

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT <i>ENGINEERING AND COMPLIANCE</i> APPLICATION PROCESSING AND CALCULATIONS	PAGES	PAGE
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	336128, 339741, 357907, 367625, 368878, 383221, 471236	10/19/12
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	Thomas Lee	

**PERMITS-TO-OPERATE
(PCs to POs)
(Change of Condition)**

COMPANY NAME AND ADDRESS

Edgington Oil Company
2400 E. Artesia Blvd.
Long Beach, 90805

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EQUIPMENT LOCATION

Edgington Oil Company
2400 E. Artesia Blvd.
Long Beach, 90805

Facility: 800264

EQUIPMENT DESCRIPTION

Additions are noted in underlines. Deletions are noted in ~~strikeouts~~.

Section D of Facility Permit, ID# 800264

(The following equipment in P1/S5, P2/S8, P3/S4 and P7, will be moved from Section H to Section D of the facility permit.)

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emission* And Requirements	Conditions
Process 1: DISTILLATION PROCESS					
System 5: CRUDE UNIT HEATER SYSTEM					
HEATER, VACUUM, H-201, NATURAL GAS, 18 MMBTU/HR WITH A/N: 336128 Permit to Construct Issued: 02/13/98 BURNER, THREE (3), NATURAL GAS, JOHN ZINK, MODEL PSMR-16SP WITH VENT INSERTS AND PILOTS, WITH LOW NOX BURNER, 18 MMBTU/HR	D187		NOX: LARGE SOURCE**	CO: 400 PPMV (5) [RULE 1146, 11-17-2000]; CO: 2000 PPMV (5A) [RULE 407, 4-2- 1982]; NOX: 37 PPMV (3) [RULE 2012, 5- 6-2005]; PM: (9) [RULE 404, 2-7- 1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-	D328.1

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				1981]	
PROCESS 2: ASPHALT OXIDIZING					
SYSTEM 8: ASPHALT PROCESS HEATING SYSTEM					
HEATER, SOUTH ASPHALT, H-53, NATURAL GAS, 5 MMBTU/HR WITH A/N 357907 Permit to Construct Issued: 08/19/99 BURNER, NATURAL GAS, GORDON-PIATT, WITH LOW NOX BURNER, STEAM OR WATER INJECTION, 5 MMBTU/HR	D280		NOX: LARGE SOURCE**	CO: 400 PPMV (5) [RULE 1146, 11-17-2000]; CO: 2000 PPMV (5A) [RULE 407, 4-2- 1982]; NOX: 37 PPMV (3) [RULE 2012, 5- 6-2005]; PM: (9) [RULE 404, 2-7- 1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7- 1981]	D332.4 D328.1
PROCESS 3: TREATING/STRIPPING					
SYSTEM 4: REFINERY FUEL GAS TREATING SYSTEM					
KNOCK OUT POT, D453, VENT GAS, HEIGHT: 6 FT; DIAMETER: 5 FT A/N: 367625 471236 Permit to Construct Issued: 10/04/00	D19				S18.1, S31.1 C8.2, C8.3
SCRUBBER, PACKED BED, D455, CAUSTIC, PACKED BED, VENT GAS, HEIGHT: 20 FT; DIAMETER: 6 FT A/N: 367625 471236 Permit to Construct Issued: 10/04/00	D20				C8.2, C8.3
KNOCK OUT POT, D404, HEIGHT: 6 FT; DIAMETER: 3 FT A/N: 367625 471236 Permit to Construct Issued: 10/04/00	D201				
SCRUBBER, PACKED BED, D402, CAUSTIC, PACKED BED, HEIGHT: 20 FT; DIAMETER: 6 FT A/N: 367625 471236 Permit to Construct Issued: 10/04/00	D300				<u>C8.2, C8.4</u>
COMPRESSOR, C-202 A/B, OFF GAS, CENTRIFUGAL TYPE, 7.5 H. P. A/N: 471236 Permit to Construct Issued: 11/15/07	D295				H23.13
<u>FUGITIVE EMISSIONS,</u> <u>MISCELLANEOUS</u>	<u>Dxxx</u>				<u>H23.13</u>

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A/N: 471236					
PROCESS 7: STEAM GENERATION					
BOILER, B-301, NATURAL GAS, FOSTER WHEELER TYPE D, 35 MMBTU/HR WITH A/N: 339741 Permit to Construct Issued: 07/21/98 BURNER, NATURAL GAS, GORDON PIATT WIND BOX LOW NOX BURNER, MODEL WDV-G-25-1FG, 35 MMBTU/HR	D196		NOX: LARGE SOURCE**	CO: 400 PPMV NATURAL GAS (5); CO: 2000 PPMV (5A) [RULE 407, 4-2-1982]; NOX: 37 PPMV (3) [RULE 2012, 5-6-2005]; PM: 0.1 GRAINS/ SCF (5) [RULE 409, 8-7-1981]	D328.1
BOILER/INCINERATOR, WASTE HEAT, B-501, NATURAL GAS, PROCESS GAS, REFINERY GAS, WITH LOW NOX BURNER, 26 MMBTU/HR WITH A/N: 368878 383221 Permit to Construct Issued: 09/27/00 BURNER, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 26 MMBTU/HR	D38		NOX: LARGE SOURCE **; SOX: MAJOR SOURCE <u>PROCESS UNIT - SUPER COMPLIANT</u>	CO: 400 PPMV (5A) [RULE 1146, 11-17-2000] ; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 37 PPMV (3) <u>0.104 LBS/MSCF (1) [RULE 2012, 5-6-2005]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981] ; SOX: 16.9 LBS/MMSCF (1) 0.0299 LBS/BBL (1) [RULE 2011, 5-6-2005]</u>	A63.1, B61.2, C8.1, D28.1, D90.1, D297.1, D323.1, D328.1, H23.3, K40.1

Section D of Facility Permit, ID# 800264

The below permit for H3A/B (D179) in P1/S5 of Section D has been corrected to reflect the changes approved under A/N 309885 in 1996 for SOx Supercompliant status. In 2000, EOC submitted subsequent A/N 372730 to change the classification of D179 from SOx Supercompliant to Compliant under the District's RECLAIM program but later cancelled the application in 2001. However, this change was made in FP by the permit engineer and was not rolled back after A/N 372730 was cancelled. This change should not be viewed as a relaxation of monitoring, recordkeeping or reporting requirements but as an administrative correction. Attachment 1 contains a copy of EOC's request letter to cancel A/N 372730 and District's memo to file.

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emission* And Requirements	Conditions
Process 1: DISTILLATION PROCESS					
System 5: CRUDE UNIT HEATER SYSTEM					
HEATER, VACUUM, H3A/B, NATURAL GAS, WITH LOW NOX BURNER, 20 MMBTU/HR WITH A/N: 309885	D179		NOX: LARGE SOURCE**; SOX: MAJOR SOURCE**	CO: 400 PPMV(5) [RULE 1146, 11-17-2000]; CO: 2000 PPMV (5A) [RULE 407, 4-2-1982]; NOX: 37 PPMV (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; SOX: 16.9 LBS/MMSCF (1) [RULE 2011, 5-6-2005]	D328.1

CONDITIONS

S18.1 All affected devices listed under this process/system shall be used only to receive, recover and/or dispose of vent gases routed from the system(s) or process(es) listed below, in addition to specific devices identified in the "connected to" column:

Crude Units 1 & 2 (Process: 1, System: 1, 2, 3 & 4)

Sour water stripping (Process: 3, System: 2)

Crankcase oil distillation (Process: 8, System: 6)

Naphtha stabilizer (Process: 8, System: 1)

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

[Systems subject to this condition : Process 3, System 4]

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S31.1 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 408951 and 367625:

All valves shall be bellows sealed valves except in the following applications: valves in heavy liquid service, control valves, instrument piping/tubing valves, valves requiring torsional stem motion, situations where valve failure could pose safety hazard (e.g., drain valves with stems in horizontal position), retrofit/special and valves not commercially available (e.g., valves larger than 8", valves larger than 2" that require special alloys or connectors, etc.)

The District shall approve all exceptions to this requirement

The operator shall provide the following information to the District no later than 60 days after initial startup:

(a) Process and instrumentation diagrams (or some other equivalent District-approved diagrams) that identify all valves. Along with the diagrams, the operator shall provide a listing of all valves categorized by location, type, size, accessibility and service; and,

(b) A recalculation of fugitive emissions based on actual fugitive components installed and removed from service. All valves shall be categorized by size and service. The operator shall submit a listing of all non-bellows seal valves categorized by tag number, type, size, body material, service, operating temperature, operating pressure and reason(s) why bellows seal valves were not used.

All non-bellows seal valves shall be inspected monthly using EPA Method 21. The operator may begin quarterly inspections, upon District approval, after two consecutive monthly inspections in which only two percent or less of non-bellows seal valves are found to be leaking above 500 ppmv.

All valves and new major components shall be physically identified in the field with special marking that distinguish the components from non-BACT components. Additionally, all new components shall be identified as BACT components in the records.

The leak rate from non-bellows seal valves and other non-valve fugitive components shall not exceed 500 ppmv. A leak rate greater than 500 ppmv, but less than or equal

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to 1,000 ppmv, shall be repaired within 14 calendar days after detection of the leak.

[**RULE 1173, 5-13-1994**; RULE 1173, 2-6-2009; **RULE 1303(a)(1)-BACT, 5-10-1996**;
 RULE 1303(a)(1)-BACT, 12-6-2002]

[Systems subject to this condition : Process 2, System 7; Process 3, System 4]

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

CONTAMINANT	EMISSIONS LIMIT
SOX	Less than or equal to 13900 LBS IN ANY ONE YEAR

For the purposes of this condition, the limit(s) shall be based on the total combined facility emissions.

