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PERMIT TO OPERATE

SUMMARY: Evaluation for the conversion of a Permit to Construct (issued 7/18/07) to a Permit to Operate for the Delayed Coking Unit (P2S1). The permit modifications for A/N 464152 include the addition of a new knockout pot; correcting the dimensions listed for two vessels; removing pumps and a heat exchanger from the permit; and making internal modifications to existing devices. Changes to the PC include moving a process tank from P10S1 to P2S1, and the replacement of one condition. Recent changes to 40CFR60 Subpart GGG and GGGa require that Condition H23.22 be replaced with a new Condition H23.36 to reference Subpart GGGa rather than Subpart GGG. Four lb/day of VOC emission offsets were provided with the PC, but the final emissions estimate requires only three lb/day of offsets.

COMPANY INFORMATION

Company Name: ConocoPhillips Company, Facility ID No. 800362
Mailing Address: 1520 E. Sepulveda Blvd, Carson, CA 90745
Equipment Location: 1520 E. Sepulveda Blvd, Carson, CA 90745
Contact Person: Marshall G. Waller, (310) 952-6240

EQUIPMENT DESCRIPTION

Table 1 shows the proposed Section D permit description for Process 2, System 1. Additions to the description are noted in underlines and deletions are noted in ~~strikeouts~~.

Table 1. Permit Equipment Description

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 2 : COKING AND RESIDUAL CONDITIONING					P13.2
System 1 : DELAYED COKING UNIT					S13.5, S15.4, S31.3
FRACTIONATOR, MAIN, CK-1, HEIGHT: 149 FT; DIAMETER: 15 FT 6 IN A/N: 464152 Permit to Construct Issued: 07/18/07	D80				



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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
COLUMN, STRIPPER, CK-2, EXTRA HEAVY GAS OIL, HEIGHT: 25 FT 6 IN; DIAMETER: 3 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D81				
COLUMN, STRIPPER, CK-3, HEAVY GAS OIL, HEIGHT: 43 FT; DIAMETER: 5 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D82				
COLUMN, STRIPPER, CK-4, LIGHT GAS OIL, HEIGHT: 43 FT; DIAMETER: 4 FT 6 IN A/N: 464152 Permit to Construct Issued: 07/18/07	D83				
ACCUMULATOR, V-2247, MAIN FRACTIONATOR OVERHEAD, HEIGHT: 22 FT; DIAMETER: 12 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D84				
ACCUMULATOR, V-2248, MAIN FRACTIONATOR OVERHEAD, HEIGHT: 20 FT; DIAMETER: 9 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D85				
<u>STORAGE TANK, FIXED ROOF, NO. 2230, AMMONIUM POLYSULFIDE, 20000 GALS; DIAMETER: 15 FT; HEIGHT: 18 FT</u> A/N: 325622 464152	<u>D86</u>				<u>E134.1</u>
DRUM, COKE, V-2236, HEIGHT: 75 FT; DIAMETER: 26 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D796			PM: (9) [RULE 405, 2-7-1986]	D323.2
DRUM, COKE, V-2237, HEIGHT: 75 FT; DIAMETER: 26 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D797			PM: (9) [RULE 405, 2-7-1986]	D323.2
DRUM, COKE, V-2238, HEIGHT: 75 FT; DIAMETER: 26 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D798			PM: (9) [RULE 405, 2-7-1986]	D323.2
DRUM, COKE, V-2239, HEIGHT: 75 FT; DIAMETER: 26 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D799			PM: (9) [RULE 405, 2-7-1986]	D323.2
ABSORBER, RECTIFIED, CK-5, HEIGHT: 159 FT 6 IN; DIAMETER: 7 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D95				
COLUMN, SPONGE, CK-6, HEIGHT: 42 FT 6 IN; DIAMETER: 3 FT 6 IN A/N: 464152 Permit to Construct Issued: 07/18/07	D96				



