>			D90.11 E128.1 E153.4
CARBON ADSORBER, V-304, 20000 LBS  A/N: 405764 <del>Permit to Construct Issued for A/N 329719</del> 07/15/97	C3168	D1238 D1239 D1240 D1241 D1242 D1248 D1249 D1250 <u>D1251</u>			D90.11 E128.1 E153.4
CARBON ADSORBER, V-512A, 20000 LBS  A/N: 405764 <del>Permit to Construct Issued for A/N 329719</del> 07/15/97	C3169	D1253 D2162			D90.11 E128.1 E153.4
CARBON ADSORBER, V-512B, 20000 LBS  A/N: 405764 <del>Permit to Construct Issued for A/N 329719</del> 07/15/97	C3170	D1253 D2162			D90.11 E128.1 E153.4

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
CARBON ADSORBER, V-512B, 20000 LBS  A/N: 405764 <del>Permit to Construct Issued for A/N 329719</del> 07/15/97	C3170	D1253 D2162			D90.11 E128.1 E153.4

(10) Please refer to Section J of the facility permit for NESHAP/MACT requirements.

**\*\*Please refer to Sections F and G of the facility permit for the monitoring, recordkeeping, and reporting requirements.**

**CONDITIONS:**

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

**PROCESS CONDITIONS**

None

**SYSTEM CONDITIONS**

S13.7 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40 CFR 61	FF

**[40 CFR 61 Subpart FF, 12-4-2003]**

[Systems subject to this condition: Process 15, System 1, 2, 3, 4, 5]

**DEVICE CONDITIONS**

**A. Emission Limits**

A63.20 The operator shall limit emissions from this equipment as follows:

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<u>Contaminant</u>	<u>Emission Limit</u>
CO	Less than or equal to 176 LBS PER DAY
PM10	Less than or equal to 18.2 LBS PER DAY
ROG	Less than or equal to 37.5 LBS PER DAY

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition: C2158]

A72.1 The operator shall maintain this equipment to achieve a minimum overall control efficiency of 98 percent for ROG during the normal operation of the equipment it vents.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition: C2158]

A72.3 The operator shall maintain this equipment to achieve a minimum destruction efficiency of 95 percent for ~~ROG~~ VOC during the normal operation of the equipment it vents.

**[RULE 1176, 9-13-1996; 40 CFR 63 Subpart CC, 12-19-2005]**

[Devices subject to this condition: C2158]

**B. Material/Fuel Type Limits**

B61.10 The operator shall not use fuel gas, except uncombined natural gas, containing the following specified compounds:

<u>Compound</u>	<u>ppm by volume</u>
H2S greater than	160

The H2S concentration limit shall be based on a rolling 3-hour averaging period.

**[40 CFR 60 Subpart J, 6-24-2008; CONSENT DECREE CIVIL NO. C 03-04650 CRB, 6-27-2005]**

[Devices subject to this condition: D20, D453, D502, D504, C2158, C3493]

**C. Throughput/Operating Limitation**

C8.1 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 90 gpm.

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

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

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

[Devices subject to this condition: C2159, C2160]

- C8.2 The operator shall use this equipment in such a manner that the pH being monitored, as indicated below, is not less than 10 of the pH scale.

The operator shall monitor the pH of the recirculating caustic solution once a day.

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

[Devices subject to this condition: C2159, C2160]

- C8.4 The operator shall use this equipment in such a manner that the temperature being monitored, as indicated below, is not less than 1400 Deg F.

To comply with this condition, the operator shall install and maintain a(n) temperature reading device to accurately indicate the temperature in the firebox or in the duct work immediately downstream of the firebox. The temperature reading device shall be accurate to within plus or minus 10 percent, shall be calibrated once every 12 months, and shall be equipped with a recorder.

**[RULE 1176, 9-13-1996; RULE 1303(a)(1)-BACT, 5-10-1996, RULE 1303(b)(2)-Offset, 5-10-1996; RULE 3004 (a) (4)- Periodic Monitoring, 12-12-1997]**

[Devices subject to this condition: C2158]

#### **D. Monitoring/Testing Requirements**

- D12.8 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate at the vapor feed line to the thermal oxidizer.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: C2158]

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D12.9 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate across the scrubber (water rate).

[**RULE 1303(a)(1)-BACT, 5-10-1996**]

[Devices subject to this condition: C2161]

D28.10 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted to determine the VOC control efficiency of the thermal oxidizer.

The test shall be conducted at least once every three years.

[**RULE 1176, 9-13-1996; RULE 1303(a)(1)-BACT, 5-10-1996, RULE 1303(b)(2)-Offsets, 5-10-1996; RULE 3004 (a) (4)- Periodic Monitoring, 12-12-1997**]

[Devices subject to this condition: C2158]

D90.11 The operator shall periodically monitor the VOC concentration at the outlet of the final carbon canister according to the following specifications:

The operator shall utilize EPA Method 21 to monitor once every day that the carbon adsorber is in use.

The operator shall calibrate the instrument used to monitor the parameter in ppmv methane.

Alternately, the operator may use the District Grab Sample Method as specified in Rule 1176, to measure the VOC concentration.

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 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40 CFR 61 Subpart FF, 12-4-2003**]

[Devices subject to this condition:, C3167, C3168, C3169, C3170]

D90.28 The operator shall periodically monitor the VOC concentration at the outlet of the final carbon canister according to the following specifications:

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The operator shall monitor once every week when in use

The operator shall utilize EPA Method 21.

The operator shall calibrate the instrument used to monitor the parameter in ppmv methane.

Alternately, the operator may use the District Grab Sample Method as specified in Rule 1176, to measure the VOC concentration.

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

**[RULE 1176, 9-13-1996; RULE 3004 (a) (4)-Periodic Monitoring, 12-12-1997; 40 CFR 61 Subpart FF, 12-4-2003]]**

[Devices subject to this condition: C1820, C1841, C1842]

D90.31 The operator shall continuously monitor the H2S concentration in fuel gases before being burned in this device according to the following specifications:

The operator shall use Gas Chromatograph meeting the requirements of 40CFR 60 Subpart J to monitor the parameter.

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

The operator may monitor the H2S concentration at a single location for fuel combustion devices, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned in this device.

**[40 CFR 60 Subpart J, 6-24-2008; CONSENT DECREE CIVIL NO. C 03-04650 CRB, 6-27-2005]**

[Devices subject to this condition: D20, D453, D502, D504, C2158]

D90.32 The operator shall periodically monitor the VOC concentration at the outlet of each the final carbon canister according to the following specifications:

The operator shall monitor once every two weeks using EPA Method 21.

The operator shall calibrate the instrument used to monitor the parameter in ppmv methane.

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Alternately, the operator may use the District Grab Sample Method as specified in Rule 1176, to measure the VOC concentration.

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 1176, 9-13-1996; RULE 3004 (a) (4)-Periodic Monitoring, 12-12-1997; 40 CFR 61 Subpart FF, 12-4-2003]~~**

Devices subject to this condition: C1837, C1839, **CBBBB**]

D90.33 The operator shall periodically monitor the VOC concentration at the outlet of the final carbon canister according to the following specifications:

The operator monitor once every four days using EPA Method 21.

The operator shall calibrate the instrument used to monitor the parameter in ppmv methane.

Alternately, the operator may use the District Grab Sample Method as specified in Rule 1176, to measure the VOC concentration.

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 1176, 9-13-1996; RULE 3004 (a) (4)-Periodic Monitoring, 12-12-1997; 40 CFR 61 Subpart FF, 12-4-2003]~~**

Devices subject to this condition: C1822]

D90.39 The operator shall periodically monitor the H2S concentration in fuel gases before being burned in this device according to the following specifications:

The Alternative Monitoring Plan (AMP) approved by the United States Environmental Protection Agency (USEPA) on September 1, 2005 for the periodic monitoring and reporting of H2S concentration for the waste gas streams from the Effluent Treatment Plant to the thermal oxidizer.

In addition, the operator shall also comply with all other requirements of the AMP issued by the USEPA on September 1, 2005 for this thermal oxidizer.

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

**[40 CFR 60 Subpart A, 5-16-2007; 40 CFR 60 Subpart J, 6-24-2008; CONSENT DECREE CIVIL NO. C 03-04650 CRB, 6-27-2005]**

[Devices subject to this condition: C2158]

**E. Equipment Operation/Construction Requirements**

E54.3 The operator is not required to vent this equipment to the following equipment if all of the requirements listed below are met:

Device ID C2158 [OXIDIZER, REGENERATIVE, F-707]

Requirement number 1: whenever the RTO is shutdown during breakdown or maintenance

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: D1254, D1257]

E57.2 The operator shall vent this equipment to the carbon canisters, devices C3167 or C3168 whenever the RTO and/or scrubbers are shutdown during breakdown or maintenance.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: D1238, D1239, D1240, D1241, D1242, D1248, D1249, D1250, D1251]

E57.3 The operator shall vent this equipment to the carbon canisters, devices C3169 or C3170 whenever the RTO is shutdown during breakdown or maintenance.