[**RULE 2011(c)(4)-Super Compliance, 12-5-2003**; RULE 2011(c)(4) - Super Compliance, 1-7-2005]

[Devices subject to this condition : D38]

B61.2 The operator shall not use fuel gas containing the following specified compounds:

Compound	ppm by volume
H2S greater than	160

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

[**40CFR 60 Subpart J, 6-24-2008**]

[Devices subject to this condition : D38]

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C8.1 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 gauge to accurately indicate the temperature in the firebox of the boiler.

The measuring device or gauge shall be accurate to within plus or minus 50 degrees Fahrenheit. It shall be calibrated once every 12 months.

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

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 470, 5-7-1976**]

[Devices subject to this condition : D38]

C8.2 The operator shall use this equipment in such a manner that the caustic strength being monitored, as indicated below, is not less than 5 percent.

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

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

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR 60 Subpart J, 6-24-2008**]

[Devices subject to this condition: ~~D19~~, D20, D300, C376]

C8.3 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 20 gpm.

The operator shall monitor the flow rate of the scrubbing solution twice a day

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

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; 40CFR 60 Subpart J, 6-24-2008**]

[Devices subject to this condition: ~~D19~~, D20]

C8.4 The operator shall use this equipment in such a manner that the flow rate being monitored, as indicated below, is not less than 15 gpm.

The operator shall monitor the flow rate of the scrubbing solution twice a day

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

[RULE 3004(a)(4) – Periodic Monitoring, 12-12-1997; 40CFR 60 Subpart J, 6-24-2008]

[Devices subject to this condition: D300]

D28.1 The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted on or before July 1, 1996, and annually thereafter, by a qualified source tester in accordance with the protocol approved by the District.

The test shall be conducted to determine the SOX emissions at the outlet.

The test shall be conducted to demonstrate compliance with the Super Compliance provisions of Rules 2011(4)(C) and 2011(4)(D), as amended September 8, 1995.

[RULE 2011(c)(4)-Super Compliance, 12-5-2003; RULE 2011(c)(4) - Super Compliance, 1-7-2005]

D90.1 The operator shall periodically monitor the H2S concentration at the inlet of this device according to the following specifications:

The Alternative Monitoring Plan (AMP) approved by the United States Environmental Protection Agency (USEPA) on May 30, 2006 for the periodic monitoring and reporting of H2S concentration for refinery gas stream to FGCD B-501 (D38).

In addition, the operator shall also comply with all other requirements of the AMP issued by the USEPA on May 30, 2006 for B-501.

[40CFR 60 Subpart A, 6-13-2007; 40CFR 60 Subpart J, 6-24-2008]

[Devices subject to this condition : D38]

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D297.1 This equipment is subject to the Super Compliance provisions of Rule 2011. In order to maintain designation as a Super Compliant facility, the operator shall conduct annual source tests of this equipment to determine the SOx emissions at the outlet. The test shall be conducted to demonstrate compliance with Rule 2011 (c)(4)(C) and 2011 (c)(4)(D), as amended September 8, 1995. The operator shall also provide source tests reports to the District no more than sixty days after the date of the source tests, and the report for the first source test shall be provided no later than 31-mar-2001.

[**RULE 2011, 5-6-2005**]

[Devices subject to this condition : D38]

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

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

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

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

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

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4). All visible emission observation records by operator or a certified smoke reader.

[**RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 401, 3-2-1984**]

[Devices subject to this condition : D38]

D328.1 The operator shall determine compliance with the CO emission limit(s) either: (a) conducting a source test at least once every five years using AQMD Method 100.1 or 10.1; or (b) conducting a test at least annually using a portable analyzer and AQMD-approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with Rule 407 and Rule 1146. The operator shall comply with all general testing, reporting, and recordkeeping requirements in Sections E and K of this permit.

[**RULE 1146, 11-17-2000; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 407, 4-2-1982**]

[Devices subject to this condition: D38, D187, D196, D280]

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

~~[**RULE 1146, 11-17-2000; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 407, 4-2-1982**]~~

~~[Devices subject to this condition: D280]~~

Condition D332.1 has been deleted from the permit. Due to similarities with condition D328.1, device D280 is now tagged to condition D328.1 for streamlining purposes.

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

Contaminant	Rule	Rule/Subpart
H2S	40CFR60, SUBPART	J

[**40CFR 60 Subpart J, 6-24-2008**]

[Devices subject to this condition : D38]

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H23.13 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	40CFR60, SUBPART	GGG
VOC	District Rule	1173

[**RULE 1173, 5-13-1994**; **RULE 1173, 2-6-2009**; **40CFR 63 Subpart GGG, 4-20-2006**]

[Devices subject to this condition: D295, Dxxx]

K40.1 The operator shall provide to the District a source test report in accordance with the following specifications:

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

Emission data shall be expressed in terms of lbs/MM cubic feet.

[**RULE 463, 5-6-2005**]

[Devices subject to this condition: D38]

COMPLIANCE RECORD REVIEW

There are no outstanding compliance issues at Edgington Oil Company as of September 2012. The facility's 5-year compliance history in CLASS data base shows the last NOV, issued in 2010, has been resolved.

Table 1
List of Edgington NOVs Issued Since September 2007

Notice No.	Notice Type	Violation Date	Status	Violation
P53777	NOV	6/19/09	In Compliance	OPERATION OF A PORTABLE AIR COMPRESSOR WITHOUT A VALID PERMIT.

BACKGROUND

Edgington Oil Company (EOC) is a "topping refinery" located in the city of Long Beach that produces asphalt, which is sold as the primary product, and intermediate distillates which are

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sold to other refineries for further processing into high value gasoline and diesel products. The refinery operates in a batch mode where it only operates to fulfill asphalt sales requirement and then shutdown until its inventory of asphalt is depleted. Because the refinery does not crack, hydrotreat or reform any crude oil fractions, it does not have the ability to produce large quantities of refinery/waste/flare gases which require large flare systems common in typical refineries. As such, there is no flare system at ECO but instead a waste heat boiler/incinerator that disposes the waste gases generated from its batch operation. The refinery is identified as a RECLAIM/Title V facility. The initial Title V permit was issued to EOC on October 1, 2009.

In late 1995, EOC submitted change of condition applications 309884 and 309885 to reclassify its waste heat boiler/incinerator B-501 (D38) and vacuum charge heater H3A/B (D179) as 'Process Unit' instead of 'Major Source' under the District RECLAIM program pursuant to Rule 2011(c)(4). Under the provision of subparagraph (c)(4), which became possible only with the amendment of Rule 2011 on 9/8/95, EOC was able to be classified as a 'Supercompliant Facility' because it has demonstrated the facility's SOx emissions was at or below its adjusted 2003 SOx allocation as of their 1994 compliance year. As a Super Compliant Facility, the Major SOx sources at EOC may be reclassified as 'Process Units'. This reclassification was suggested to EOC by the District as a way to avoid the costs of installing CEMS for these two devices, which was determined (by source test at the time) to emit only ~ 5 lbs/day of SOx and deemed not cost effective. The PCs, granting provisional Supercompliant status to D38 and D179, were issued in January 1996. Please see file 309884 for additional background information.

Concurrently, around the same time frame in 1995, EOC also was granted POs 301529, 301530, 301527 to operate three of its combustion devices, heater H-201 (D187), boiler B-301 (D196), heater H-53 (D280), to run exclusively on NG as part of the facility's effort to attain SOx Supercompliant status. In the late 1990s, EOC submitted A/Ns 336128, 339741 and 357907 for D187, D196 and D280, respectively, to install low-NOx burners to comply with Rule 1146 NOx emissions limit. The PCs for D187, D196 and D280 were issued on 2/13/98, 7/21/98 and 8/19/99, respectively. Since the burner modifications for these combustion devices have been completed and source test results have demonstrated compliance with Rule 1146 limits and permit requirements, part of this evaluation is for PO issuance for D187, D196 and D280. A copy of the source test report and email response from EOC on the completion of the low-NOx burner installation are contained in the application folder of 336128, 339741 and 357907 for reference.

In early 2000, EOC submitted applications 367625 and 368878 to secure permits to modify the refinery fuel gas treating system and B-501 to finalize its plan to attain SOx

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Supercompliant status under the District’s Reg XX. The project entailed a change in the routing of the vacuum units’ tail gas from vacuum feed heaters H3A/B (D179) and H-201 (D187) to boiler/incinerator B-501 (D38) for disposal. As part of this project, two new compressors, C-202 A/B (D295), were installed under A/N 367625 to boost the vacuum units’ overhead gas pressure so the gas can be routed to the firebox of D38 for incineration. A/N 368878 was for modification of D38 to receive vacuum unit tail gas along with the other refinery fuel gases in the header system. PCs 367625 and 368878 were issued on 10/4/00 and 9/27/00, respectively. During this time, D38 had provisional supercompliant status under A/N 309884 and final supercompliant status was anticipated after construction is completed and the boiler is source tested. EOC notified the District on 6/7/02 that this project was completed and source tests have resumed to comply with the requirements to attain final supercompliant status for SOx.

In 2001, change of condition A/N 383221 (subsequent to 368878) was submitted by EOC requesting to change the RECLAIM NOx emission factor for D38 from 37 ppmv to 81 ppmv to accurately reflect that it operates as a boiler/incinerator, operating at a minimum temperature of 1400°F (pursuant to permit condition C8.1), and not a boiler/fired heater. Additionally, a change to the RECLAIM SOx emission factor from 16.9 lbs/MMScf to 0.0299 lbs/bbl (of feed) was requested based on initial source test pursuant to Rule 2011 (c)(4)(C). Part of this evaluation will cover the PO issuance for the modification of D38 under A/N 368878 along with the change in NOx/SOx emission factors and will be made under A/N 383221. A/N 368878 will be cancelled.