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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
COLUMN, DEBUTANIZER, CK-7, HEIGHT: 136 FT 6 IN; DIAMETER: 8 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D97				
SETTLING TANK, V-2245, DEBUTANIZER OVERHEAD, LENGTH: 7 FT; DIAMETER: 5 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D99				
COMPRESSOR, CK-501, WET GAS A/N: 464152 Permit to Construct Issued: 07/18/07	D103				
KNOCK OUT POT, V-3122, HEIGHT: 8 FT 4 IN; DIAMETER: 3 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D758				
KNOCK OUT POT, V-3172, WET GAS COMPRESSOR DISCHARGE, HEIGHT: 8 FT 6 IN; DIAMETER: 5 FT A/N: 464152 Permit to Construct Issued: 07/18/07	D943				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 464152 Permit to Construct Issued: 07/18/07	D838			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.22 - H23.36
Process 10 : STORAGE TANKS					P13.2
System 1 : FIXED ROOF TANKS					
STORAGE TANK, FIXED ROOF, NO. 16, 79022 BBL; DIAMETER: 117 FT 4 IN; HEIGHT: 41 FT 6 IN A/N 325724	D352				B22.1, H23.2, K67.3
STORAGE TANK, FIXED ROOF, NO. 17, FUEL OIL, 79113 BBL; DIAMETER: 117 FT 3 IN; HEIGHT: 41 FT 6 IN A/N 325877	D353				C1.3, H23.2
STORAGE TANK, FIXED ROOF, NO. 18, HEAVY FLASH DISTILLATE, 79135 BBL; DIAMETER: 117 FT 3 IN; HEIGHT: 41 FT 5 IN A/N 325726	D354				C1.4
STORAGE TANK, FIXED ROOF, HEATED, NO. 1678, SULFUR, INSULATED, 16450 BBL; DIAMETER: 70 FT; HEIGHT: 24 FT A/N: 325733	D359	C335		SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	
STORAGE TANK, FIXED ROOF, HEATED, NO. 1679, SULFUR, INSULATED, 16450 BBL; DIAMETER: 70 FT; HEIGHT: 24 FT A/N: 325735	D360	C335		SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
STORAGE TANK, FIXED ROOF, TK 2507, DIESEL STABILITY ADDITIVE DISTILLATE, 11700 GALS; DIAMETER: 10 FT; HEIGHT: 19 FT 11 IN A/N: 325737	D363				K67.3
STORAGE TANK, FIXED ROOF, NO. 2230, AMMONIUM POLYSULFIDE, 20000 GALS; DIAMETER: 15 FT; HEIGHT: 18 FT A/N: 325622	D86				E134.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N 325622 325726	D870			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]	H23.1

COMPLIANCE RECORD REVIEW

A query of the AQMD Compliance Database for the past two years (12/1/07 to 11/24/09) identified two NC's and 13 NOV's that were issued to the ConocoPhillips Carson Refinery (Facility ID 800362). None of these NOV's or NC's were related to the Delayed Coking Unit (P2S1); thus the compliance database indicates that the equipment in Process 2, System 1 is currently in compliance with applicable rules and regulations.

FEE EVALUATION

The BCAT for this permit unit is 351245 [Delayed Coking (heavy cut)], Schedule E. Applicable fees were paid with the Permit to Construct application. No additional fees are required for converting this Permit to Construct to a Permit to Operate.

BACKGROUND/HISTORY

The ConocoPhillips Carson Refinery is a Title V facility, as well as a NOx and SOx RECLAIM facility. A summary of the permitting history for this permit unit is provided below.

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Table 2. Permitting History for Delayed Coking Permit Unit (P2S1)

A/N	Permit #	Facility ID	Description	A/N Type	A/N Status	Permit issue date
464152	-	800362	Modification to add new knockout pot, correct dimensions on two vessels, remove pumps and heat exchanger from permit, and make internal modifications to existing devices	50	26	7/18/07
325723	-	800362	Modification to add two new pumps and a heat exchanger/waste heat boiler; (same as A/N 323186) (not completed)	50	52	4/10/97
325622	F6862 (Active)	800362	Change of owner from Unocal to Tesoro	40	31	4/25/97
323186	-	89814	Modification to add two new pumps D788 D789 and heat exchanger/waste heat boiler D790 (not completed)	20	52	2/6/97
310340	-	88892	Modification to add new pump CK-13 D778 and heat exchanger C-3315 D779 (not completed)	30	51	6/18/96
294067	D89313	88892	Modification to add fuel gas KO vessel (D758, V3122)	50	31	3/21/95
286466	D78460	88892	Modification to replace pump Ck-249 with a larger pump	50	31	11/18/93
266028	D52913	88892	Modification to add two new heat exchangers	30	31	5/6/92
257939	D45727	89797	Change of owner from Shell to Unocal	40	31	11/15/91
153011	D39882	1186	Modification to add 2 new pumps and increase hp rating of two other pumps	30	31	7/25/91
119772	M52712	1186	Modification to add 6 heat exchangers, a waste heat boiler and an ammonium polysulfide tank	50	31	10/3/86
113654	-	1186	Modification to add ten pieces of equipment	30	51	-
C37362	-	5545	Modification to increase hp of two pumps and one compressor	51	50	1/18/82
C21493	-	6035	Modification to add new column and rearrange equipment for capacity increase	50	51	5/27/80
A56195	P47297	1186	Original construction	0	31	12/3/71