**[RULE 1303(a)(1)-BACT, 5-10-1996, RULE 1303(b)(2)-Offset, 5-10-1996]**

[Devices subject to this condition: D1253, D2162]

E57.4 The operator shall vent this equipment to the Scrubbers and RTO whenever it is operated as a DAF unit. Rule 1176, 40 CFR 61 Subpart FF, and 40 CFR 63 Subpart CC shall only apply when the equipment is operated as a DAF unit.

**[RULE 1176, 9-13-1996; 40 CFR 61 Subpart FF, 12-4-2003, 40 CFR 63 Subpart CC, 12-19-2005]**

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[Devices subject to this condition: D1248, D1249, D1250, **D1251**]

E71.2 The operator shall only operate this equipment if all sour water is treated to minimize sulfide content prior to discharging into the oil water separator.

**[RULE 1303(b)(2)-Offset, 5-10-1996]**

Devices subject to this condition: D1232, D1235]

E73.3 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use this air pollution control equipment if all of the following requirement(s) are met:

During maintenance or breakdown periods

When the carbon adsorber systems, devices C3167 or C3168 and C3169 or C3170, are in full operation.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: C2158]

E73.4 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use this air pollution control equipment if all of the following requirement(s) are met:

During maintenance or breakdown periods

When the carbon adsorber systems, devices C3167 or C3168 is in full operation.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: C2159, C2160, C2161]

E73.5 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use this scrubber if all of the following requirement(s) are met:

During maintenance and breakdown periods at which time the vapors extracted from water treatment devices D1239, D1240, D1254 and D1257 shall be routed to the carbon adsorber systems, C3167/C3168 or C3169/C3170, which shall be in operation.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

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[Devices subject to this condition: C2159]

E128.1 The operator shall keep all spent carbon in a tightly covered container which shall remain closed except when it is being transferred into or out of the container.

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

[Devices subject to this condition: C1820, C1822, C1839, C2090, C3167, C3168, C3169, C3170, C3218, C3509, **CBBBB**]

E153.4 The operator shall change over the carbon in the adsorber whenever breakthrough occurs.

For the purpose of this condition, breakthrough occurs when the EPA Method 21 measurement or the District Grab Sample Method analytical result indicates a VOC concentration of 500 ppmv at the outlet of the carbon canister.

[**RULE 1176, 9-13-1996; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR 61 Subpart FF, 12-4-2003**]

[Devices subject to this condition: C1820, C1822, C1837, C1839, C3167, C3168, C3169, C3170, C3218, **CBBBB**]

**E193.xx The operator shall operate and maintain this equipment according to the following specifications:**

**Chevron shall provide notifications to the South Coast Air Quality Management District (AQMD) via 1-800 CUT-SMOG when the RTO is taken out of service:**

**No less than 24 hours in advance of planned maintenance which causes F-707 to be taken out of service and T-600 and T-700 to be vented to atmosphere as described in Chevron's Permit to Operate.**

**As soon as practical, but no later than 3 hours after F-707 is shut down for a malfunction or emergency situation which causes T-600 and T-700 to be vented to the atmosphere as described in Chevron's Permit to Operate.**

**Chevron shall operate F-707 on natural gas during periods of planned maintenance that interrupts the delivery of fuel gas to F-707 which otherwise would require F-707 to be shut down.**

**When feasible, Chevron shall operate F-707 on natural gas when an unexpected interruption of fuel gas to F707 occurs which would require F-707 to be shut down.**

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**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: C2158]

E223.1 The operator shall install and maintain an interlock control to stop the operation of this equipment if the flame is out.

**[RULE 1303(a)(1)-BACT, 5-10-1996]**

[Devices subject to this condition: C2158]

#### **H. Applicable Rules**

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

Contaminant	Rule	Rule/Subpart
Benzene	40 CFR 61 Subpart	FF

**[40 CFR 61 Subpart FF, 12-4-2003]**

[Devices subject to this condition: D1237, D1364, D1380, D1381, D2151, D3141, D3144]

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

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1173

**[RULE 1173, 5-13-1994, RULE 1173, 6-1-2007]**

[Devices subject to this condition: D3576, D3588, D3610, D3631, D3635, D3640, D3642, D3644, D3645, D3646, D3654, D3655, D3657, D3659, D3660, D3663, D3671, D3672, D3673, D3681, D3682, D3687, D3688, D3691, D3694, D4086, D4087, D4088]

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

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1176

**[RULE 1176, 9-13-1996]**

[Devices subject to this condition: D1220, D1221, D1223, D1224, D1225, D1228, D1229, D1231, D1238, D1239, D1240, D1241, D1242, D1243, D1244, D1245, D1246, D1247, D1248, D1249, D1250, D1251, D1252, D1253, D1260, D2163, D3712, D3724, D3834,

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**DXXXX, DYYYY, DZZZZ, DAAAA]**

H23.44 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
H2S	40 CFR 60 Subpart	J

**[40 CFR 60 Subpart J, 6-24-2008; CONSENT DECREE CIVIL NO. C 03-04650 CRB, 6-27-2005]**

[Devices subject to this condition: D20, D453, D502, D504, C1746, C2158, C3012, C3493]

**K. Recordkeeping/Reporting**

None

**COMPLIANCE RECORD REVIEW:**

A check with the AQMD Compliance Database shows that the facility has no open cases of violation covering these permit units. There were two violations that happened on July 28, 2010 to the Oil/Water Separators. NOV P56609 was issued to Oil/Water Separator No. 3 for leaking in excess of 18000 ppm VOC while NOV P56610 was issued for Aeration Basins T-600 and T-700 for failure to comply with condition E54.3. Violation P56610 was voided due to the permit condition which allows the facility to vent the gases to the atmosphere during breakdown and maintenance period while violation P56609 has already been resolved on 8-3-2011. Thus, with these modifications and the absence of open cases, the No. 2 Oil/Water Separator and APC identified as System 1, the Effluent Treating Plant (ETP) identified as System 4 and its Air Pollution Control system identified as System 5 of Process 15 for Oil/Water Separation are operating in compliance with District rules and regulations.

Changing the conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant is not likely to cause public nuisance and violation of District rules and regulations. Besides the use of organic vapor analyzer, Rule 1176 allows the use of grab samples that discount methane gas. Grab samples should be allowed in the permit condition to avoid premature changeout of carbon.

**BACKGROUND:**

Chevron Products Company with Facility ID 800030 operates a petroleum refinery at 324 W. El Segundo Boulevard, El Segundo, California. Facility ID 800030 is both NOx and SOx RECLAIM Cycle II facility that also belongs to the Title V program.

According to the New Source Review database, Chevron Products Company with Facility ID 800030 has a potential to emit 9050 lb per day of NOx, 18251 lb per day of CO, 892 lb per day of PM<sub>10</sub>, 4766 lb per day of SOx and 3852 lb per day of ROG. Facility ID 800030 belongs to the Title V program. Chevron Products

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Company with Facility ID 800030 reported more than 550 tons per year of VOC in 2010 which is more than the emission threshold levels of 8 tons per year of VOC specified by Table 1 of Rule 30001. Initial Title V permit for this facility was issued effective 10/12/09.

Chevron Products Company with Facility ID 800030 operates Process 15 for Oil/Water Separation consisting of three oil water separators, effluent treating plant and effluent treating plant APC. Emission sources from the operation of the three oil water separators and the effluent treating plant are vented to an air pollution control equipment in the form of carbon adsorbers, caustic scrubbers and regenerative thermal oxidizer.

Chevron Products Company submitted application nos. 405760 – 405764 on August 20, 2002 initially to change the conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant. All changes requested under these applications were made during the Title V process and EPA review including adding conditions and rule tagging. Besides the use of organic vapor analyzer, Rule 1176 allows the use of grab samples that discount methane gas. Grab samples should be allowed in the permit condition to avoid premature changeout of carbon. These applications form the basis to change the conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant although the conditions were already included in the initial Title V permit issued on October 12, 2009. However, application no. 405763 was also submitted to modify Effluent Treating plant by the addition of carbon adsorber EFS-10 which was initially indicated in A/N 362226 which was submitted in October, 1999. The carbon adsorber was installed to control emissions from the No. 2 forebay which was already an existing piece of equipment at the refinery. However, it was previously treated as integral to the West Pit (D3834). Chevron prefers to treat the No. 2 forebay as a separate device. There were also minor equipment updates for equipment already installed and operating but missing in the facility permit for the three oil water separators filed under application nos. 405760 -405762.