Later in 2007, A/N 471236 (subsequent to 367625) was submitted by EOC to administratively change the description of compressors C-202 A/B (D295) to be identified as an “off-gas” compressor instead of a “vent gas” compressor. This administrative change was issued on 4/11/08 under PC 471236. Note that when PC 471236 was issued, only D295 was tagged with A/N 471236 instead of the entire permit unit (P3/S4) in Section H of the permit. This anomaly will be corrected under this PO evaluation and the entire permit unit will be tagged to A/N 471236 when it is moved to Section D of the facility permit. A/N 367625 will be cancelled.

PERMIT HISTORY

The permitting history of the affected permit units under this evaluation are summarized in the tables below:

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Permit History for Vacuum Heater H-201 (D187) (A/N 336128)

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
284208		D76449	8/31/93	Change of Ownership. PAATs database shows no previous to this application.
301529		D89536	3/30/95	Modification to operate heater burning NG exclusively in effort to attain SOx Supercomplaint Facility status.
336128	2/13/98	-	-	Modification to install low NOx burner to comply with R1146 emission limit.
372731	cancelled	n/a	n/a	EOC submitted this appl to remove the heater from provisional Supercompliant status on 8/8/00 but later cancelled this request on 4/19/01. A/N 372731 was cancelled.

Permit History for Boiler B-301 (D196) (A/N 339741)

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
165751		M63613	5/26/88	Shown as a change of ownership application in PAATs database without any tracking information and no records in ONBASE.
282428		D74412	6/21/93	Change of ownership.
301530		D89537	3/30/95	Modification to operate heater burning NG exclusively in effort to attain SOx Supercomplaint Facility status.
339741	7/21/98	-	-	Modification to install low NOx burner to comply with R1146 emission limit.

Permit History for Heater H-53 (D280) (A/N 357907)

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
C06535		P69289	1/19/77	No tracking information in PAATs database and no records in ONBASE.
165825		M63674	5/31/88	Shown as a change of ownership application in PAATs database without any tracking information and no records in ONBASE.
301527		D91217	3/30/95	Modification to operate heater burning NG

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				exclusively in effort to attain SOx Supercomplaint Facility status.
357907	8/19/99	-	-	Modification to install low NOx burner to comply with R1146 emission limit.

Permit History for Refinery Fuel Gas Treating System (A/N 367625, 471236)

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
C06547		P68437	11/19/76	No records in ONBASE.
165769		M63628	5/27/88	Shown as a change of ownership application in PAATs database without any tracking information and no records in ONBASE.
282438		D74422	6/21/93	Change of ownership.
367625	10/4/00	-	-	As part of the facility modification to attain final Supercompliant status, two new compressors were added to the refinery fuel gas treating system to boost the vacuum units' overhead gas pressure so the gas can be routed to B-501 for disposal instead of previously sent to H3A/B and H-201.
471236	4/11/08	-	-	Administratively changed equipment description to correctly identify compressors are for 'off-gas', not vent gas.

Note that the tagging of conditions C8.2 and C8.4 to device D300 and the removal of conditions C8.2 and C8.3 from device D19 for this permit unit (P3/S4) are not new requirements, nor are they relaxation of monitoring requirements. These changes are now made to merely correct errors that were made (inadvertently removed C8.2, C8.4 from D300 and added C8.2, C8.3 to D19) by District permit engineer during the issuance of Sec H under revision #19 on June 3, 2011. It was when this permit unit had to be reinstated in Section H of the TV Facility Permit, as explained on Page 2 of the attached District cover letter to EOC dated June 3, 2011 (contained in Appendix A for reference), was when the tagging of these conditions were inadvertently made in error.

Permit History for Boiler/Incinerator B-501 (D38) (A/N 368878, 383221)

Permit to Construct		Permit to Operate		Description of Modification
No.	Issue Date	No.	Issue Date	
165745		M63608	5/26/88	Change of ownership.

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280295		D280295	4/16/93	Change of ownership.
309884	-	D95327	1/2/96	Change of condition to reclassify B-501 as 'process unit' under the provisions of Reg XX Supercompliant status for SO _x . Provisional Supercompliant status was granted.
368878	9/27/00	-	-	As part of the facility modification to attain final Supercompliant status, D38 was modified to receive off gas from the vacuum units instead of previously routing it to H3A/B and H-201 for disposal.
383221	-	-	-	Application submitted to change RECLAIM NO _x emission factor from 37 ppmv to 81 ppmv because factor reflects process heater instead actual operation as an incinerator.

APPLICATION SUMMARY

Table 6 below summarizes the applications and fees submitted by EOC:

Table 6
AQMD Applications and Fee Submitted

A/N	Equipment Description	BCAT/CCAT	Fee Schedule	Type	Status	Fee	Total Fee Paid
336128	Heater	019003	C	Alteration	26	\$1,214.30	\$1,214.30
339741	Boiler	011004	D	Alteration	26	\$2,174.90	\$2,174.00
357907	Heater	019003	C	Alteration	26	\$1,265.80	\$1,265.80
367625	Fuel Gas Treating	354950	D	Alteration	26	\$2,267.10	\$2,267.10
368878	Boiler	011604	D	Alteration	26	\$2,267.10	\$2,267.10
383221	Boiler	011604	D	Change of Condition	20	\$1,890.79	\$1,890.79
471236	Fuel Gas Treating	354950	D	Admin – Change of Condition	26	\$489.20	\$489.20
Total						\$11,569.19	\$11,568.29

PROCESS DESCRIPTION

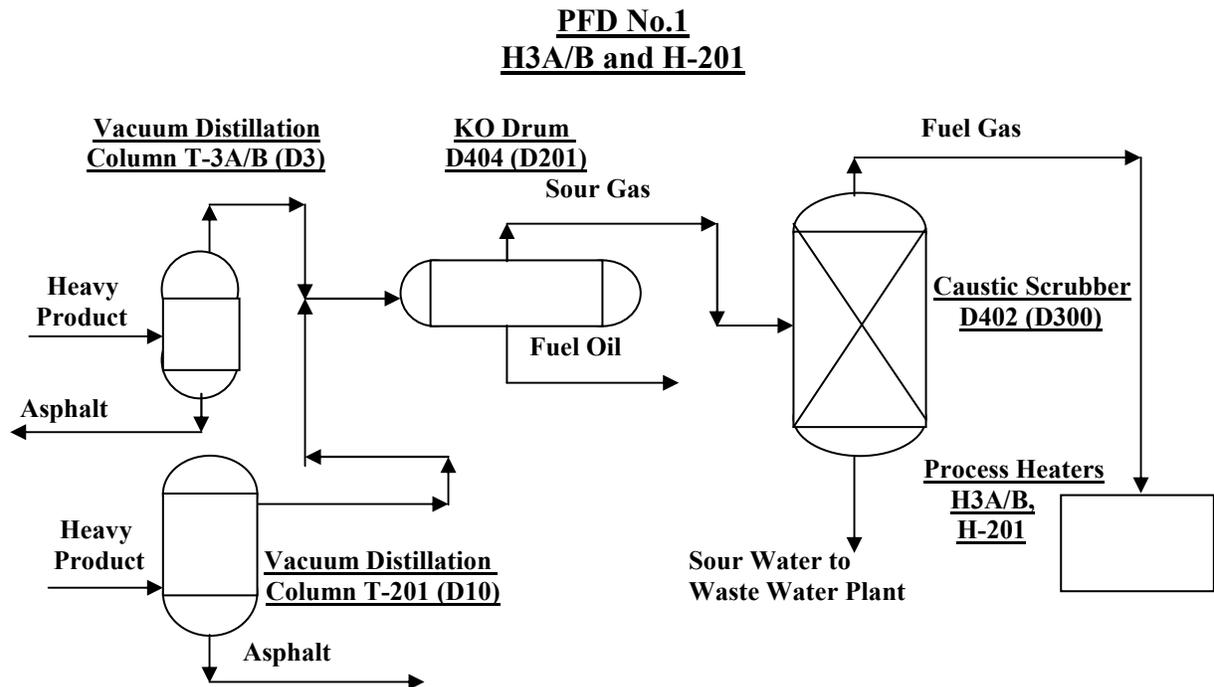
As mentioned, EOC is a topping refinery that produces asphalt from heavy local crude oils. Crude oil is fed to the atmospheric/vacuum units where it is separated into various fractions.

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The overhead liquid fraction is sold to oil refineries for further processing into gasoline, diesel and jet fuel. The heavy bottoms are sent to the refinery's asphalt blowing (oxidizing) stills, where air is used to blow the asphalt at 400-500°F to produce different consistencies of asphalt product for sale to the roofing and road paving industries. The light ends stream from the atmospheric/vacuum units, together with the fumes from the asphalt blowing plant, are now all routed through caustic scrubbers to the firebox of boiler/incinerator B-501 (D38) for disposal. Prior to modification of the facility to attain final SOx Supercompliant status, the offgas from the atmospheric/vacuum units was routed solely to the vacuum tower heaters, H3A/B (D179) and H-201 (D187), for disposal and B-501 (D38) was used to incinerate the gas fumes from the asphalt blowing plant. Post modification, the consolidation of the atmospheric/vacuum units offgas with the asphalt blowing plant fumes has enabled D179 and D187 to operate exclusively on NG, resulting in D38 being the only combustion device in the refinery that runs on Refinery Gas, Process Gas and NG. The simplified pre and post modification PFDs below summarize the changes made by EOC.

Pre-Modification PFD No.1: H3A/B and H-201 for refinery fuel gas treating/disposal:

In addition to the two heaters, caustic scrubber D-402 (D300), knockout drum D-404 (D201) and two ejectors EJ-202A/B (D301) were located on the two vacuum tower overhead systems upstream of the two heaters.