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An engineering field evaluation was conducted at the ConocoPhillips Carson Refinery on December 4, 2008, which verified that the equipment described in the permit to construct was installed and being operated according to the equipment description and permit conditions. The final construction drawings and fugitive component counts were submitted on 8/6/08, then revised and re-submitted on 2/9/09.

During review of the delayed coking permit unit, it was noted that delayed coking process tank D86 had been assigned to P10S1 (fixed roof tanks). D86 (Tank No. 2230) is a 20,000 gallon-capacity fixed roof storage tank that is used to store ammonium polysulfide, a treatment chemical used in the Coker wash water system. This tank has historically been included in the delayed coking unit (see Permit No. D78460, A/N 286466, which lists Tk-2230 with the coking fractionators and strippers (CK-1 through CK-4 (D80-D83)). Thus, D86 is being removed from P10S1 and reinstated in the delayed coking unit, P2S1 under A/N 464152. Since the P10S1 miscellaneous fugitives device (D870) was tagged with the same A/N as D86, D870 is being tagged with A/N 325726, the A/N for D354, a fixed roof tank that remains in P10S1.

EMISSIONS

The A/N 464152 project did not include any changes to the throughput or capacity of this permit unit. The only impact on emissions was due to an increase in the number of fugitive components. The modifications associated with this permit application are detailed in the original engineering evaluation for the permit to construct. According to the PC, this project was expected to result in a ROG emissions increase of 3.6 lb/day, for which 4.3 lb/day of ROG offsets were required, per the 1.2-to-1.0 ratio specified in Rule 1303(b)(2)(A). The facility provided 4 lb/day of ROG offsets prior to the PC being issued.

The final construction drawings and fugitive component counts were submitted on 8/6/08, then revised and re-submitted on 2/9/09. The final component count included changes to the number of non-bellows seal valves installed, which caused a reduction in ROG emissions relative to the pre-permit to construct estimate. Based on final component counts, an emission increase of 2.7 lb/day is associated with this application. Table 3 lists the final component counts, showing the number of new fugitive components and the number of fugitive components removed from the permit unit. The net change in emissions from this project, an increase of 2.7 lb/day, is shown. Thus, only 3 lb/day of ROG offsets are needed per Rule 1303(b)(2)(A). However, since 4 lb/day of ROG offsets were provided with the PC, these ERCs were immediately considered “consumed”, and thus the 1 lb/day ERC submitted in excess of final emissions is not available to be returned to the facility (see memo dated 11/5/09).



Table 3. Calculation of pre- and post-project VOC emissions based on the number of fugitive components (#), showing the number of VOC offsets required for conversion to PO

Source Unit	Service	Emission Factor (lb/yr / # of components)	Previous #	Previous Total Emissions (lb/yr)	# Added	# Re-removed	Net change in #	Final Total #	Final Total Emissions (lb/yr)	
Valves	Sealed bellows	All	0	108	0	86	81	5	113	0
	SCAQMD approved I&M Program	Gas/Vapor	23	2131	49013	14	23	-9	2122	48806
		Light Liquid	19	612	11628	15	11	4	616	11704
		Heavy Liquid	3		0	212	54	158	158	474
		> 8 inches	19		0			0	0	0
Pumps	Sealless type	Light Liquid	0		0			0	0	0
	Double mechanical seals or equivalent	Heavy Liquid	104	13	1352			0	13	1352
	Single mechanical seals	Heavy Liquid	80	15	1200			0	15	1200
Compressors	Gas/Vapor	514	1	514			0	1	514	
Flanges (ANSI 16.5-1988)	All	1.5	1831	2746.5	579	281	298	2129	3193.5	
Pressure Relief Valves	All	0	25	0			0	25	0	
Process Drains with P-trap or seal pot	All	80	231	18480	6	6	0	231	18480	
Other (incl. fittings, hatches, sight-glasses, & meters)	All	1.5	4980	7470	124	0	124	5104	7656	
Previous Total Emissions (lb/yr)				92403.5	Final Total Emissions (lb/yr)				93379.5	
Previous Total Emissions (lb/day)				256.68	Final Total Emissions (lb/day)				259.39	
Previous Total Emissions (lb/hr)				10.69	Final Total Emissions (lb/hr)				10.81	