**P15/S1: No. 2 Oil Water Separator A/N 405760**

Chevron Products Company with Facility ID 800030 submitted application no. 405760 on August 20, 2002 for change of conditions of System 1 for No. 2 Oil/Water Separator and APC of Process 15 for Oil/Water Separation. The No. 2 Oil/Water Separator and APC is currently operating with a permit to construct issued on August 22, 1996 to application no. 318494. Conditions D90.11 regarding the frequency of VOC monitoring and E153.4 for each of the carbon canisters C1820 and C1822 (EFS-1 and EFS-2, respectively) have to be changed and to correct the equipment description of device D1221 from seven junction boxes to four junction boxes. These four junction boxes of device D1221 which currently do not show any connection to carbon adsorber C1820 in the Facility Permit has to be updated to reflect the connection to device C1820. The Facility Permit has to be updated to include two junction boxes identified as Dxxxx which are connected to carbon adsorber C1822 and five other junction boxes that are not listed in the permit but are vented directly to the atmosphere.

Condition D90.11 requires monitoring the hydrocarbon concentration at the inlet of each carbon canister and the outlet of the last carbon canister (three points) on a daily basis. The daily monitoring frequency was added sometime in 2000 for Title V gap filling. Chevron submitted monitoring data to the District in 6/2003 and District staff has agreed to weekly monitoring at the outlet of the final carbon canister as specified by condition D90.28 of the Title V permit instead of daily monitoring. Also monitoring at three points is not necessary because only the outlet concentration of each carbon canister is used for determining carbon breakthrough. This wastewater system experiences the presence of methane gas due to natural biological activities. Besides the use

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of organic vapor analyzer, Rule 1176 allows the use of grab samples that discount methane gas. Grab samples should be allowed in the permit condition to avoid premature changeout of carbon.

A summary of the permitting history for the No. 2 Oil/Water Separator (Process 15, System 1) is provided in Table 1. The No. 2 oil/water separator with APC was operating with a permit to construct issued on 8-22-1996 under A/N 318494 prior to the application for the change of permit conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant. According to PAATS, the No. 2 oil water separator with APC used to operate under permit D37807 (A/N 228634) due to its modification to connect to two carbon adsorbers to comply with Rule 1176 while the No. 4 oil water separator with APC used to operate under permit D37807 (A/N 228634) due to its modification to connect to two carbon adsorbers to comply with Rule 1176. However, research done on the evaluation report of permit D37808 (A/N 228635) revealed that the No. 2 oil water separator was actually operating under permit D37808 effective 4/25/1991. Thus, the correct previous application for A/N 318494 is 228635, not 228634.

**Table 1. Permitting History for No. 2 Separator and APC (P15S1)**

A/N	Permit #/ status	Date issued	A/N type	A/N status	Facility ID	Description
405760			60	20	800030 Chevron USA Products	Change of conditions to change the monitoring frequency of the carbon adsorbers C1820 and C1822
318494	P/C issued	8/22/96	50	26	53611 Chevron USA Products	Modification to replace the polymer storage tank in the No. 2 separator with a bigger capacity tank to reduce the filling frequency
228634 228635	D37807 Active D37808 Inactive	4/25/91	20	31	3793	Modification of oil-water separator to connect two activated carbon canisters to the vapor outlet of the oil-water separator to comply with the Rule 1176 for Sumps and Wastewater Separators (P/O with no P/C)
297425	D99601 Inactive	5/29/96	50	31	3793	Modification of the Induced Air Flotation (IAF) Unit which is part of the No. 2 oil water Separator to vent the vapors from the IAF Unit to two 2000-lb carbon canisters in series instead of the two 200-lb activated carbon drums

**P15/S2: No. 3 Oil Water Separator A/N 405761**

Chevron Products Company with Facility ID 800030 submitted application no. 405761 on August 20, 2002 for change of conditions of System 2 for No. 3. Oil/Water Separator and APC of Process 15 for Oil/Water Separation. The No. 3 Oil/Water Separator and APC is currently operating with a permit to operate F53354 issued on July 9, 2002 to application no. 401516 before the application for change of permit conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant. Conditions D90.11 regarding the frequency of VOC monitoring and E153.6 for each of the carbon canisters C1837 (EFS-3) have to be changed and device D1233 needs to be connected to the carbon canister C1837 to reflect the venting of device D1233 to the carbon canister C1837. Device C1837 (EFS-3) is a set of two carbon canisters in series that is used for controlling VOC emissions from the no. 3 oil water separator. Condition D90.11 requires monitoring the hydrocarbon concentration at the inlet of each carbon canister and the outlet of the last carbon canister (three points) on a daily basis. The daily monitoring frequency was added sometime in 2000 for Title V gap filling. Chevron submitted monitoring data to the District in 6/2003 and District staff has agreed to biweekly

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monitoring at the outlet of the final carbon canister as specified by condition D90.32 of the Title V permit instead of daily monitoring. Also monitoring at three points is not necessary because only the outlet concentration of each carbon canister is used for determining carbon breakthrough. This wastewater system experiences the presence of methane gas due to natural biological activities. Besides the use of organic vapor analyzer, Rule 1176 allows the use of grab samples that discount methane gas. Grab samples should be allowed in the permit condition to avoid premature changeout of carbon.

A summary of the permitting history for the No. 3 Oil/Water Separator (Process 15, System 2) is provided in Table 2. The No. 3 oil/water separator with APC was operating under permit F53354 issued on 7-9-2002 prior to the change of permit conditions. However, the No. 3 oil water separator was actually operating under permit D33700 effective 11/6/1990 after it was modified to connect to two carbon adsorbers to comply with Rule 1176.

**Table 2. Permitting History for No. 3 Separator and APC (P15/S2)**

A/N	Permit #/ status	Date issued	A/N type	A/N status	Facility ID	Description
405761			60	21	800030 Chevron USA Products	Change of conditions to change the monitoring frequency of the carbon adsorbers C1837
401516	F53354 Active	7/9/2002	63	31	800030	Administrative permit change to remove "3/4 Hp Skimmer from the Equipment Description of Device D1232
228636	D33700 Active	11/061990	50	31	3793	Modification of oil-water separator no. 3 to connect two activated carbon canisters to the vapor outlet of the oil-water separator to comply with the Rule 1176 for Sumps and Wastewater Separators
124397	M49599 Inactive	5/14/1986	10	31	3793	Modification of oil-water separator to add the sump and the two 300 hp effluent diversion pumps

**P15/S3: No. 4 Oil Water Separator A/N 405762**

Chevron Products Company with Facility ID 800030 submitted application no. 405762 on August 20, 2002 for change of conditions of System No. 3 for No. 4 Oil/Water Separator and APC of Process 15 for Oil/Water Separation. The No. 4 Oil/Water Separator and APC is currently operating with a permit to operate D37807 issued on April 25, 1991 to application no. 228634. Conditions D90.11 regarding the frequency of VOC monitoring and E153.6 for each of the carbon canisters C1839 (EFS-5) have to be changed and a new device for six enclosed junction boxes has to be included in the Facility Permit and this new device needs to be connected to carbon adsorber C1839. Device C1839 (EFS-5) is a set of two carbon canisters in series that is used for controlling VOC emissions from the no. 4 oil water separator. Condition D90.11 requires monitoring the hydrocarbon concentration at the inlet of each carbon canister and the outlet of the last carbon canister (three points) on a daily basis. The daily monitoring frequency was added sometime in 2000 for Title V gap filling. Chevron submitted monitoring data to the District in 6/2003 and District staff has agreed to biweekly monitoring at the outlet of the final carbon canister as specified by condition D90.32 of the Title V permit instead of daily monitoring. Also monitoring at three points is not necessary because only the outlet concentration of each carbon canister is used for determining carbon breakthrough. This wastewater system experiences the presence of methane gas due to natural biological activities. Besides the use of organic vapor analyzer, Rule 1176 allows the use of grab samples that discount methane gas. Grab samples should be allowed in the permit condition to avoid premature changeout of carbon.

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A summary of the permitting history for the No. 4 Oil/Water Separator (Process 15, System 3) is provided in Table 3. According to PAATS, the No. 2 oil water separator with APC used to operate under permit D37807 (A/N 228634) due to its modification to connect to two carbon adsorbers to comply with Rule 1176 while the No. 4 oil water separator with APC used to operate under permit D37807 (A/N 228634) due to its modification to connect to two carbon adsorbers to comply with Rule 1176. However, research done on the evaluation report of permit D37808 (A/N 228635) revealed that the No. 2 oil water separator was actually operating under permit D37808 effective 4/25/1991 while the No. 4 oil/water separator with APC was actually operating under permit D37807 effective 4-25-1991 before the application for change of permit conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant .