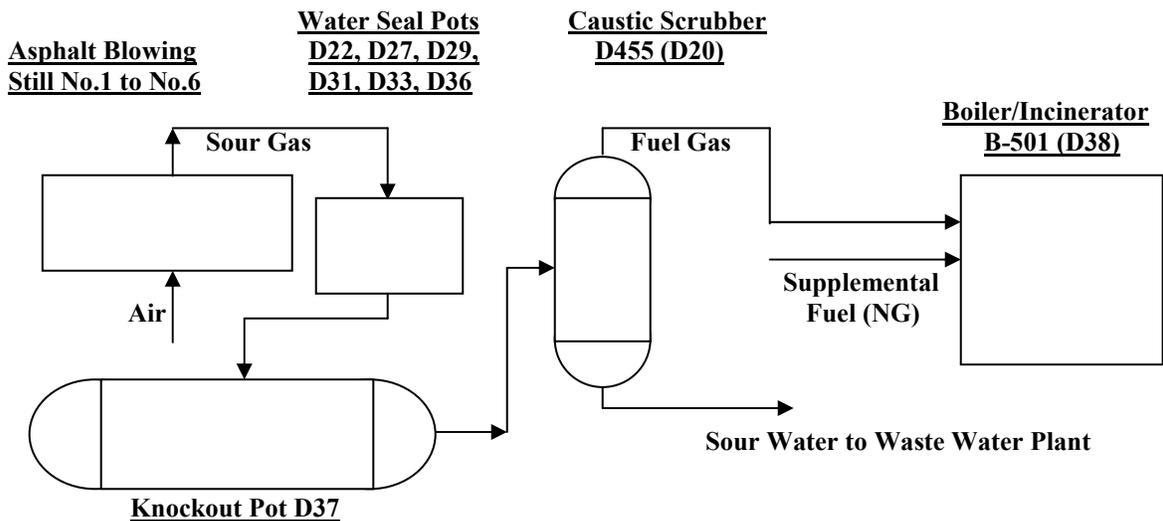


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Pre-Modification PFD No.2 - B-501 for asphalt blowing stills gas treating/disposal:

Although B-501 treated a different type of emissions than process heaters H3A/B and H-201, both systems shared similarities. As with the H3A/B and H-201 system above, a caustic scrubber D-455 (D20) and knockout drum D-453 (D19) are installed upstream of B-501. Both control systems are designed for the removal of hydrogen sulfide with caustic solution to reduce SOx emissions.

PFD No.2
B-501



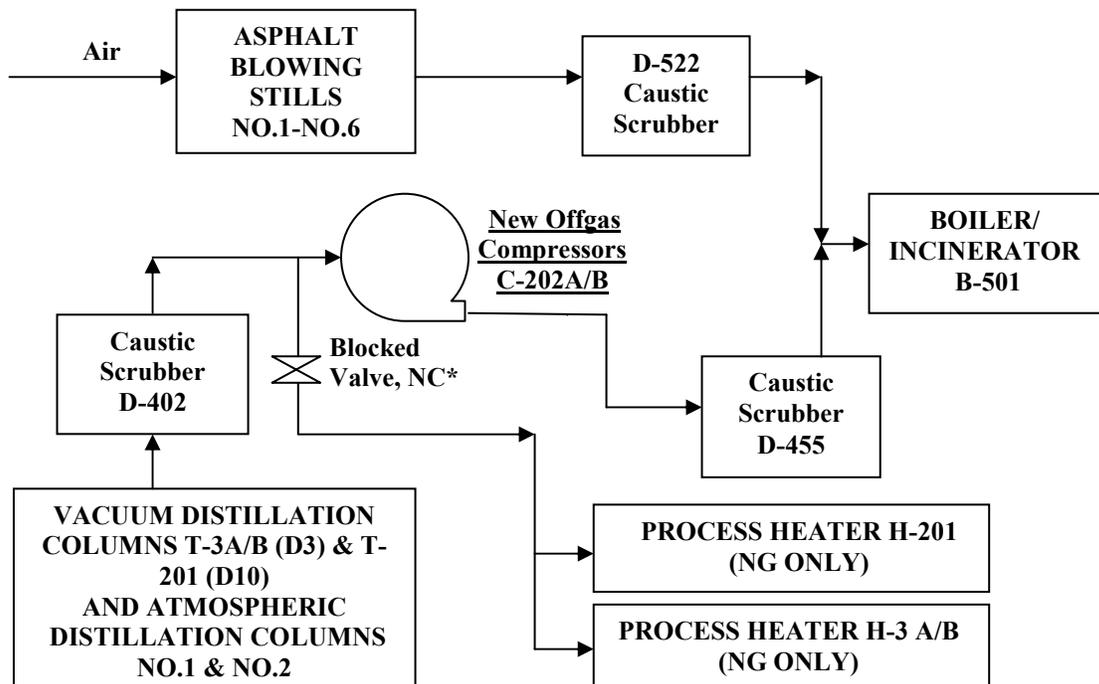
Post Modification PFD: Combined Gas Treating/Disposal System:

In its effort to attain final supercompliant status for SOx, EOC combined the above two systems into one system which allowed H3A/B and H-201 to run exclusively on NG and routed all refinery fuel gas to B-501 for disposal. This was accomplished by adding a new caustic scrubber D-522 (C376) to handle sour gas from the asphalt blowing stills and dedicating existing caustic scrubbers D20 and D300 (configured in series) to treat the offgas from the vacuum/atmospheric units instead of just D300. The reconfiguration resulted in an increase in pressure drop which required the installation of two new compressors to boost the pressure to 5 psig to enable the offgas to reach B-501. The new compressors (each rated at 7.5 HP) were installed under A/N 367625 as discussed. Under normal operations, only one compressor is in use while the other acts as a backup. In the event excess offgas is produced

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from the vacuum units, both units would be in operations. Please see PFD No. 3 below for the combined system.

PFD No. 3
Combined Gas Disposal and Emissions Control System



EMISSIONS

An increase in fugitive emissions resulted from the addition of fugitive components associated with the new compressors C-202 A/B in the refinery fuel gas treating system. In additions, the emissions from H3A/B, H-201 and B-501 also changed with the change in fuel characteristic to these combustion devices as described earlier. However, the overall net emissions change from this entire project is minimal as shown below in Table 9. This PO emissions analysis takes into account the final (as-built) fugitive components actually installed and includes the concurrent emissions change for H3A/B and H-201, which was not accounted for during the PC evaluation.

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A/Ns 367625, 471236 (P3/S4)

The emissions increase from project 367625 was estimated to be 2.4 lbs of ROG per day during the PC stage and are solely from new fugitive components. The emission factors used at the time were based on a memorandum from Jay Chen dated 4-2-99 for fugitive emissions that included BACT and LAER. Table 7 below summarizes the total pre and post project fugitive count and emissions calculation for this project using PC emission factors and also emission factors derived from the Correlation Equation Method. The PC emissions analysis is contained in Attachment 1, 2 and 3 of the PC 367625 evaluation. EOC provided ERC to offset the 1 lb/day increase during the PC stage and the modification complied with BACT.

Table 7 - Fugitive Emissions Summary

A/N	Process/System	Estimated Fugitive Emissions (PC Stage)		Final Fugitive Emissions Count (As-built)		Net Change (PC to PO)
		VOC Increase (lbs/yr)	VOC Increase (lbs/day)	VOC Increase (lbs/yr)	VOC Increase (lbs/day)	VOC (lb/day)
367625	P3/S4	514	1.4	1,620	4.4	3.0
Using Correlation Equation Method*. See Appendix 1 for analysis.		9.09	0.03	580.2	1.59	1.56

*Since the issuance of the PC in 2000, the refinery permitting unit has adopted the Correlation Equation Method for calculating fugitive emissions pursuant to AQMD's Guideline for Fugitive Emissions Calculations (June 2003, Method 2). The emission factors derived from this method is believed to be more accurate than the emissions factors used during the PC stage. Therefore, fugitive emissions for this project were recalculated using this method for NSR update (see Attachment 2). As shown above, the PC emissions should be 0.03 lb/day instead of the 1.4 lbs/day that was entered in NSR during the PC stage. Since EOC has already provided 1 lb/day of ROG ERC during the PC stage using previous emission factors, EOC will only need to provide an additional 1 lb/day of ERC to offset the 2 lb/day (1.56 x 1.2 offset ratio = 1.87 = 2 lb/day) increase in fugitive ROG emissions using the Correlation Equation Method. As explained earlier, the entire permit unit (P3/S4) will be moved to Sec D of the facility permit under A/N 471236 (subsequent administrative PC to PC 67625) and A/N 367625 will be cancelled.

A/Ns 368878, 383221 for B-501 (D38)

After combining the two systems, B-501 will now combust the refinery offgas portion that previously was combusted by H3A/B and H-201 and these two heaters will fire exclusively on

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NG. Emissions calculations were based on the heat input balance provided by EOC during the PC stage and default emissions factors from AEIS, Appendix B.

Basis:

Natural Gas Heating Value = 1050 MMBtu/mmdscf

Refinery Gas Heating Value = 1976 MMBtu/mmdscf

POLLUTANT	EMISSION FACTORS ¹ (lb/MMScf)	
	NG	Refinery Gas
NO _x	45.6	90.1
ROG	7.00	7.00
PM	7.50	21.0
CO	35.0	4.10
SO _x	0.83	16.9

Based on AEIS Appendix B data

HEAT INPUT²

<u>Before Modification</u>	Heat Rating, MMBTU/Hr	% Natural Gas	% Refinery Gas
Heater H-3 A/B	20	95.875	4.125
Heater H-201	18		
Waste Heat B-501	26	79.87	20.13

<u>After Modification</u>	Heater Rating, MMBTU/Hr	% Natural Gas	% Refinery Gas
Heater H-3 A/B	20	100	0
Heater H-201	18		
Boiler/Incinerator B-501	26	79.87	20.13

²Based on heat input balance from EOC. Note that PC emissions for B-501 were based on 75% NG, 25% refinery gas and will be used in this evaluation for consistency.