Difference in emissions (lb/day)	2.71
Offsets required (difference *1.2)	3
Offsets provided with PC	4
Offsets required with PO	-1

RULES EVALUATION

PART 1: SCAQMD REGULATIONS

Rule 401 Visible Emissions (Amended 11/09/01)

Operation of the Delayed Coking Unit is not expected to result in visible emissions. The facility is currently in compliance with this rule and is expected to continue to operate in compliance with this rule.

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Rule 402 Nuisance (Adopted 05/07/76)

Operation of the Delayed Coking Unit is not expected to result in a public nuisance. The facility is currently in compliance with this rule and is expected to continue to operate in compliance with this rule.

Rule 405 Solid Particulate Matter - Weight (Amended 02/07/86)

The coke drums (D796-D799) have the potential to emit PM. However, no compliance issues have been identified with the coke drums, and no NOVs or NCs have been issued. The facility is currently in compliance with this rule and is expected to continue to operate in compliance with this rule.

Rule 1123 Refinery Process Turnarounds (Amended 12/07/90)

Per Condition S13.5, the equipment in the Delayed Coking Unit (P2S1) is subject to the requirements of Rule 1123. This rule requires that during refinery process turnarounds, the vapors released from process vessels are collected and contained for disposal until the vessel pressure is below 5 psig (or within 10% above the minimum gauge pressure of vapor collection, whichever is lower).

If inert gas displacement or vacuum eduction is used for the process turnaround, a plan is required to be submitted to the Executive Officer describing the procedure, disposition of displaced or educed gases, and the identifiable criteria for the stage of the procedure where the disposition is changed from a control facility to atmospheric venting. The facility is currently in compliance with this rule and is expected to continue to operate in compliance with this rule.

Rule 1173 Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants (Amended 02/06/09)

Per Condition H23.36, the miscellaneous fugitive components (D838) in the Delayed Coking Unit are subject to the requirements of Rule 1173. The facility has an approved Inspection and Maintenance (I&M) program for monitoring and repairing fugitive components. All new and existing fugitive components are tagged with Rule 1173 and are monitored according to ConocoPhillips' Rule 1173 leak detection and repair plan. The facility is currently in compliance with this rule and is expected to continue to operate in compliance with this rule.

Reg XIII New Source Review (Amended 12/06/02)

Rule 1303 Requirements (Amended 12/6/02) New Source Review requirements apply to new, modified or relocated sources. The requirements of this regulation were imposed when the permit to construct was issued. No additional requirements apply.

BACT was required for miscellaneous fugitive components. The final fugitive component count identified each 29 non-bellows seal valves and provided a reason why a bellows-seal valve was not used in each case. The reasons provided

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for exemptions from the bellows-seal valve requirements (allowed per condition S31.3) are a) instrument piping/tubing service (22 valves); b) applications requiring torsional valve stem motion (5 valves); and c) valves not commercially available (2 valves). The valves designated as not commercially available are check valves, which have no valve stem to seal. Additional details are provided in the 2/9/09 submittal from the facility.

Offsets were required for the emissions increases associated with the increased emissions from fugitive components. Four lb/day of offsets were provided with the PC. The final counts of fugitive components indicated that only three lb/day of offsets were required. Because the offsets were considered 'consumed' once they were provided, the excess ERC is not available to be returned to the facility.

Reg XIV Toxics and Other Non-Criteria Pollutants
Rule 1401: New Source Review of Toxic Air Contaminants (Amended 06/05/09)

Rule 1401 applies to new, modified or relocated permit units that emit Toxic Air Contaminants (TAC). The requirements of this rule were imposed when the permit to construct was issued. No additional requirements apply.