**Table 3. Permitting History for No. 4 Separator and APC (P15S3)**

A/N	Permit #/ status	Date issued	A/N type	A/N status	Facility ID	Description
405762			60	21	800030 Chevron USA Products	Change of conditions to change the monitoring frequency of the carbon adsorbers C1839
228634	D37807 Active	04/25/91	20	31	3793	Modification of oil-water separator to connect two activated carbon canisters to the vapor outlet of the oil-water separator to comply with the Rule 1176 for Sumps and Wastewater Separators (P/O with no P/C)

**P15/S4: Effluent Treating Plant A/N 405763**

Chevron Products Company with Facility ID 800030 submitted application no. 405763 on August 20, 2002 for change of conditions of System 4 for Effluent Treating Plant of Process 15 for Oil/Water Separation. The Effluent Treating Plant is currently operating with a permit to construct issued on July 15, 1997 to application no. 324869. Conditions D90.11 regarding the frequency of VOC monitoring and E153.6 for each of the carbon canisters C3218 (EFS-11) have to be changed and equipment descriptions of devices D1245, D1246, D1247, D1251 and D1252 need to be corrected and to add a carbon adsorber EFS-10 which vents the no. 2 forebay, the upstream part of device D3834. Carbon adsorber EFS-10 is identical to C1820, C1822, and C3218 in that it is a set of two carbon canisters in series that is used for controlling VOC emissions from the no. 2 forebay. Condition D90.11 requires monitoring the hydrocarbon concentration at the inlet of each carbon canister and the outlet of the last carbon canister (three points) on a daily basis. The daily monitoring frequency was added sometime in 2000 for Title V gap filling. Chevron submitted monitoring data to the District in 6/2003 and District staff has agreed to weekly monitoring at the outlet of the final carbon canister as specified by condition D90.28 of the Title V permit instead of daily monitoring. Also monitoring at three points is not necessary because only the outlet concentration of each carbon canister is used for determining carbon breakthrough. This wastewater system experiences the presence of methane gas due to natural biological activities. Besides the use of organic vapor analyzer, Rule 1176 allows the use of grab samples that discount methane gas. Grab samples should be allowed in the permit condition to avoid premature changeout of carbon.

A summary of the permitting history for the Effluent Treating Plant (Process 15, System 4) is provided in Table 4. The Effluent Treating Plant was operating with a permit to construct issued to A/N 324869 on 7-15-1997 prior to the application for change of permit conditions regarding the frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant .

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**Table 4. Permitting History for Effluent Treating Plant (P15/S4)**

A/N	Permit #/ status	Date issued	A/N type	A/N status	Facility ID	Description
405763			60	20	800030 Chevron USA Products	Change of conditions to change the monitoring frequency of the carbon adsorbers C3218 and Cbbbb
324869	P/C issued	7/15/97	50	26	3793 Chevron USA Products	Modification of wastewater treatment system to increase the capacity to accommodate the additional contaminant and hydraulic loading of groundwater produced from new recovery wells by converting the Equalization Basin T-500 to an additional Aeration Basin, thereby increasing the plant's treating capacity.
318508	P/C issued	8/22/96	50	52 Cancell ed 7/15/97	53611 Chevron USA Products	Modification of wastewater treatment system to replace the polymer storage tank T-290 with a bigger capacity tank to reduce the filling frequency
311811	P/C issued	3-14-96	10	52 Cancell ed 7/15/97	53611	Modification of wastewater treatment system to replace the 1300-gal. capacity surge tank ,T-203 with a new 4000 gal. capacity tank to meet the operating needs of the plant during periods of high flow rates such as during a rainstorm
284595	P/C -P/O D82969 Inactive	5/17/94	50	31	3793	Modification of tank T-102 by increasing the liquid's true vapor pressure 0.5 psia to 11 psia, increasing turnovers from 36/year to 50/year and adding a secondary seal and by consolidating the modifications granted through P/C 244613 issued on June 14, 1991 which involved the installation of floating aerators to the Equalization Basin T-500 and the addition of dome covers to Activated Sludge Basins T-600 and T-700
180703	D64503 P/O Inactive	10/30/92	50	31	3793	Modification of effluent-treating plant by adding a spare induced air flotation unit T-271, a spare IAF startup and recycle pump P-270B, a clarified IAF recycle pump P-281B and by altering tank T-102 by removing cone roof, replacing the floating pan with a double-deck floating roof, and replacing the toroidal primary seal with a District approved mechanical shoe seal

**P15/S5: Effluent Treating Plant APC A/N 405764**

Chevron Products Company with Facility ID 800030 submitted application no. 405764 on August 20, 2002 for change of conditions of System 5 for Effluent Treating Plant APC of Process 15 for Oil/Water Separation. The Effluent Treating Plant APC is currently operating with a permit to construct issued on July 15, 1997 to application no. 329719. Conditions D90.11 regarding the frequency of VOC monitoring and E153.1 for each of the carbon canisters C3167 and C3168 (EFS 6 and EFS 7) need to be changed. Each of the carbon canisters C3167 and C3168 is a single carbon canister that is used for VOC emission control.. Condition D90.11 for each carbon canister C3167 or C3168 will be revised to state that monitoring for VOC concentration (not hydrocarbon) is to be monitored at the outlet of the carbon canister, only when the canister is in use and condition E153.1 will be revised to state that VOC concentration (not hydrocarbon) is to be monitored.

A summary of the permitting history for the Effluent Treating Plant APC (Process 15, System 5) is provided in Table 5. The Effluent Treating Plant APC was operating under permit to construct issued to A/N 329719 on 7-15-1997 prior to the application for change of permit conditions regarding the

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frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant .

**Table 5. Permitting History for Effluent Treating Plant APC (P15S5)**

A/N	Permit #/ status	Date issued	A/N type	A/N status	Facility ID	Description
405764			60	20	800030 Chevron USA Products	Change of conditions to change the monitoring frequency of the carbon adsorbers C3167, C3168, C3169, and C3170
318508	P/C issued 8/22/96		50	52 Cancell ed 7/15/97	53611 Chevron USA Products	Modification of wastewater treatment system to replace the polymer storage tank T-290 with a bigger capacity tank to reduce the filling frequency
329719	P/C issued 7/15/1997	7/15/97	50	26	800030 Chevron USA Products	Modification of APC serving the Effluent Treating Plant (ETP) consisting of the Regenerative Thermal Oxidizer (RTO), the Scrubbers, and the Carbon Adsorbers by venting Aeration Basins T-500, T-600 and T-700 directly to the RTO instead of first passing through the scrubbers and to continue venting T-500 to carbon canisters when the RTO is down. If only the caustic scrubber is out of service, DAT and T-108 vapors will be routed to Carbon while the Aeration Basins will continue to be routed to the RTO.
230634	P/C Issued 5/28/91	5/28/91	50	51	3793	Modification of the waste water effluent vapor control system as described on permit M04471 by addition of regenerative thermal oxidizer, two caustic scrubbers and one water scrubber
C13110	M04471 Inactive	07/24/78	10	31	3793	New construction of activated carbon adsorbers venting the effluent treating plant

Application no. 505399 was submitted on January 14, 2010 for Title V De Minimis Significant Permit Revision and RECLAIM Facility Permit amendment since Chevron Products Company was already issued an initial Title V Facility Permit effective October 12, 2009. This Title V Facility Permit amendment due to the frequency change of the periodic monitoring of the VOC concentration at the inlet and/or outlet of the carbon adsorbers venting the emission sources of the water oil separators and the effluent treating plant and the air pollution control system of the effluent treating plant for Process 15 is classified as a Title V Minor Permit Revision since there are no emission changes as a result of the change of permit conditions. The carbon adsorbers were initially installed to comply with Rule 1176. The proposed permits will be submitted to EPA for a 45-day review period upon completion of AQMD's evaluation before a final permit is issued. EPA will comment and submit recommendations to AQMD during the 45-day period.

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**FEE SUMMARY:**

Table 6 summarizes the permit processing fees for the permit applications:

**Table 6. Fee Summary**

A/N	Equipment	Type	Fee Sch.	Fee Required	Fee Paid
405760	Wastewater Treatment System Change of Conditions	60	E	\$2,950.83	\$2,950.83
405761	Wastewater Treatment System Change of Conditions	60	D	\$2,009.77	\$2,009.77
405762	Wastewater Treatment System Change of Conditions	60	D	\$2,009.77	\$2,009.77
405763	Effluent Treating Plant Modification	50	E	\$4,426.25	\$2,950.83
405764	Effluent Treating Plant APC Change of Conditions	60	D	\$2,009.77	\$2,009.77
505399	Title V De Minimis Significant Permit Revision	85	C	\$1,687.63	\$1,687.63
Total				\$15,094.02	\$13,618.60

**PROCESS DESCRIPTION:**

Chevron Products Company with Facility ID 800030 operates Process 15 for Oil/Water Separation consisting of three oil water separators and effluent treating plant and effluent treating plant APC. Emission sources from the operation of the three oil water separators and the effluent treating plant are vented to an air pollution control equipment in the form of carbon adsorbers and regenerative thermal oxidizer.

The oil water separators remove oil and solids from water using residence time, gravity and internal design features (overflow "J" weirs and baffles). Oil floating on top of the water is skimmed off for re-processing. The solids that settled at the bottom will be removed when the oil water separator is cleaned out.

The regenerative thermal oxidizer F-707 identified as device C2158 at the Effluent Treating Plant (ETP) air pollution control system combusts two vent gas streams from the ETP: the DAF (dissolved

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air flotation) stream and the ASU (activated sludge unit) stream. The two streams are combined prior to being fed to the thermal oxidizer F-707. The combined stream is a "process gas".