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Post-Modification Emissions

Amount of refinery gas normally combusted by B-501 (pre-mod):

$$= (26 \text{ MMBTU/Hr}) (.25) / 1976 \text{ MMBTU/mmdscf} = 3,289 \text{ scf/hr}$$

Amount of refinery gas diverted to B-501 from H3A/B and H-201:

$$= (38 \text{ MMBTU/Hr}) (0.04125) / 1976 \text{ MMBTU/mmdscf} = 793.3 \text{ scf/hr}$$

Therefore, amount of refinery gas combusted by B-501 (post-mod):

$$= 3,289 + 793 = 4,802 \text{ scf/hr} = \mathbf{0.0048 \text{ MMScf/hr @ } 1976 \text{ MMBTU/MMScf}}$$

→ Heat input for this refinery gas portion is 9.49 MMBTU/hr

Therefore, the NG usage for B-501:

$$= (26 - 9.49) \text{ MMBTU/Hr} / 1050 \text{ MMBTU/MMScf} = \mathbf{0.0157 \text{ MMScf/hr}}$$

B-501 emissions from NG portion:

$$\text{NO}_x = (0.0157 \text{ MMScf/hr}) (45.6 \text{ lb/MMScf}) = 0.72 \text{ lb/hr}$$

$$\text{ROG} = (0.0157 \text{ MMScf/hr}) (7 \text{ lb/MMScf}) = 0.11 \text{ lb/hr}$$

$$\text{PM} = (0.0157 \text{ MMScf/hr}) (7.5 \text{ lb/MMScf}) = 0.12 \text{ lb/hr}$$

$$\text{CO} = (0.0157 \text{ MMScf/hr}) (35 \text{ lb/MMScf}) = 0.55 \text{ lb/hr}$$

$$\text{SO}_x = (0.0157 \text{ MMScf/hr}) (0.83 \text{ lb/MMScf}) = 0.01 \text{ lb/hr}$$

B-501 emissions from refinery gas portion:

$$\text{NO}_x = (0.0048 \text{ MMScf/hr}) (90.1 \text{ lb/MMScf}) = 0.43 \text{ lb/hr}$$

$$\text{ROG} = (0.0048 \text{ MMScf/hr}) (7 \text{ lb/MMScf}) = 0.03 \text{ lb/hr}$$

$$\text{PM} = (0.0048 \text{ MMScf/hr}) (21 \text{ lb/MMScf}) = 0.10 \text{ lb/hr}$$

$$\text{CO} = (0.0048 \text{ MMScf/hr}) (4.1 \text{ lb/MMScf}) = 0.02 \text{ lb/hr}$$

$$\text{SO}_x = (0.0048 \text{ MMScf/hr}) (16.9 \text{ lb/MMScf}) = 0.08 \text{ lb/hr}$$

B-501 total emissions (post mod):

$$\text{NO}_x = 0.72 + 0.43 = 1.15 \text{ lb/hr}$$

$$\text{ROG} = 0.11 + 0.03 = 0.14 \text{ lb/hr}$$

$$\text{PM} = 0.12 + 0.10 = 0.22 \text{ lb/hr}$$

$$\text{CO} = 0.55 + 0.02 = 0.57 \text{ lb/hr}$$

$$\text{SO}_x = 0.01 + 0.08 = .09 \text{ lb/hr}$$

H3A/B and H-201 emissions from NG operations (post mod):

$$\text{NO}_x = (38 \text{ MMBTU/Hr}) (45.6 \text{ lb/MMScf}) / 1050 \text{ MMBTU/MMScf} = 1.65 \text{ lb/hr}$$

$$\text{ROG} = (38 \text{ MMBTU/Hr}) (7 \text{ lb/MMScf}) / 1050 \text{ MMBTU/MMScf} = 0.25 \text{ lb/hr}$$

$$\text{PM} = (38 \text{ MMBTU/Hr}) (7.5 \text{ lb/MMScf}) / 1050 \text{ MMBTU/MMScf} = 0.27 \text{ lb/hr}$$

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$$\text{CO} = (38 \text{ MMBTU/Hr}) (35 \text{ lb/MMScf}) / 1050 \text{ MMBTU/MMScf} = 1.27 \text{ lb/hr}$$

$$\text{SOx} = (38 \text{ MMBTU/Hr}) (0.83 \text{ lb/MMScf}) / 1050 \text{ MMBTU/MMScf} = 0.008 \text{ lb/hr}$$

Total post-modification emissions from affected combustion devices B-501, H3A/B & H-201:

$$\text{NOx} = 1.15 + 1.65 = 2.8 \text{ lb/hr}$$

$$\text{ROG} = 0.14 + 0.25 = 0.39 \text{ lb/hr}$$

$$\text{PM} = 0.22 + 0.27 = 0.49 \text{ lb/hr}$$

$$\text{CO} = 0.57 + 1.27 = 1.84 \text{ lb/hr}$$

$$\text{SOx} = 0.09 + 0.008 = 0.10 \text{ lb/hr}$$

Pre-Modification Emissions

H3A/B and H-201 emissions from NG & refinery gas operations:

$$\text{NOx} = (38 \text{ MMBTU/Hr}) (0.959) (45.6 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (38 \text{ MMBTU/Hr}) (0.041) (90.1 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 1.65 \text{ lb/hr}$$

$$\text{ROG} = (38 \text{ MMBTU/Hr}) (0.959) (7 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (38 \text{ MMBTU/Hr}) (0.041) (7 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.25 \text{ lb/hr}$$

$$\text{PM} = (38 \text{ MMBTU/Hr}) (0.959) (7.5 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (38 \text{ MMBTU/Hr}) (0.041) (21 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.28 \text{ lb/hr}$$

$$\text{CO} = (38 \text{ MMBTU/Hr}) (0.959) (35 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (38 \text{ MMBTU/Hr}) (0.041) (4.1 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 1.22 \text{ lb/hr}$$

$$\text{SOx} = (38 \text{ MMBTU/Hr}) (0.959) (0.83 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (38 \text{ MMBTU/Hr}) (0.041) (16.9 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.04 \text{ lb/hr}$$

B-501 emissions from NG & refinery gas operations (Recalculated because previous emissions under A/N 309884 used 1000 BTU/Scf instead of 1050 BTU/Scf for HHV of NG):

$$\text{NOx} = (26 \text{ MMBTU/Hr}) (0.75) (45.6 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (26 \text{ MMBTU/Hr}) (0.25) (90.1 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 1.14 \text{ lb/hr}$$

$$\text{ROG} = (26 \text{ MMBTU/Hr}) (0.75) (7 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (26 \text{ MMBTU/Hr}) (0.25) (7 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.15 \text{ lb/hr}$$

$$\text{PM} = (26 \text{ MMBTU/Hr}) (0.75) (7.5 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (26 \text{ MMBTU/Hr}) (0.25) (21 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.21 \text{ lb/hr}$$

$$\text{CO} = (26 \text{ MMBTU/Hr}) (0.75) (35 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (26 \text{ MMBTU/Hr}) (0.25) (4.1 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.66 \text{ lb/hr}$$

$$\text{SOx} = (26 \text{ MMBTU/Hr}) (0.75) (0.83 \text{ lb/MMScf}) / (1050 \text{ MMBTU/MMScf}) + (26 \text{ MMBTU/Hr}) (0.25) (16.9 \text{ lb/MMScf}) / (1976 \text{ MMBTU/MMScf}) = 0.07 \text{ lb/hr}$$

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Total pre-modification emissions from affected combustion devices B-501, H3A/B & H-201:

$$\text{NO}_x = 1.14 + 1.65 = 2.79 \text{ lb/hr}$$

$$\text{ROG} = 0.15 + 0.25 = 0.40 \text{ lb/hr}$$

$$\text{PM} = 0.21 + 0.28 = 0.49 \text{ lb/hr}$$

$$\text{CO} = 0.66 + 1.22 = 1.88 \text{ lb/hr}$$

$$\text{SO}_x = 0.07 + 0.04 = 0.11 \text{ lb/hr}$$

Table 8
Emissions Summary for B-501

Pollutant	Post Modification PC to PO Emissions, A/N 368878				PC Emissions, A/N 368878		Previous Emissions*, A/N 309884	
	NG (lb/hr)	Ref Gas (lb/hr)	Total (lb/hr)	Total (lb/day)	Total (lb/hr)	Total (lb/day)	Total (lb/hr)	Total (lb/day)
NO _x	0.72	0.43	1.15	27.6	1.66	39.8	1.14	27.4
ROG	0.11	0.03	0.14	3.36	0.17	4.1	0.15	3.6
PM	0.12	0.10	0.22	5.28	0.33	7.9	0.21	5.0
CO	0.55	0.02	0.57	13.68	0.54	12.8	0.66	15.8
SO _x	0.01	0.08	0.09	2.16	0.19	4.6	0.07	1.68

*Recalculated emissions using HHV of 1050 BTU/Scf instead of 1000 BTU/Scf for NG portion.

Table 9
Emissions Summary for Project
(Process Heater H3 A/B, H-201 and Boiler B-501)

Pollutant	Post Modification		Pre Modification		Net change (lb/day)
	Total (lb/hr)	Total (lb/day)	Total (lb/hr)	Total (lb/day)	
NO _x	2.80	67.2	2.79	67.0	0.20
ROG	0.39	9.36	0.40	9.60	-0.24
PM	0.49	11.76	0.49	11.76	0
CO	1.84	44.16	1.88	45.12	-0.96
SO _x	0.10	2.4	0.11	2.64	-0.24

A/Ns 336128, 339741, 357907

The installation of low NO_x burners for heaters H-201 (D187), H-53 (D280) and boiler B-301 (D196) under applications 336128, 339741 and 357907, respectively, have been completed in accordance with the approved PCs and post modification source test results are summarized in Table 10 below. Compliance with rule and permit emissions limit for CO and NO_x has been

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verified. The full source test reports are contained in each respective application folder for reference.