Reg XXX Title V Permits
Rule 3002 Requirements (Amended 11/14/97) ConocoPhillips was issued a final Title V operating permit on 11/07/08. This application is part of a minor permit revision as defined in 3000(b)(12)(A). This Title V permit revision (A/N 503016) includes both this application (A/N 464152), with its 1 lb/day VOC increase, and A/N 471540, which has a 1 lb/day VOC decrease. The net change in emissions is $0 + 1 + -1 = 0$. Thus, this permit revision has no net increase in emissions, and is classified as a minor permit revision. Minor permit revisions must meet all of the criteria in Rule 3000(b)(12)(A)(i) – (ix). The Title V permit revision that includes this application has no net increase in emissions and thus meets the specific 3000(b)(12)(A)(vi) requirements. This revision also meets all of the other minor revision criteria.

Rule 3000(b)(12): MINOR PERMIT REVISION means any Title V permit revision that:

- (A) (i) does not require or change a case-by-case evaluation of: reasonably available control technology (RACT) pursuant to Title I of the federal Clean Air Act; or maximum achievable control technology (MACT) pursuant to 40 CFR Part 63, Subpart B;
- (ii) does not violate a regulatory requirement;
- (iii) does not require any significant change in monitoring terms or conditions in the permit;
- (iv) does not require relaxation of any recordkeeping, or reporting requirement, or term, or condition in the permit;

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- (v) does not result in an emission increase of RECLAIM pollutants over the facility starting Allocation plus nontradeable Allocations, or higher Allocation amount which has previously undergone a significant permit revision process;
- (vi) does not result in an increase in emissions of a pollutant subject to Regulation XIII - New Source Review or a hazardous air pollutant;
- (vii) does not establish or change a permit condition that the facility has assumed to avoid an applicable requirement;
- (viii) is not an installation of a new permit unit subject to a New Source Performance Standard (NSPS) pursuant to 40 CFR Part 60, or a National Emission Standard for Hazardous Air Pollutants (NESHAP) pursuant to 40 CFR Part 61 or 40 CFR Part 63; and,
- (ix) is not a modification or reconstruction of an existing permit unit, resulting in new or additional NSPS requirements pursuant to 40 CFR Part 60, or new or additional NESHAP requirements pursuant to 40 CFR Part 61 or 40 CFR Part 63

Minor permit revisions are exempt from public participation per 3006(b) but are required to be submitted to the EPA per 3003(j)(1)(A).

PART II: STATE REGULATIONS

CEQA **California Environmental Quality Act (Amended 01/01/05)**

The requirements of CEQA were imposed when the permit to construct was issued. No additional requirements apply.

PART III: FEDERAL REGULATIONS

40CFR60 Subpart GGGa Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after November 7, 2006 (Amended 06/02/08)

The miscellaneous fugitive components (D838) in the Delayed Coking Unit are subject to the requirements of 40CFR60 Subpart GGGa. As part of this permit action, Condition H23.22 is being replaced with Condition H23.36, which specifies compliance with 40CFR60 GGGa rather than 40CFR60 GGG. The permit to construct for the Delayed Coking Unit was issued on 7/18/07, but 40CFR60 Subpart GGGa was not finalized until 11/16/07. The final version of Subpart GGGa specified applicability for projects started after 11/7/06. Thus, the Delayed Coking Unit is subject to Subpart GGGa requirements, although at the time the PC was issued, it was subject to Subpart GGG.

40CFR60 Subpart GGGa primarily refers to Subpart VVa for specific requirements. The Delayed Coking Unit contains valves, pumps, compressors, flanges, pressure relief valves, process drains, and other fugitive components. Rule requirements apply to each of these categories, and vary from requirements on the specifications of the equipment to monthly monitoring for leaks and timely

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leak repair. The facility has implemented an LDAR program to monitor and repair leaks in fugitive components. The facility is currently in compliance with this regulation and is expected to continue to operate in compliance with this regulation.

Subpart GGG Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced after January 4, 1983, and on or before November 7, 2006 (Amended 06/02/08)

The Delayed Coking Unit is not subject to 40CFR60 Subpart GGG requirements. Based on the project start date, it is subject to 40CFR60 Subpart GGGa requirements. Condition H23.22 is being replaced by H23.36 to reflect this status.