The DAF vent gas stream is composed of gases from the following devices:

- D1238 (Tank 108)
- D1239 (Tank 200)
- D1240 (Tank 201)
- D1241 (Tank 202)
- D1242 (Tank 203)
- D1248 (Tank 300)
- D1249 (Tank 301)
- D1250 (Tank 302)
- D1251 (Tank 303)

In normal operating mode (F-707 is operating), this stream goes through caustic scrubbers C2159/C2160 and water scrubber C2161 before being combusted in thermal oxidizer F-707.

The ASU vent gas stream is composed of gases from the following devices:

- D1253 (Tank 500)
- D1254 (Tank 600)
- D1257 (Tank 700)
- D2162 (Tank 719)

This stream does not pass through the scrubbers. It is combined with the DAF stream prior to being fed to thermal oxidizer F-707.

Both the fuel gas stream (supplemental fuel) and the process gas stream from the waste water treatment plant comply with the H<sub>2</sub>S concentration limit of 160 ppm specified by condition B61.10.

The thermal oxidizer will remain a major RECLAIM SO<sub>x</sub> source because it still burns a process gas. Operation of the thermal oxidizer F-707 complies with 40 CFR 60 Subpart J by monitoring H<sub>2</sub>S in the refinery fuel gas using GC and in the process gas from the ETP in accordance with the approved AMP. 40 CFR 60 Subpart J allows two compliance options: measuring SO<sub>x</sub> in the stack (20 ppm) or measure H<sub>2</sub>S in the fuel gas with 160 ppm as the limit.

The thermal oxidizer F-707 also burns "refinery fuel gas" as a supplemental fuel. NSPS Subpart J requires that the H<sub>2</sub>S in each stream (process gas and refinery fuel gas ) be monitored. H<sub>2</sub>S in the refinery fuel gas stream is monitored for compliance with Subpart J using a gas chromatograph (GC). H<sub>2</sub>S in the combined process gas stream is monitored in accordance with the EPA approved alternative monitoring plan (AMP). A GC would not work for the process gas stream due to low H<sub>2</sub>S concentration. For detailed process descriptions, please refer to the P/C evaluations for the modifications of the No. 2 Oil Water Separator and APC in application no. 318494, of the Effluent Treating Plant in application no. 324869 and of the Effluent Treating Plant APC in application no. 329719.

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**EMISSION CALCULATIONS:**

**1. Application No. 405760 - No. 2 Oil Water Separator and APC**

Operating schedule: 24 hours per day, 7 days per week, 52 weeks per year

Oil water separator identified as device D1220 is vented to two carbon adsorbers in series, devices C1820 and C 1822, each with 2000 lb of granular activated carbon.

Emissions of VOC from the operation of the no. 2 oil water separator and APC before changing the frequency of monitoring the VOC concentration at the carbon adsorbers = Emissions of VOC from the operation of the no. 2 oil water separator and APC after changing the frequency of monitoring the VOC concentration at the carbon adsorbers since VOC emissions are not affected by the change of conditions.

Application no. 228635 (D37808) for the installation of the two carbon adsorbers in series to control emissions from the no. 2 oil/water separator to comply with Rule 1176 contains calculations for the uncontrolled and controlled emissions from the oil/water separator as shown below

EPA methods of calculating VOC emissions from API separator were used to estimate the atmospheric emissions of the separator using the Litchfield equation and the calculated emission factor for the separator. Current operation of the separator is 90% efficient in controlling emissions from the separator, without the carbon adsorbers.

Average flow rate through No. 2 Oil Water Separator = 3,700 gallons per minute  
= 1,944,720,000 gallons per year

Oil concentration of the No. 2 Oil Water Separator = 880 mg/liter = 7.33 lb/Mgal

Using the Litchfield equation  $V = -6.6339 + 0.0319 X - 0.0286 Y + 0.2145 Z$

where V = Percent volume loss after 24 hours

X = ambient temperature in °F = 68°F

Y = 10% true boiling point in °F = 300°F

Z = influent temperature in °F = 93°F

$$V = (-6.6339) + (0.0319) (68) - (0.0286) (300) + (0.2145) (93) = 6.90\%$$

Emission factor = V x Concentration in lb/Mgal = (0.069) (7.33 lb/Mgal) = 0.506 lb/Mgal

Total uncontrolled emissions of ROG from the operation of No. 2 Oil Water Separator  
= Emission factor in lb/Mgal (Flow rate in Mgal/yr) = 0.506 lb/Mgal (1,944,720 Mgal/yr)  
=  $9.84 \times 10^5$  lb per year = 984,000 lb per year = 2695.89 lb per day = 112.33 lb per hour

VOC control efficiency of carbon adsorbers = 95%

Controlled emissions of ROG from the operation of No. 2 Oil Water Separator and APC  
= Total uncontrolled emissions (1-0.95) = 984,000 lb per year (0.05) = 49,200 lb per year  
= 134.79 lb per day = 5.62 lb per hour

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Previous emissions from the operation of No. 2 Oil Water Separator and APC from A/N 318494 of the NSR data base are shown below:

R1 = 112.33 lb per hour = 2695.89 lb per day = 984,000 lb per year  
R2 = 5.62 lb per hour = 134.79 lb per day = 49,200 lb per year

## 2. Application No. 405761 - No. 3 Oil Water Separator and APC

Operating schedule: 24 hours per day, 7 days per week, 52 weeks per year

Oil water separator identified as device D1232 is vented to two carbon adsorbers in series, devices C1837, each with 2000 lb of granular activated carbon.

Emissions of VOC from the operation of the no.3 oil water separator and APC before changing the frequency of monitoring the VOC concentration at the carbon adsorbers = Emissions of VOC from the operation of the no. 3 oil water separator and APC after changing the frequency of monitoring the VOC concentration at the carbon adsorbers since VOC emissions are not affected by the change of conditions.

Application no. 228636 (D33700) for the installation of the two carbon adsorbers in series to control emissions from the no. 3 oil/water separator to comply with Rule 1176 contains calculations for the uncontrolled and controlled emissions from the oil/water separator as shown below:

EPA methods of calculating VOC emissions from API separator were used to estimate the atmospheric emissions of the separator using the Litchfield equation and the calculated emission factor for the separator. Current operation of the separator is 90% efficient in controlling emissions from the separator, without the carbon adsorbers.

Average flow rate through No. 3 Oil Water Separator = 1,000 gallons per minute  
= 525,600,000 gallons per year

Oil concentration of the No. 3 Oil Water Separator = 880 mg/liter = 7.33 lb/Mgal

Using the Litchfield equation  $V = -6.6339 + 0.0319 X - 0.0286 Y + 0.2145 Z$

where V = Percent volume loss after 24 hours  
X = ambient temperature in °F = 68°F  
Y = 10% true boiling point in °F = 300°F  
Z = influent temperature in °F = 93°F

$$V = (-6.6339) + (0.0319)(68) - (0.0286)(300) + (0.2145)(93) = 6.90\%$$

Emission factor = V x Concentration in lb/Mgal = (0.069) (7.33 lb/Mgal) = 0.506 lb/Mgal

Total uncontrolled emissions of ROG from the operation of No. 3 Oil Water Separator  
= Emission factor in lb/Mgal (Flow rate in Mgal/yr) = 0.506 lb/Mgal (525,600 Mgal/yr)  
= 265,953.6 lb per year = 728.64 lb per day = 30.36 lb per hour

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VOC control efficiency of carbon adsorbers = 95%

Controlled emissions of ROG from the operation of No. 3 Oil Water Separator and APC  
= Total uncontrolled emissions (1-0.95) = 265,953.6 lb per year (0.05) = 13,297.68 lb per year  
= 36.43 lb per day = 1.52 lb per hour

However, NSR emissions for previous permit no. F53354/application no. 401516 which was submitted for administrative permit change to remove "3/4 Hp Skimmer" from the equipment description of device D1232 did not show numerical values for the uncontrolled and controlled emissions of ROG from the operation of the No. 3 Oil Water Separator and APC. These emissions of ROG need to be corrected to the following values:

R1 = 30.36 lb per hour = 728.64 lb per day = 265,953.6 lb per year  
R2 = 1.52 lb per hour = 36.43 lb per day = 13,297.68 lb per year

### 3. Application No. 405762 - No. 4 Oil Water Separator and APC

Operating schedule: 24 hours per day, 7 days per week, 52 weeks per year

Oil water separator identified as device D1235 is vented to two carbon adsorbers in series, device C1839, each with 2000 lb of granular activated carbon.

Emissions of VOC from the operation of the no. 4 oil water separator and APC before changing the frequency of monitoring the VOC concentration at the carbon adsorbers = Emissions of VOC from the operation of the no. 4 oil water separator and APC after changing the frequency of monitoring the VOC concentration at the carbon adsorbers since VOC emissions are not affected by the change of conditions.