Table 10
Source Test Summary for H-201, H-53, B-301

Heater/Boiler ID	Parameter/Condition	Units	Results	Limits	Pass/Fail
H-201	NOx @ 3% O ₂	ppmv	21.16	37	P
	CO @ 3% O ₂	ppmv	9.87	400	P
H-53	NOx @ 3% O ₂	ppmv	30.40	37	P
	CO @ 3% O ₂	ppmv	91.13	400	P
B-301	NOx @ 3% O ₂	ppmv	24.26	37	P
	CO @ 3% O ₂	ppmv	4.14	400	P

EVALUATION:

PART 1 SCAQMD REGULATIONS

Rule 212	Standards for Approving Permits	November 14, 1997
	<p>The subject permit units in this evaluation met all criteria in Rule 212 for PC issuance and were expected to operate without emitting air contaminants in violation of Division 26 of the State H&SC or in violation of AQMD rules and regulations. Public notice was not required per Rule 212 because it was determined in the PC evaluations that:</p> <ul style="list-style-type: none"> • R212(c)(1) – The subject permit units are well beyond 1000 feet from the outer boundary of a school. • R212(c)(2) – The emissions increase was determined to be well below the daily maximum specified in R212(g). • Rule 212(c)(3) – There was no increase in exposure to TAC such that the MICR is greater than 1 in a million. <p>The adjustment in fugitive emissions for the Refinery Fuel Gas Treating System (P3/S4) based on final fugitive counts (using the Correlation Equation Method) resulted in an increase of 2 lb/day of ROG from the PC stage, which is well below the 30 lb/day limit specified in R212(g). The recalculation of B-501 emissions from the rerouting of ‘offgas’ from the vacuum units resulted in a decrease in emissions and the low NOx burner upgrade made to D187, D196 and D280 all resulted in a reduction of NOx emissions. Since the subject permit units</p>	

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have all been modified in accordance with its approved PCs, with no emissions impact beyond R212(g) limits, the POs can be issued pursuant to R212(b).

Rule 401	Visible Emissions	November 9, 2001
	Visible emissions are not expected under normal operating conditions. Compliance is expected.	

Rule 402	Nuisance	May 7, 1976
	Odor problems and nuisance complaints are not expected under normal operating conditions. Compliance is expected.	

Rule 404	Particulate Matter - Concentration	February 7, 1986																									
	<p>The subject heaters, boiler and boiler/incinerator are subject to this rule, which specifies a maximum PM concentration limit for an exhaust gas flow rate calculated as dry gas at standard conditions.</p> <p>The firing rate, fuel type, HHV and PM emissions factor of the fuel used are listed below:</p>																										
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Device</th> <th style="width: 20%;">Rating, (MMBTU/Hr)</th> <th style="width: 20%;">Fuel Type</th> <th style="width: 20%;">HHV, (MMBTU/MMScf)</th> <th style="width: 15%;">PM Emission Factor (lb/MMScf)</th> </tr> </thead> <tbody> <tr> <td>H-201 (D187)</td> <td style="text-align: center;">18</td> <td style="text-align: center;">NG</td> <td style="text-align: center;">1050</td> <td style="text-align: center;">7.5</td> </tr> <tr> <td>H-53 (D280)</td> <td style="text-align: center;">5</td> <td style="text-align: center;">NG</td> <td style="text-align: center;">1050</td> <td style="text-align: center;">7.5</td> </tr> <tr> <td>B-301 (D196)</td> <td style="text-align: center;">35</td> <td style="text-align: center;">NG</td> <td style="text-align: center;">1050</td> <td style="text-align: center;">7.5</td> </tr> <tr> <td>B-501 (38)</td> <td style="text-align: center;">26</td> <td style="text-align: center;">NG/RG*</td> <td style="text-align: center;">1745</td> <td style="text-align: center;">17.6</td> </tr> </tbody> </table>		Device	Rating, (MMBTU/Hr)	Fuel Type	HHV, (MMBTU/MMScf)	PM Emission Factor (lb/MMScf)	H-201 (D187)	18	NG	1050	7.5	H-53 (D280)	5	NG	1050	7.5	B-301 (D196)	35	NG	1050	7.5	B-501 (38)	26	NG/RG*	1745	17.6
Device	Rating, (MMBTU/Hr)	Fuel Type	HHV, (MMBTU/MMScf)	PM Emission Factor (lb/MMScf)																							
H-201 (D187)	18	NG	1050	7.5																							
H-53 (D280)	5	NG	1050	7.5																							
B-301 (D196)	35	NG	1050	7.5																							
B-501 (38)	26	NG/RG*	1745	17.6																							
	<p>*25% NG (1050 BTU/Scf, 7.5 lb/MMScf PM), 75% RG (1976 BTU/Scf, 21 lb/MMScf PM).</p>																										
	<p>Based on these specifications, the maximum PM concentration for each device are calculated for comparison to the limits specified in Table 404a of this rule and the results are shown in Table 11 below. As shown, compliance with Rule 404 is expected for the subject combustion devices.</p>																										

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Table 11
Rule 404 Analysis Summary

Device	Stack Temp*, Avg °F	Calculated Exhaust Rate, (dscfm)	Rule 404 PM Concentrated Limit (grains/dscf)	Calculated PM Concentration (grains/dscf)
D187	440	5,186	0.101	0.003
D280	750	1,942	0.145	0.002
D196	235	7,809	0.086	0.004
D38	320	9,515	0.081	0.005

**Based on source test data.*

The following formulas and flue gas factor (F-factor) were used:

$$F\text{-factor dry} = 8710 \frac{\text{dscf}}{\text{MMBTU}} \times \frac{\text{Avg Stack temp, } ^\circ\text{R}}{\text{Standard Temp, } ^\circ\text{R}}$$

$$PM \text{ Rate, grain/hr} = \frac{(\text{Rating, MMBTU/Hr})(PM \text{ Emission factor, lb/MMScf})(7,000 \frac{\text{grain}}{\text{lb}})}{(\text{HHV of fuel, MMBTU/MMSScf})}$$

$$Exhaust \text{ Rate @ } 3\% \text{ O}_2, \text{ dscf/hr} = (\text{Rating, MMBTU/Hr}) (F\text{-factor, dscf/MMBTU}) (20.9/20.9-3)$$

$$PM \text{ Concentration, grain/dscf} = \frac{(PM \text{ Rate, grain/hr})}{(Exhaust \text{ Rate, dscf/hr})}$$

Rule 407	Liquid and Gaseous Air Contaminants	April 2, 1982															
<p>This rule limits carbon monoxide (CO) emissions to less than or equal to 2000 ppmv and gas/liquid sulfur compound emissions, calculated as SO₂, to 500 ppmv. Pursuant to Rule 2001(j), Table 2, EOC does not need to comply with sulfur emissions limit of Rule 407 since it is a RECLAIM facility. The following table summarizes the CO emissions from the subject combustion sources based on the most recent source test submitted by EOC. The source test reports are contained in each respectively application folder for reference.</p>																	
	<table border="1" style="width: 100%;"> <thead> <tr> <th>Device</th> <th>Test Date</th> <th>CO concentration (ppmv @ 3% O₂)</th> </tr> </thead> <tbody> <tr> <td>D187</td> <td>1/29/07</td> <td>9.87</td> </tr> <tr> <td>D280</td> <td>12/31/08</td> <td>91.1</td> </tr> <tr> <td>D196</td> <td>1/30/06</td> <td>4.14</td> </tr> <tr> <td>D38</td> <td>8/13/02</td> <td>232</td> </tr> </tbody> </table>	Device	Test Date	CO concentration (ppmv @ 3% O ₂)	D187	1/29/07	9.87	D280	12/31/08	91.1	D196	1/30/06	4.14	D38	8/13/02	232	
Device	Test Date	CO concentration (ppmv @ 3% O ₂)															
D187	1/29/07	9.87															
D280	12/31/08	91.1															
D196	1/30/06	4.14															
D38	8/13/02	232															

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Rule 407 Compliance is expected.

Rule 409	Combustion Contaminants	August 7, 1981										
	<p>The combustion devices are subject to District Rule 409 which specifies a PM emission limit of 0.1 grains/scf corrected to 12% CO₂. The calculated PM emission rates are calculated as follow:</p> $PM, \text{ grain/scf} = \frac{(PM \text{ emission factor}, \frac{lb}{MMScf})(7000 \frac{grain}{lb})}{(HHV, \frac{MMBTU}{MMScf})(F\text{-factor}, \frac{SCF}{MMBTU})} \times \frac{12}{\% CO_2}$ $F\text{-factor} = 8710 \frac{dscf}{MMBTU}$ <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Device</th> <th>Calculated PM Emissions, grain/scf</th> </tr> </thead> <tbody> <tr> <td>D187</td> <td>0.006</td> </tr> <tr> <td>D280</td> <td>0.006</td> </tr> <tr> <td>D196</td> <td>0.006</td> </tr> <tr> <td>D38</td> <td>0.008</td> </tr> </tbody> </table> <p style="text-align: center;">Compliance is expected.</p>		Device	Calculated PM Emissions, grain/scf	D187	0.006	D280	0.006	D196	0.006	D38	0.008
Device	Calculated PM Emissions, grain/scf											
D187	0.006											
D280	0.006											
D196	0.006											
D38	0.008											

Rule 431.1	Sulfur Content of Gaseous Fuels	June 12, 1998
	<p>The subject devices are RECLAIM sources for SO_x that are subject to Rule 2001. In accordance with Rule 2001(j), the requirement(s) pertaining to SO_x emissions for the rules listed in Table 2 of Rule 2001(j) are not applicable to RECLAIM sources. Rule 431.1 is one of the listed rules. Therefore, this rule does not apply to the subject heaters, boilers and boiler/incinerator.</p>	