40CFR61 Subpart FF National Emission Standard for Benzene Waste Operations (Amended 12/4/03)

The facility is required to identify benzene-containing streams and limit the amount of uncontrolled benzene emitted. The Consent Decree (Section H, Paragraph 212) requires that the facility sample End-of-Line streams and other streams with significant contributions to total annual benzene (TAB) in accordance with the “Benzene Waste Operations Revised Sampling Plan (6BQ Compliance Option)” dated 2/26/09. Sampling results were provided in the Consent Decree Semiannual Progress Report (July 2009). The ‘Influent to Coker Flasher CPI’ (CPI Coker) is one of the End-of-Line sampling points. The most recent results show an average benzene concentration of 0.01 mg/L at this location. The benzene emissions are included in the facility’s total annual benzene (TAB). The quarterly BWON report dated 7/15/09, indicates that the facility is projected to emit less than the 6 Mg/yr limit of uncontrolled benzene. The facility is currently in compliance with this regulation and is expected to continue to operate in compliance with this regulation.

40CFR63 Subpart CC National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (Amended 10/28/09)

The miscellaneous fugitive emissions in the Delayed Coking Unit (D838) are subject to the requirements of 40CFR63 Subpart CC. Petroleum refining process units with equipment leaks containing HAPs are subject to Subpart CC requirements per § 63.640(c)(4). Equipment leak standards are included in § 63.648, which refers to the requirements of 40CFR60 Subpart VV.

Since the Delayed Coking Unit is also subject to Subpart GGGa, which refers to Subpart VVa requirements, the facility can choose to comply with the Subpart CC requirements listed in Subpart VV by complying with the Subpart VVa requirements [§ 60.480(e)(2)]. It should be noted that Subpart VVa has some requirements that are more stringent than Subpart VV, notably the leak definition

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of 500 ppm rather than 10,000 ppm for valves in gas/vapor or light liquid service, and for pumps in light liquid service.

In response to comments received by the EPA, the EPA amended Subpart VVa on 6/2/08 to stay some of the requirements for facilities that started construction or modification before 11/17/07, the date that Subparts VVa and GGGa were finalized. These facilities are not required to comply with Subpart VVa until the EPA takes final action and publishes a document in the Federal Register [60.480a(f)(1)].

The facility is currently in compliance with this regulation and is expected to continue to operate in compliance with this regulation.

RECOMMENDATIONS

Based on the above evaluation, it is recommended that the permit to construct be converted to a permit to operate. It is recommended that a Permit to Operate be issued with the following conditions.

CONDITIONS

PROCESS CONDITIONS

P13.2 All devices under this process are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61, SUBPART	FF

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

[Processes subject to this condition : 1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

SYSTEM CONDITIONS

S13.5 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1123

[**RULE 1123, 12-7-1990**]

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[Systems subject to this condition : Process 1, System 1, 4, 8; Process 2, System 1, 3; Process 3, System 1, 3; Process 4, System 1; Process 5, System 1, 2, 3, 4; Process 6, System 1, 2, 3; Process 7, System 4, 5]

S15.4 The vent gases from all affected devices of this process/system shall be vented as follows:

All sour gases under normal operating conditions shall be directed to the sour gas treating unit(s).

This process/system shall not be operated unless the above air pollution control equipment is in full use and has a valid permit to receive vent gases from this system.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 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 1, System 1, 4, 8; Process 2, System 1, 3; Process 3, System 1]

S31.3 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 458382, 458383, 458384, 467378, 467377, and 464152:

The operator shall provide to the District, no later than 90 days after initial startup, a recalculation of the fugitive emissions based on actual components installed and removed from service. The valves and flanges shall be categorized by size and service. The operator shall submit a listing of all new non-bellows seal valves which shall be categorized by tag no., size, type, application, and reasons why bellows seal valves were not used.

The operator shall provide to the District, no longer than 90 days after initial startup, a complete, as built, piping and instrumentation diagram(s) and copies of requisition data sheets for all non-leakless type valves with a listing of tag numbers.

All new valves in VOC service, except those specifically exempted by Rule 1173 and those in heavy liquid service as defined in Rule 1173, shall be bellows seal valves, except as approved by the District, in the following applications: heavy liquid service, control valve, instrument piping/tubing, applications requiring torsional valve stem motion, applications where valve failure could pose safety hazard, retrofits/special applications with space limitations, and valves not commercially available.

All new valves and major components in VOC service as defined by Rule 1173, except those specifically exempted by Rule 1173 and those in heavy liquid service as defined in Rule 1173, shall be distinctly identified from other components through their tag numbers (e.g., numbers ending in the letter "N"), and shall be noted in the records.