Application no. 228634 for the installation of the two carbon adsorbers in series to control emissions from the no. 4 oil/water separator to comply with Rule 1176 contains calculations for the uncontrolled and controlled emissions from the oil/water separator as shown below:

EPA methods of calculating VOC emissions from API separator were used to estimate the atmospheric emissions of the separator using the Litchfield equation and the calculated emission factor for the separator. Current operation of the oil water separator is 90% efficient in controlling emissions from the separator, without the carbon adsorbers.

Average flow rate through No. 4 Oil Water Separator = 1,500 gallons per minute  
= 788, 400,000 gallons per year

Oil concentration of the No. 4 Oil Water Separator = 880 mg/liter = 7.33 lb/Mgal

Using the Litchfield equation  $V = -6.6339 + 0.0319 X - 0.0286 Y + 0.2145 Z$

where V = Percent volume loss after 24 hours

X = ambient temperature in °F = 68°F

Y = 10% true boiling point in °F = 300°F

Z = influent temperature in °F = 93°F

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$$V = (-6.6339) + (0.0319) (68) - (0.0286) (300) + (0.2145) (93) = 6.90\%$$

$$\text{Emission factor} = V \times \text{Concentration in lb/Mgal} = (0.069) (7.33 \text{ lb/Mgal}) = 0.506 \text{ lb/Mgal}$$

Total uncontrolled emissions of ROG from the operation of No. 4 Oil Water Separator  
 = Emission factor in lb/Mgal (Flow rate in Mgal/yr) = 0.506 lb/Mgal (788,400 Mgal/yr)  
 =  $3.99 \times 10^5$  lb per year = 1093.15 lb per day = 45.55 lb per hour

VOC control efficiency of two carbon adsorbers in series = 95%

Controlled emissions of ROG from the operation of No. 4 Oil Water Separator  
 = (Total Uncontrolled Emissions) (1 - 0.95) =  $3.99 \times 10^5$  lb per year (0.05)  
 = 19,950 lb per year = 54.66 lb per day = 2.28 lb per hour

However, NSR emissions for previous permit no. D37807/application no. 228634 did not show numerical values for the uncontrolled and controlled emissions of ROG from the operation of the No. 4 Oil Water Separator and APC. These emissions of ROG need to be corrected to the following values:

$$R1 = 45.55 \text{ lb per hour} = 1093.15 \text{ lb per day}$$

$$R2 = 2.28 \text{ lb per hour} = 54.66 \text{ lb per day} = 19,950 \text{ lb per year}$$

#### 4. Application No. 405763 - Effluent Treating Plant

Operating schedule: 24 hours per day, 7 days per week, 52 weeks per year

Recovered oil/water sump T-108 (device D1238), rapid mix tanks T-200 and T-300 (devices D1239 and D1248), flocculation tanks T-201 and T301 (devices D1240 and D1249), flotation tanks T-202 and T-302 (devices D1249 and D1250), surge tank T-203 (device D1242) are vented to caustic scrubber (device C2159) and two carbon adsorbers in series (devices C3167 and C3168) for control of VOC emissions.

Aeration basin tanks T-500, T-600, and T-700 ( devices D1253, D1254, and D1257) are vented to regenerative thermal oxidizer (device C2158) and aeration basin tank T-500 is also vented to two carbon adsorbers in series (devices C3169 and C3170). Air flotation unit T-270 (device D1243) is vented to carbon adsorber (device C1841) while air flotation unit T-370 (device D1244) is vented to carbon adsorber (device C1842) for control of VOC emissions.

Typically, the RTO operates approximately 90% of the year. During the periods of time when the RTO is not in service, DAF and T-108 vapors are routed through one activated carbon bed (V-204 or V-304). T-600 and T-700 currently vent to the atmosphere when the RTO is down but T-500 will vent to the carbon canisters C3169 and C3170 when the RTO is down.

If only the caustic scrubber is out of service, DAF and T-108 vapors will be routed to carbon adsorbers C3167 and C3168, while the vapors from the Aeration Basins will continue to be routed to the RTO.

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Emissions of VOC from the operation of the Effluent Treating Plant before changing the frequency of monitoring the VOC concentration at the carbon adsorbers = Emissions of VOC from the operation of the Effluent Treating Plant after changing the frequency of monitoring the VOC concentration at the carbon adsorbers since VOC emissions are not affected by the change of conditions.

Controlled emissions of ROG from the operation of Effluent Treating Plant based on P/C evaluation for A/N 324869 = 0.29 lb per hour = 7.01 lb per day = 2,550.91 lb per year

VOC control efficiency of regenerative thermal oxidizer = 98%

VOC control efficiency of carbon adsorbers = 95%

Overall VOC control efficiency of both regenerative thermal oxidizer and carbon adsorbers based on typical 90% operation of the year by the RTO and typical 10% operation of the year by the carbon adsorbers = 98% (0.90) + 95% (0.10) = 88.2 + 9.5 = 97.7%

Maximum uncontrolled emissions of ROG from the operation of Effluent Treating Plant based on P/C evaluation for A/N 324869 and control efficiency of 95% = 0.29 lb per hour/0.05 = 5.8 lb per hour = 139.2 lb per day

## 5. Application No. 405764 - Effluent Treating Plant APC

The Air Pollution Control System serving the Effluent Treating Plant includes the Regenerative Thermal Oxidizer (RTO - device C2158), two caustic Scrubbers (devices C2159 and C2160), one water Scrubber (device C2161) and four Carbon Adsorbers (devices C3167, C3168, C3169 and C3170). Emissions of combustion air contaminants from the operation of the RTO which is part of System 5 for the Effluent Treating Plant APC as calculated in A/N 329719 evaluation to remain the same for A/N 405764 since no change in emissions are expected for the change of conditions for VOC monitoring at the inlet and/or outlet of the carbon adsorbers.

Condition A63.20 for device C2158 limits emissions from the operation of the 3.4 MMBtu per hour regenerative thermal oxidizer to the following:

CO	Less than or equal to 176 lbs per day
PM10	Less than or equal to 18.2 lbs per day
ROG	Less than or equal to 37.5 lbs per day

**Table 5. Summary of RTO Emissions from A/N 329719**

Contaminant	R1, lb/hr	R1, lb/day	R2, lb/hr	R2, lb/day	R2, lb/yr
CO	7.25	174	7.25	174	63,336
NOx	4.58	110	4.58	110	40,150
PM <sub>10</sub>	0.76	18.24	0.76	18.24	6,657.6
ROG	1.56	37.50	1.56	37.50	13,650
SOx	3.426	82	3.42	82	29,930
TOG	78.13	1,875	1.56	37.50	13,650

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Application no. 405764 was submitted to change the frequency of monitoring the VOC concentration at the inlet and outlet of each carbon canister from daily as specified by condition D90.11 to once every day at the outlet of the final carbon canister as specified by revised condition D90.11 of the Title V permit for each of the carbon canisters C3167 and C3168 (EFS 6 and EFS 7) and C3169 and C3170 (EFS-8 and EFS-9). Each of the carbon canisters C3167 and C3168 and C3169 and C3170 is a single carbon canister that is used for VOC emission control. Condition D90.11 for each carbon canister C3167 or C3168 or C3169 or C3170 will be revised to state that monitoring for VOC concentration (not hydrocarbon) is to be monitored at the outlet of the final carbon canister, only when the carbon adsorber is in use.

Emissions of VOC from the operation of the Effluent Treating Plant APC before changing the frequency of monitoring the VOC concentration at the carbon adsorbers = Emissions of VOC from the operation of the Effluent Treating Plant APC after changing the frequency of monitoring the VOC concentration at the carbon adsorbers since VOC emissions are not affected by the change of conditions.

#### 6. Application No. 505399 – Minor Title V Permit Revision

Application no. 505399 was submitted on January 14, 2010 for Title V Minor Permit Revision and RECLAIM Facility Permit amendment since Chevron Products Company was already issued an initial Title V Facility Permit effective October 12, 2009. This Title V Facility Permit amendment due to the frequency change of the periodic monitoring of the VOC concentration at the inlet and/or outlet of the carbon adsorbers venting the emission sources of the water oil separators and the effluent treating plant and the air pollution control system of the effluent treating plant for Process 15 is classified as a Title V Minor Permit Revision since there are no emission changes as a result of the change of permit conditions. The carbon adsorbers were initially installed to comply with Rule 1176. The proposed permits will be submitted to EPA for a 45-day review period upon completion of AQMD's evaluation before a final permit is issued. EPA will comment and submit recommendations to AQMD during the 45-day period.

#### PERMIT CONDITIONS COMPLIANCE CHECK

S13.7 The No. 2 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC are in compliance with NESHAPS, Subpart FF – National Emission Standard for Benzene Waste Operations since emission sources from the operation of the three oil water separators and the effluent treating plant are vented to carbon adsorbers and the regenerative thermal oxidizer.