Rule 466	Pumps and Compressors	February 6, 2009
	<p>The new compressors (C-202A/B) under this evaluation are subject to District Rule 1173. As such, they are exempt from the requirements of Rule 466 by the provision in (l)(3) of Rule 1173.</p>	

Rule 466.1	Valves and Flanges	March 16, 1984
	<p>Fugitive components such as valves and flanges are subject to District Rule 1173. As such, they are exempt from the requirements of Rule 466.1 by the provision in (l)(3) of Rule 1173.</p>	

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REG IX NSPS

40CFR 60, Subpart J	<p>Standard of Performance for Petroleum Refineries</p> <p>With the exception of B-501, the other combustion devices (H-201, H-53, B-301) under this evaluation are not subject to this subpart pursuant to §60.101(d) because they combust NG exclusively.</p> <p>In regards to B-501, conditions B61.2, D90.1 and H23.3 have been imposed to ensure compliance with Subpart J is met. Note that in lieu of complying with the requirements of §60.105(a)(3) to install CEMS to continuously monitor and record the SO₂ emissions at the outlet or H₂S content of the fuel gas at the inlet to ensure it meets the H₂S limit of 0.10 gr/dscf in the fuel gas being combusted, EOC has obtained an approved Alternative Monitoring Plan (AMP) from the USEPA pursuant to §60.105(b) on May 30, 2006. Condition D90.1 has been tagged to B-301 to ensure this Subpart J requirement is met. Attachment 3 contains a copy of the approved AMP by EPA.</p>
40CFR 60, Subpart GGG	<p>Standard of Performance for Equipment Leaks of VOC in Petroleum Refineries</p> <p>The modification to the refinery fuel gas treating system (P3/S4) with the addition of two new compressors, C-202A/B (D295), was designed and constructed in accordance with this NSPS. EOC has and will continue to follow the inspection, leak reporting and repair protocols described in this regulation as required by the tagging of condition H23.13 to D295 and Dxxx. Note that Dxxx is a new miscellaneous fugitive emissions device that was added to account for all the fugitive components that are part of this permit unit. Compliance is expected.</p>

REG X NESHP

40CFR 63, Subpart CC	<p>National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries</p> <p>EOC has provided data to the District to show that the Long Beach facility is not a 'major' HAP source, which is defined as a source emitting 10 tons per year of any single HAP or 25 tons per year of all HAPs combined. As an 'area' HAP source emitting less than these thresholds, the facility is not subject to any major source Maximum Achievable Control Technology (MACT) Standards, including 40CFR 63, Subpart CC, except for the reporting and recordkeeping requirements of 40CFR 61, Subpart FF – National Emission Standard for Benzene Waste Operation. The Subpart FF requirements have been incorporated into the Title V permit as facility condition F16.1. Compliance is expected.</p>
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40CFR 63, Subpart A⁷	National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing This rule limits PAH emissions to 0.003 lb/ton or PM emissions to 1.2 lb/ton of asphalt charged to the blowing stills at EOC. Pursuant to Table 4 of this subpart, ECO is utilizing B-501 to comply with this requirement and has indicated source test will be performed to demonstrate compliance as soon as asphalt blowing operations are resumed. According to an email from EOC dated 10/19/12 (contained in application folder), the facility has not blown asphalt since the compliance date of 12/2/10. The upcoming source test will verify whether the current combustion zone temperature requirement of 1400°F set forth in condition C8.1 is sufficient to satisfy the monitoring requirement of § 63.11563. Compliance is expected.
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REG XI

Rule 1109	Emissions of Oxides of Nitrogen from Boilers and Process Heaters in Petroleum Refineries The subject heaters and boilers are RECLAIM sources for NOx and subject to Rule 2001. In accordance with Rule 2001(j), the requirement(s) pertaining to NOx emissions for the rules listed in Table 1 of Rule 2001(j) are not applicable to RECLAIM sources. Rule 1109 is one of the listed rules. Therefore, this rule does not apply.	August 5, 1988
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Rule 1146	Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters Paragraph (c) Subparagraphs (1) to (3): The subject combustion devices under this evaluation have rated heat input capacities between 5 and 40 MMBtu/hr. However, as RECLAIM sources that are also subject to Rule 2001, the requirements of these paragraphs do not apply to these sources for NOx pursuant to Table 1 of Rule 2001(j). Paragraph (c) Subparagraph (4) : This rule limits carbon monoxide emissions from the heaters to less than or equal to 400 ppmv. Compliance with this 400 ppmv CO limit has been demonstrated by source tests as shown under Rule 407 discussion. Continued compliance is expected.	September 5, 2008
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Rule 1173	Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants The new compressors and associated fugitive components (valves, flanges)	February 6, 2009
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installed under A/N 367625 for modification of the refinery fuel gas treating system complied with BACT and the requirements of this rule. EOC will continue to follow the inspection, leak reporting and repair protocols described in this regulation as referenced by system condition S31.1. Additionally, new miscellaneous fugitive emissions device, Dxxx, has been added to this permit unit and tagged with condition H23.13 for Rule 1173 compliance. Continued compliance is expected.

Reg XIII NSR

Rule 1301	General	December 7, 1995
Paragraph (b) Applicability	<p>The combustion devices under this evaluation are RECLAIM sources for SOx and NOx that are subject to Rule 2001. In accordance with Rule 2001(j), the requirement(s) pertaining to SOx or NOx for the rules listed in Tables 1 and 2 are not applicable to RECLAIM sources. Reg XIII is one of the listed rules. Therefore, the requirements specified by this regulation apply to criteria pollutants other than SOx and NOx.</p> <p><u>A/N 368878, 383221 (for B-501)</u> During the PC stage for B-501 under A/N 368878 [see PC evaluation dated 9-20-00 by ET01 in application folder], it was calculated an increase in ROG, CO and PM emissions was expected but the increases were exempt from the offsets and modeling requirements of Reg XIII pursuant to Rule 1304(c)(4). However, during this PC to PO evaluation, it was discovered that the baseline emissions calculation for A/N 368878 (from previous A/N 309884) used a different HHV value (1000 instead of 1050 BTU/Scf) for NG. Hence, a recalculation of the emissions impact from this project was conducted along with the concurrent emissions change for H3A/B and H-201, which was not accounted for during the PC evaluation. As shown in Table 8 on page 24 of this evaluation, there is no increase in ROG, CO and PM emissions as a result of the modification to B-501. Note that the increase of 0.28 lb/day in PM from ‘baseline’ (previous A/N 309884) does not constitute a true emissions increase pursuant to Reg XIII (because it is less than 1.0 lb/day). Hence, no offsets and modeling are required. Table 9 on page 24 shows the overall emissions impact from the three affected device for this entire project (of rerouting the offgas to B-501 from H3A/B and H-201) to be negligible.</p> <p><u>A/N 336128, 339741, 357907 (for H-201, B-301, H-53, respectively)</u> As RECLAIM sources under Rule 2001, only criteria pollutants ROG, CO and</p>	

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PM emissions are subject to Reg XIII. Nonetheless, this regulation is not applicable because the modification to retrofit the headers and boiler with BARCT (low NOx burner) resulted in an overall emissions decrease for NOx and no change in emissions for SOx, ROG, CO and PM. Therefore, Reg XIII requirements (BACT, offset and modeling) for ROG, CO and PM are not applicable.

A/N 367625, 471236 (for C-202A/B in P3/S4)

EOC complied with the requirements of Reg XIII by installing all bellow seal valves (BACT) for this project and providing ERC to offset the ROG fugitive emissions increase during the PC stage (see PC 367625 evaluation in application folder). Post modification emissions from the addition of C-202A/B in P3/S4 resulted in a 1.56 lb/day increase from the PC stage as shown in Table 7 on page 20 of this evaluation. Using a 1.2 offset ratio pursuant to Rule 1303(b)(2)(A), the facility needs to provide 2 lb/day of EOC to offset this increase in ROG emissions for PO issuance. PO emissions were based on final fugitive component count by EOC.

As discussed in the ‘Emissions’ section of this evaluation, the change in methodology in calculating emissions (using the Correlation Equation Method) resulted in ROG emissions of 0.02 lb/day instead of 1.4 lb/day in the PC stage. EOC only needs to provide 1 lb/day of ROG ERC now since they already provided 1 lb/day of ROG ERC during the PC stage.