All new components in VOC service as defined in Rule 1173, except valves and flanges, shall be inspected quarterly using EPA reference Method 21. All new valves and flanges in VOC service, except those specifically exempted by Rule 1173, shall be inspected monthly using EPA Method 21.

If 98.0 percent or greater of the new (non-bellows seal) valves and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv for two consecutive months, then the operator may change to a quarterly inspection program with the approval of the District.

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The operator shall revert from quarterly to monthly inspection program if less than 98.0 percent of the new (non-bellows seal) valves and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv.

All new components in VOC service with a leak greater than 500 ppmv but less than 1000 ppmv, as methane, measured above background using EPA Method 21 shall be repaired within 14 days of detection. Components shall be defined as any valve, fitting, pump, compressor, pressure relief valve, diaphragm, hatch, sight-glass, and meter, which are not exempted by Rule 1173.

The operator shall keep records of the monthly inspection (quarterly where applicable), subsequent repair and reinspection, in a manner approved by the District. Records shall be kept and maintained for at least two years, and shall be made available to the Executive Officer or his authorized representative upon request.

All open-ended valves shall be equipped with cap, blind flange, plug, or a second valve.

All pressure relief valves shall be connected to a closed vent system.

All new light liquid pumps shall utilize double seals and be connected to a closed vent system.

All compressors shall be equipped with a seal system with a higher pressure barrier fluid.

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

[Systems subject to this condition : Process 1, System 4; Process 2, System 1; Process 3, System 3; Process 14, System 1, 2, 3]

DEVICE CONDITIONS

B22.1 The operator shall not use this equipment with materials having a(n) true vapor pressure of 0.1 psia or greater under actual operating conditions.

[RULE 1301, 12-7-1995]

[Devices subject to this condition : D352]

C1.3 The operator shall limit the number of turnovers to no more than 90 in any one year.

[RULE 1301(b)(1), 12-7-1995]

[Devices subject to this condition : D353, D370]

C1.4 The operator shall limit the number of turnovers to no more than 40 in any one year.

[RULE 1301, 12-7-1995]

[Devices subject to this condition : D354]

D323.2 The operator shall conduct an inspection for visible emissions from all stacks and other emission points of this equipment whenever there is a public complaint of visible emissions, whenever visible emissions are observed, and on a semiannual basis, at least, unless the equipment did not operate during the entire

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semiannual period. The routine annual inspection shall be conducted while the equipment is in operation and during daylight hours.

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

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

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

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

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

[Devices subject to this condition : C465, C469, D796, D797, D798, D799]

E134.1 The operator shall maintain a layer of diesel oil at least 12" high on top of the ammonium polysulfide in this equipment.

[RULE 1301, 12-7-1995]

[Devices subject to this condition : D86]

H23.1 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, 2-6-2009 ~~RULE 1173, 6-1-2007~~]

[Devices subject to this condition :D870]

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



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Contaminant	Rule	Rule/Subpart
VOC	District Rule	463
VOC	District Rule	1178

[RULE 1178, 4-7-2006; RULE 463, 5-6-2005]

[Devices subject to this condition : D352, D353]

H23.36 This equipment is subject to the applicable requirements of the following rules or regulations:

<u>Contaminant</u>	<u>Rule</u>	<u>Rule/Subpart</u>
<u>VOC</u>	<u>District Rule</u>	<u>1173</u>
<u>VOC</u>	<u>40CFR60, SUBPART</u>	<u>GGGa</u>

[RULE 1173, 5-13-1994; RULE 1173, 2-6-2009; 40CFR 60 Subpart GGGa, 6-2-2008]

[Devices subject to this condition : D838]

Note: Condition H23.22 is being replace by new Condition H23.36 to reference Subpart GGGa rather than Subpart GGG. Subpart GGGa was finalized after the Permit to Construct was issued, which referenced Subpart GGG. Thus, this condition is being updated as part of the Permit to Operate.

~~H23.22 This equipment is subject to the applicable requirements of the following rules or regulations:~~

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

~~**[RULE 1173, 5-13-1994; RULE 1173, 6-1-2007; 40CFR 60 Subpart GGG, 6-2-2008]**~~

~~[Devices subject to this condition : D838]~~

K67.3 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Throughput and vapor pressure of stored liquid.

[RULE 1178, 4-7-2006; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 463, 5-6-2005]

[Devices subject to this condition : D352, D363]