A63.20 The regenerative thermal oxidizer F-707 identified as C2158 complies with the emission limits specified by this condition based on the source test conducted on July 13, 14, and 15, 1998. See rule evaluation for more detailed explanation. Continued compliance is expected.

A72.1 The regenerative thermal oxidizer F-707 identified as C2158 complies with the minimum overall control efficiency of 98 percent based on the source test conducted on July 13, 14, and 15, 1998. See rule evaluation for more detailed explanation. Continued compliance is expected.

A72.3 The regenerative thermal oxidizer F-707 identified as C2158 complies with the minimum destruction efficiency of 95 percent based on the source test conducted on July 13, 14, and 15, 1998 to comply with Rule 1176 and NESHAP Subpart CC. See rule evaluation for more detailed explanation. Continued compliance is expected.

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- B61.10 The regenerative thermal oxidizer F-707 identified as C2158 complies with this condition since it uses refinery gas with maximum H<sub>2</sub>S concentration limit of 160 ppmv. See rule evaluation for more detailed explanation. Continued compliance is expected.
- C8.1 The caustic scrubbers C2159 and C 2160 comply with this condition since the flow rate of the recirculating solution is not less than 90 gpm. See rule evaluation for more detailed explanation. Continued compliance is expected.
- C8.2 The caustic scrubbers C2159 and C 2160 comply with this condition since the pH of recirculating solution is not less than 10 of the pH scale. See rule evaluation for more detailed explanation. Continued compliance is expected.
- C8.4 The regenerative thermal oxidizer F-707 identified as C2158 complies with the minimum operating temperature of 1400<sup>o</sup>F since it is equipped with a temperature reading device to accurately indicate the temperature in the firebox or in the duct work immediately downstream of the firebox. See rule evaluation for more detailed explanation. Continued compliance is expected.
- D12.8 The regenerative thermal oxidizer F-707 identified as C2158 complies with this condition since it is equipped with a flow meter to accurately indicate the flow rate at the vapor feed line to the thermal oxidizer. Continued compliance is expected.
- D12.9 The water scrubber C2161 complies with this condition since it is equipped with a flow meter to accurately indicate the flow rate of water across the scrubber. Continued compliance is expected.
- D28.10 The regenerative thermal oxidizer F-707 identified as C2158 complies with this condition that requires a source test to be conducted once every three years to determine the VOC control efficiency of the thermal-oxidizer. Continued compliance is expected.
- D90.11 Carbon adsorbers C3167, C3168, C3169 and C3170 are currently in compliance with this condition for the daily monitoring of the VOC concentration at the outlet of the final carbon canister. See rule evaluation for more detailed explanation. Continued compliance is expected.
- D90.28 Carbon adsorbers C1820, C1841, and C1842 are currently in compliance with this condition for the weekly monitoring of the VOC concentration at the outlet of the final carbon canister. See rule evaluation for more detailed explanation. Continued compliance is expected.
- D90.31 RTO (F-707) is in compliance with this condition for the continuous monitoring of the H<sub>2</sub>S concentration of the fuel gases before being burned in the thermal oxidizer. See rule evaluation for more detailed explanation. Continued compliance is expected.
- D90.33 Carbon adsorber C1822 is currently in compliance with this condition for the monitoring of the VOC concentration at the outlet of the final carbon canister once every four days. See rule evaluation for more detailed explanation. Continued compliance is expected.
- D90.39 RTO (F-707) is currently in compliance with this condition for the periodic monitoring H<sub>2</sub>S concentrations for the fuel gases before being burned. The Alternative Monitoring Plan approved by USEPA on September ,1 2005 requires the periodic monitoring H<sub>2</sub>S concentrations and recording of

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waste gas streams from the Effluent Treating Plant to the regenerative thermal oxidizer. See rule evaluation for more detailed explanation. Continued compliance is expected.

- E54.3 Aeration basins T-600 and T-700 are currently in compliance with this condition because these devices do not need to vent to the RTO whenever the RTO is shutdown during breakdown or maintenance. Continued compliance is expected.
- E57.2 Sump Tank T-108, Rapid Mix Tank T-200, Flocculation Tank T-201, Flotation Tank T-202, surge tank T-203 and Rapid Mix tank T-300 are currently in compliance with this condition because these devices vent to carbon canisters, devices C3167 or C3168 whenever the RTO and/or scrubbers are shutdown during breakdown or maintenance. Continued compliance is expected.
- E57.3 Aeration Basin T-500 and Spent Caustic Tank T-719 are currently in compliance with this condition because these devices vent to carbon canisters, devices C3169 or C3170 whenever the RTO is shutdown during breakdown or maintenance. Continued compliance is expected.
- E57.4 Rapid Mix Tank T-300, Flocculation Tank T-301, Flotation Tank T-302 and Float Surge Tank T-303 are currently in compliance with this condition because these devices vent to the scrubber and RTO whenever they are operated as a DAF unit. Continued compliance is expected.
- E71.2 Oil water separators D1232 and D1235 are currently in compliance with this condition since all sour water is treated to minimize sulfide content prior to discharging into the oil water separators. Continued compliance is expected.
- E73.3 RTO (F-707) is currently in compliance with this condition because the thermal oxidizer does not need to be used during maintenance or breakdown periods or when carbon adsorbers C3167 or C3168 and C3169 or C3170 are in full operation. Continued compliance is expected.
- E73.4 Caustic scrubbers C-717A and C-717B and water scrubber C-718 are currently in compliance with this condition because the scrubbers do not need to be used during maintenance or breakdown periods or when carbon adsorbers C3167 or C3168 is in full operation. Continued compliance is expected.
- E128.1 Carbon adsorbers EFS-1, EFS-2, V-204, V-304, V-512A, V-512B, and EFS-11 are currently in compliance with this condition because all the spent carbon are kept in tightly covered containers which remain closed except when being transferred into or out of the container. Continued compliance is expected.
- E153.4 Carbon adsorbers EFS-1, EFS-2, V-204, V-304, V-512A, V-512B, and EFS-11 are currently in compliance with this condition because the carbon in the adsorber needs to be changed over whenever breakthrough occurs. Continued compliance is expected.
- E193.xx Added when District Inspector issued an NOV in error due to the permit condition which allows the facility to vent the gases to the atmosphere during breakdown and maintenance period. Inspector thought RTO (F-707) failed to control VOC emissions from the Effluent Treating Plant but was not a violation because the RTO can be shutdown for maintenance or breakdown.**
- E223.1 RTO (F-707) is currently in compliance with this condition because there is an interlock control to stop the operation of the equipment if flame is out. Continued compliance is expected.

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H23.1 Float/Sludge Tank T-102 is currently in compliance with this condition since the double deck floating roof is equipped with a mechanical shoe primary seal and rim-mounted secondary wiper seal. Continued compliance is expected.

H23.3 Miscellaneous fugitive emissions D3660 and D3663 are currently in compliance with this condition since these emissions comply with District Rule 1173. See rule evaluation for more detailed explanation. Continued compliance is expected.

H23.4 Most of the devices of the No. 2 Oil/Water Separator No. 2 and APC System, most of the devices of the Effluent Treating Plant and but only knock out pot V-709 identified as device D2163 of the Effluent Treating Plant APC are currently in compliance with District Rule 1176 for Sumps and Wastewater Separators since emission sources from the operation of the three oil water separators and the effluent treating plant are vented to carbon adsorbers and the regenerative thermal oxidizer. See rule evaluation for more detailed explanation. Continued compliance is expected.

H23.44 RTO (F-707) is currently in compliance with this condition since fuel gas burned in the regenerative thermal oxidizer complies with the H<sub>2</sub>S concentration limit specified by 40CFR 60 Subpart J. See rule evaluation for more detailed explanation. Continued compliance is expected

**RULES EVALUATION:**

***PART I SCAQMD REGULATIONS***

**Rule 212**  
11/14/97

Standards for Approving Permits and Issuing Public Notices

Rule 212 requires public notice for the construction of a new source at a facility if 1) it is located within 1000 feet of a school; 2) any emission increase exceeds the daily maximums as specified in subsection (g) of this rule; or 3) any emission increase in toxic air contaminants for which a person may be exposed to a Maximum Individual Cancer Risk (MICR) of 1 in a million or greater. A public notice is not required for change of conditions of the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC because the emission sources are not located within 1000 feet of a school, emission increases from the change of conditions do not exceed the daily maximums as specified in subsection (g) of this rule; and no emission increase of toxic air contaminants are expected from these change of conditions.

**Rule 402**  
05/07/76

Nuisance

This rule prohibits the discharge of air contaminants that cause injury, detriment, nuisance, or annoyance to a considerable number of persons; endanger the comfort, health or safety of any person; or cause injury to property. A nuisance potential exists when the regenerative thermal oxidizer is shutdown because there is a permit condition that allows aeration basins T-600 (D1254) and T-700 (D1257) to vent to the atmosphere when the regenerative thermal oxidizer (C2158) is shutdown, while

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aeration basin T-500 (D1253) will vent to the carbon canisters V-512A (C3169) and V-512A (C3170) when the RTO is down . Condition E193.xx would help to reduce any nuisance potential for odor when the RTO is down.