Reg XIV

Rule 1401	NSR of Toxic Air Contaminants	September 10, 2010
	<p>There is no increase in ROG emissions for the heaters, boiler and boiler/incinerator from PC to PO under this evaluation. However, there is a small increase in ROG emissions of 0.19 lb/day from the PC stage for the addition of two new compressors for the refinery fuel gas treating system under A/N 367625. This is because post modification emissions, based on final fugitive component count from EOC, is 1.59 lbs/day (using Correlation Equation Method) and the PC emissions was calculated as 1.4 lb/day (using Jay Chen emission factors).</p> <p>The 0.19 lb/hr increase in ROG is expected to increase TAC emissions proportionately. Therefore, post modification TAC emission can be estimated from the TAC emissions calculated during the PC stage, which was 0.0044 lb/yr for Benzene (based on 3 ppm concentration in the offgas stream from applicant’s</p>	

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	<p>lab analysis). The following calculations show post modification TAC emissions to be 0.005 lb/hr, which is significantly less than the most conservative Tier 1 Screening Emissions Level of 1.14 lb/yr for Benzene at 25 meters. The Tier 1 screening levels can be found in Table 1A of Attachment F, Version 6.0 (for applications deemed complete date of 8/13/99 thru 8/17/00) of Rule 1401's Risk Assessment Procedures. Compliance is expected and no further screening risk assessment is necessary.</p> <p style="text-align: center;"> $\% \text{ Increase in TAC (Benzene) emissions} = \frac{0.19 \text{ lb/hr}}{1.4 \text{ lb/hr}} = 13.5\%$ </p> <p>Post modification TAC (Benzene) emissions = 1.135 x 0.0044 lb/yr = 0.005 lb/yr</p>
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Reg XX

Rule 2005	NSR for RECLAIM	June 3, 2011
	<p>EOC is designated as a NOx and SOx RECLAIM facility. Since there is no increase in NOx and SOx emissions for B-501, H3A/B and H-201 as shown in 'Emissions' section of this evaluation and no increase for H-53, B-301 and H-201 from the modification to retrofit with low NOx burners, the provisions of this rule do not apply. Note that the project to install C-202A/B under A/N 367625 and subsequent admin A/N 471236 have no bearing on NOx and SOx emissions.</p>	

Rule 2011	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions	May 6, 2005
Paragraph (c)	<p>Subparagraph (4): This subparagraph of the rule allows facilities who meet specific requirements to attain approval from the District for SOx supercompliant status. Such classification would enable its 'major source' to be redesignated as 'process unit' for SOx pursuant to Rule 2011(c)(4)(A)(i). This change in designation would exempt the source from having to install CEMS to monitor SOx emissions.</p> <p><u>Background Recap</u> As explained in the background section of this evaluation, EOC filed for this supercompliant status by submitting an application in 1995 for H3A/B and B-501. Both were granted provisional supercompliant status at the time the applications were approved. It was expected that after modification of B-501 (to receive the vacuum offgas which previously was sent to H3A/B and H-201 for disposal under subsequent A/N 368878) was completed and source tested, final</p>	

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supercompliant status would be granted. While final supercompliant status was still pending, EOC submitted subsequent A/N 383221 to change the NOx RECLAIM emissions limit listed in the permit from 37 ppm to 81 ppm. This request was made because the 37 ppm limit listed in the permit does not reflect the operation of the unit as an incinerator but that of a process heater . Please see ECO letter submitted with A/N 383221 dated March 2, 2001 and follow-up letter from ECO dated September 13, 2004 in Attachment 3.

The following subsections give the applicable requirements that must be met by ECO to gain final approval from the District for Supercompliant status of B-501.

Subsection (A)(i): This subsection requires a facility's reported SOx emissions to be already at or below its 2003 SOx allocation as of compliance year 1994 and an application be submitted to the District for Supercompliant status no later than December 2, 1996. As summarized below, ECO's SOx APEP emissions are below its 2003 SOx allocation (13,900 lbs/yr) as of 1994 and A/Ns 309884 and 309885 were submitted by EOC on December 13, 1995 for B-501 and H3A/B.

Compliance Year	EOC's SOx APEP Emissions*, (lbs/yr)	SOx Emissions RTC Allocations, (lbs/yr)
1994	100	18,257
1995	783	18,257
1996	745	18,257
1997	1,091	18,257
1998	1,773	18,257
1999	3,737	18,257
2000	4,103	18,257
2001	13,568	16,805
2002	8,871	15,352
2003	7,209	13,900
2004	13,473	13,900
2005	13,463	13,900
2006	7,258	13,900
2007	5,787	13,900
2008	4,360	13,900
2009	1,107	13,900
2010	161	13,900
2011	6	13,900

**Data provided by District's RECLAIM Admin Team (Don Nguyen and Susan Tsai). Information is contained in A/N 383211 folder for reference.*

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	<p>Compliance of this subsection for Supercompliant status is met.</p> <p>Subsection (A)(ii): Pursuant to the requirements of this subsection, EOC conducted source tests in accordance to subsection (C) of this rule to establish an equipment specific emission rate for B-501. An emission rate of 0.0299 lbs SOx/bbl asphalt feed has been established and will be incorporated in the permit as part of the PO issuance for B-501 under A/N 383221. The District's evaluation of the source tests conducted from 1998 through 2003 to establish this equipment specific emission rate is contained in Attachment 4 for reference. Additionally, the facility's total annual SOx emissions as reported under APEP has not exceeded its adjusted compliance year 2003 Allocation of 13,900 lbs/yr as shown above.</p> <p>Compliance with this subsection has been met and final Supercompliant status for B-501 is recommended.</p> <p>Note that subsequently in October 2005, EOC requested the emission rate be adjusted to 0.01 lbs SOx/bbl feed to reflect the addition of a new caustic scrubber upstream of B-501 to treat the AB product fumes for H2S removal in an effort to further reduce SOx emissions. Source test data was provided to STE but no official approval has been made yet. In the event EOC is granted approval of a new emission rate for B-501 by District STE, a permit application will need to be submitted to incorporate this change in the permit.</p> <p>Subsection (D): The requirement to conduct minimally annual source test to maintain SOx Supercomplaint status has been incorporated in the permit by the tagging of condition D297.1 to B-501. Compliance is expected.</p>
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Rule 2012	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions	May 6, 2005
Paragraph (d)	Subparagraph (2): B-501 is classified as a NOx large source in EOC's Title V facility permit. The provision of this subparagraph allows facilities of large NOx sources to use different approved alternatives to monitor and report NOx emissions. The current approved method listed in EOC's permit for B-501 is a stack NOx concentration limit of 37 ppm, which is typical for a process heater/boiler as referenced in Rule 2002, Table 1.	
Paragraph (f)	Subparagraph (3): Through the submittal of application A/N 383221, EOC has requested the stack NOx concentration limit be raised to 81 ppmv to more accurately reflect the operation of B-501 as an incinerator instead of a boiler. As noted in the Background section of this evaluation, EOC does not have a flare	

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system at its facility to combust the vent gases from its operation but instead route the gases to the firebox of B-501 for disposal. Hence, B-501 operates at a much higher temperature (> 1400°F) as compared to process heaters/boilers and NOx emissions is therefore expected to be much higher. As truly an incinerator and not a ‘boiler’, EOC proposes to reclassify the unit as such and use the RECLAIM emission factor of 0.104 lbs NOx/MScf (equivalent to ~81 ppmv concentration limit) fuel gas consumed in the unit as referenced in Rule 2002 for incinerators. Attachment 5 is a copy of Table 1 from Rule 2002 for reference.

As required under subparagraph (3) of Rule 2012 (f), EOC has conducted source test to demonstrate the proposed emission factor of 0.104 lbs NOx/MScf is reliable, accurate and representative for the purpose of calculating NOx emissions. Attachment 6 contains the source test summary for the test conducted on March 27, 2001. The full report is contained in application folder 383221 for reference.

Compliance is expected and reclassification of B-501 as ‘incinerator’ with NOx RECLAIM emission factor of 0.104 lbs NOx/MScf fuel gas consumed is recommended.

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Rule 3002	Requirements	November 14, 1997
	<p>EOC has been designated as a Title V facility. The initial Title V permit was issued on October 1, 2009.</p> <p>Per AQMD guidelines for Title V permits, the redesignation of B-501 as a Process Unit under the District’s RECLAIM program with new SOx emission factor (pursuant to Rule 2011(c)(4)(A)(ii)(C) discussed above) and new emissions factor for NOx (from the reclassification of B-501 as an incinerator) constitute a Minor Title V permit revision. Therefore, a copy of the proposed permit and engineering evaluation will be submitted to EPA for review. Please note that the RECLAIM redesignation for B-501 is not a relaxation of monitoring/reporting requirements since B-501 was already granted provisional Supercompliant status (without having to install CEMS) and the current permit action is merely to grant final Supercompliant status after the facility has demonstrated compliance with Rule 2011(c). Continued compliance is expected.</p> <p>The issuance of PO (from PC) for the two compressors in the refinery fuel gas</p>	

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treating system and low NOx burner installation for D187, D196 and D280 qualifies as Administrative Revision as they meet the definition pursuant to Rule 3000(b)(1)(D), which includes the issuance of a final PO for equipment previously issued a PC, with no change in permit terms and conditions. For administrative revisions, AQMD does not need to notify the public nor the EPA prior to permit issuance. However, AQMD is required to submit a copy of the permit revision to EPA within five (5) days of issuance. Compliance is expected.

STATE REGULATIONS

CEQA	California Environmental Quality Act
	CEQA requires that the environmental impact of proposed projects be evaluated and that feasible measures to reduce, avoid or eliminate identified significant adverse impacts be considered. The CEQA Applicability Form (400-CEQA) submitted by the applicant indicated the projects under this evaluation do not have any impacts which would trigger the preparation of a CEQA document. Hence, CEQA analyses are not required.

CONCLUSION

Based on this evaluation, the subject permit units under this evaluation are expected to operate in compliance with all AQMD, State and Federal Rules and Regulations. Therefore, Permits to Operate are recommended with the conditions listed on pages 4 through 11 of this evaluation. The following is a summary of the permit actions under this evaluation:

A/N	Equipment Description	Device ID	Recommended Action
*	Title V Permit Revision	N/A	Approve
336128	Heater, Vacuum, H-201, NG, 18 MMBTU/HR, with Low NOx burner	D187	Approve PO
339741	Boiler, B-301, NG, Foster Wheeler Type D, 35 MMBTU/HR, with Low NOx burner	D196	Approve PO
357907	Heater, South Asphalt, H-53, NG, 5 MMBTU/HR with low NOx burner	D280	Approve PO
367625	Refinery Fuel Gas Treating System	All	Cancel and incorporated changes under A/N 471236
368878	Boiler, Waste Heat, B-501, NG, PG, RG, 26 MMBTU/HR with low NOx burner	D38	Cancel and incorporated changes under A/N 383221
383221	Boiler/Incinerator, Waste Heat, B-501, NG, PG, RG, 26 MMBTU/HR with low NOx burner	D38	Approved PO with changes from A/N 368878
471236	Refinery Fuel Gas Treating System	All	Approve PO with changes from A/N 367625

*Pending submittal by EOC.