**Rule 464**  
12/07/90

Wastewater Separators

This rule applies to wastewater separators which are used to separate petroleum-derived compounds from wastewater. Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers controlling the VOC emissions from the operation of the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/ Water Separation Process is expected to comply with Rule 464 since emission sources from the operation of the three oil water separators and the effluent treating plant are vented to carbon adsorbers and the regenerative thermal oxidizer.

**Rule 1173**  
06/01/07

Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants

Rule 1173 applies to control of volatile organic compound leaks from valves, fittings, pumps, compressors, pressure relief devices, diaphragms, hatches, sightglasses, etc. Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/ Water Separation Process does not result in an emission increase of air contaminants. Chevron U. S. A. Products Company will continue to comply with the applicable requirements of Rule 1173 regarding leak control, identification, operator inspection, maintenance, and recordkeeping requirements for valves, pumps, compressors, pressure relief valves and other components where fugitive emissions occur as part of this project since the valves, fittings and pumps are with BACT in the form of bellows seal and double mechanical seals.

**Rule 1176**  
09/13/91

Sumps and Wastewater Separators

This rule applies to wastewater separators and sumps which are used to separate petroleum-derived compounds from wastewater. Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/ Water Separation Process is expected to comply with Rule 1176 since emission sources from the operation of the three oil water separators and the effluent treating plant are vented to carbon adsorbers and the regenerative thermal oxidizer.

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**Reg. XIII**  
12/06/02

**New Source Review for VOC, CO, PM<sub>10</sub>, and NH<sub>3</sub> Emissions**

This rule applies to new, modified, or relocated sources that increase emissions of any non-attainment air contaminants, ammonia, or ozone-depleting compounds. Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation does not result in an emission increase of criteria air contaminants. BACT and offsets of New Source Review (NSR) do not apply to these change of conditions. Compliance with this rule is expected.

**Reg. XIV**  
03/04/05  
12/06/02

**Toxics**

**Rule 1401 New Source Review of Toxic Air Contaminants**

This rule applies to new, modified, or relocated sources that increase emissions of any non-attainment air contaminants, ammonia, or ozone-depleting compounds. Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation does not result in an emission increase of criteria air contaminants. BACT and offsets of New Source Review (NSR) do not apply to these change of conditions. Compliance with this rule is expected.

There will be no increase in toxic air contaminants as a result of the change in the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation since emission sources from the oil water separation process and the effluent treating plant are vented to air pollution control equipment. Compliance with Rule 1401 is expected because emissions of toxic air contaminants from the operation of the oil water separators and the effluent treating plant are vented to air pollution control equipment.

**Reg. XX**  
05/06/05

**Regional Clean Air Incentives Market (RECLAIM)**

Chevron U. S. A. Products Company with Facility ID 800030 is both NO<sub>x</sub> and SO<sub>x</sub> RECLAIM Cycle II facility that is subject to Reg XX. RECLAIM only applies to NO<sub>x</sub> and SO<sub>x</sub> emission sources. Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation does not have an impact on existing permitted NO<sub>x</sub> or SO<sub>x</sub> sources.

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**Reg. XXX**  
11/14/97

**Title V Permits**

The Title V Permit System is implemented in accordance with Title V of the 1990 Amendments to the Federal Clean Air Act. Application no. 505399 was submitted on January 14, 2010 for Title V Minor Permit Revision and RECLAIM Facility Permit amendment since Chevron Products Company was already issued an initial Title V Facility Permit effective October 12, 2009. All monitoring changes were already incorporated on the initial Title V permit issued on October 12, 2009. This Title V Facility Permit amendment is classified as a Title V Minor Permit Revision due to the addition of carbon adsorber EFS-10 to control VOC emissions from the operation of the forebay of System 4 for the Effluent Treating Plant of Process 15 for Oil Water Separation. The No. 2 forebay was already an existing piece of equipment at the refinery. However, it was previously treated as integral to the West Pit (D3834). Chevron prefers to treat the No. 2 forebay as a separate device. The proposed permit will be submitted to EPA for a 45-day review period upon completion of AQMD's evaluation before a final permit is issued. EPA will comment and submit recommendations to AQMD during the 45-day period.

*PART II STATE REGULATIONS*

**CEQA**

**California Environmental Quality Act**

CEQA requires that the environmental impacts of projects be evaluated and that feasible methods to reduce, avoid, or eliminate identified significant adverse impacts of these projects be considered. Because this project would simply change the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/ Water Separation, no further CEQA review is required.

*PART III FEDERAL REGULATIONS*

**40CFR Part Standards for Performance for Petroleum Refineries**

**60 Subpart J** The regenerative thermal oxidizer F-707 is still classified as a SOx major source under RECLAIM with a SOx CEMS at the exhaust stack. The SOx CEMS installed in 1994 when the RECLAIM program first started is used for reporting SOx emissions under RECLAIM and not used for measuring the 20 ppm SO<sub>2</sub> under Subpart J. Subpart J allows Chevron two options to comply. One option is to measure the 20 ppm SO<sub>2</sub> at the stack or monitor the H<sub>2</sub>S in the fuels. Compliance with Subpart J is accomplished by monitoring the H<sub>2</sub>S in the supplemental fuel using a gas chromatograph as specified by condition D90.31 and in the waste gas stream from the Effluent Treating Plant using an alternative monitoring plan as specified by condition D90.39.

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**40CFR Part National Emission Standards for Benzene Waste Operations**

**61 Subpart FF** Changing the frequency of the periodic monitoring of the VOC concentration at the outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation are expected to comply with 40 CFR 61 Subpart FF since benzene emission sources from the operation of the oil water separation process and the effluent treating plant are vented to air pollution control equipment.

**40CFR Part National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries**

**63 Subpart CC** As specified in the Emissions and Requirements Section of the Facility Permit, emission sources from the operation of the oil water separators and the effluent treating plant are subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Petroleum Refineries, as required by 40 CFR 63 Subpart CC due to their potential to emit hazardous air pollutants, such as benzene, ethyl benzene, hexane, naphthalene, phenol, toluene, and xylene, which are included in Table 1 of Subpart 63. However, these emission sources of hazardous air pollutants are vented to an air pollution control equipment to comply with 40 CFR 63 Subpart CC.

AQMD Rules 463, 464, 1173, 1176 and 1178 along with the carbon adsorbers C1820, C1822, C1837, C1839, C1841, C1842, C3167, C3168, C3169, C3170, and C3218 and the regenerative thermal oxidizer C2158 of Process 15 for Oil/Water Separation. ensure compliance with this regulation.

**CONCLUSION:**

Based on the evaluation above, changing the frequency of the periodic monitoring of the VOC concentration at the inlet and/or outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation is expected to comply with AQMD, State, and Federal Rules and Regulations. All of the permit conditions for the proposed monitoring frequencies for the carbon adsorbers of the No. 2 Oil Water Separators and APA, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC were already incorporated on the initial Title V Facility Permit issued on October 12, 2009. However application nos. 405760 - 405764 were initially submitted on August 20, 2002 to change the frequency of the periodic monitoring of the VOC concentration at the inlet and/or outlet of the carbon adsorbers venting the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation. These applications form the basis to change the conditions regarding the

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frequency of monitoring the VOC concentrations using organic vapor analyzers at the outlet of the carbon adsorbers venting the oil/water separators and the effluent treating plant although the conditions were already included in the initial Title V permit issued on October 12, 2009. However, application no. 405763 includes the addition of carbon adsorber EFS-10 which was initially indicated in A/N 362226 which was submitted in October, 1999. The addition of carbon adsorber EFS-10 to control emissions from the No. 2 forebay qualifies as a modification of the Effluent Treating Plant. There were also minor equipment updates for equipment already installed and operating but missing in the facility permit for the three oil water separators filed under application nos. 405760 -405762.

I recommend conditional permits to operate for the No.2 Oil Water Separator and APC, the No. 3 Oil Water Separator and APC, the No. 4 Oil Water Separator and APC, the Effluent Treating Plant and the Effluent Treating Plant APC of Process 15 for Oil/Water Separation to Chevron Products Company with Facility ID 800030 with the conditions listed in the Conditions Section of this evaluation. This amendment to the Title V Facility Permit due to the frequency change of the periodic monitoring of the VOC concentration at the inlet and/or outlet of the carbon adsorbers venting the emission sources of the water oil separators and the effluent treating plant and the air pollution control system of the effluent treating plant for Process 15 is classified as a Title V Minor Permit Revision since there are no emission changes as a result of the change of permit conditions. The proposed permits will be submitted to EPA for a 45-day review period upon completion of AQMD's evaluation before a final permit is issued. EPA will comment and submit recommendations to AQMD during the 45-day period.

Application no. 405761 includes pertinent communications regarding revision of wastewater system carbon adsorber monitoring conditions during preparation of Chevron Initial Title V permit.