PART D ATTACHMENTS

Tables 103.B through 103.K (Applicable Requirements Tables)

Table 104.A (Regulated Sources List)

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Table 107.A (Startup, Shutdown, and Maintenance (SSM) Emission Limits)

Table 103.B: Fugitives: Summary of Applicable Regulations

Title V Permit Unit ID	Description	MACT CC	NSPS GGGa	NSPS QQQ[a]	NESHAP J[b]	NESHAP V[c]
FUG-02-SP CRUDE	South Division Crude Unit	NO[d]	YES	YES	NO	NO
FUG-06-NHDU	Naphtha HDS Unit 06	NO[d]	YES	YES	NO	NO
FUG-07-N AMINE	Amine Unit-Treating/Regen.	NO[d]	YES	YES	NO	NO
FUG-07-SWS1	Sour Water Stripper	NO[d]	YES	YES	NO	NO
FUG-08-TRUCK RK	Loading Racks	NO[d]	YES	YES	NO	NO
FUG-09-N ALKY	North Alkylation Unit (New-Inside battery limits)	NO[d]	YES	YES	NO	NO
FUG-10-FCC	FCC w/CVS	NO[d]	YES	YES	NO	NO
FUG-13-NHDU	Naphtha HDS Unit 13	NO[d]	YES	YES	NO	NO
FUG-18-LSR MEROX TRT	Merox/Merichem Treating Units	NO[d]	NO	YES	NO	NO
FUG-19-NAPH	Naphtha Merox	NO[d]	NO	YES	NO	NO
FUG-20-ISOM	BenFree Unit	NO[d]	YES	YES	NO	NO
FUG-21-SP VACUUM	Flasher/Vacuum Unit	NO[d]	YES	YES	NO	NO
FUG-25-ROSE-2	ROSE Unit	NO[d]	YES	YES	NO	NO
FUG-29-BLENDER/TK FARM	Light Oil Tankage	NO[d]	YES	YES	NO	NO
FUG-30-SRU2/TGTU	SRU2/SWS w/CVS	NO[d]	YES	YES	NO	NO
FUG-31- SRU3/TGTU3/TGI3	SRU3 Unit	NO[d]	YES	YES	NO	NO
FUG-33-DIST HDU	Relocated Diesel HDS Unit w/CVS	NO[d]	YES	YES	NO	NO

Title V Permit Unit ID	Description	MACT CC	NSPS GGGa	NSPS QQQ[a]	NESHAP J[b]	NESHAP V[c]
FUG-34- HYDROCRACKER	WX Hydrocracker	NO[d]	YES	YES	NO	NO
FUG-35-SAT GAS	Saturates Gas Plant	NO[d]	YES	YES	NO	NO
FUG-36-RO	Reverse Osmosis	NO	NO	YES	NO	NO
FUG-37-NP-UT	North Plant Utilities	NO	NO	YES	NO	NO
FUG-41-PBC	PBC Unit	NO[d]	YES	YES	NO	NO
FUG-43-S ALKY	South Alky Unit (W-76)	NO[d]	NO	YES	NO	NO
FUG-44-DIST-HDU	Gas Oil Hydrotreater (incl. CVS)	NO[d]	YES	YES	NO	NO
FUG-45-DIST-HDU	Gas Oil Hydrotreater (incl. CVS)	NO[d]	YES	YES	NO	NO
FUG-54-PRIMEG	Prime G Unit	NO[d]	YES	YES	NO	NO
FUG-63-H2 PLANT-1	Hydrogen Plant	NO	YES	YES	NO	NO
FUG-64-H2 PLANT-2	Hydrogen Plant	NO	YES	YES	NO	NO
FUG-70-CCR	CCR Reformer (w/in battery limits)	NO[d]	YES	YES	NO	NO
FUG-73-SP UTIL	Utilities	NO	NO	YES	NO	NO
FUG-80-WWTP CVS	Oil/Water Separator	NO[d]	YES	YES	NO	NO
FUG-LPG	LPG Storage System	NO[d]	YES	YES	NO	NO

a. All wastewater sources are subject to NSPS QQQ (0195-M17(5)(J), December 15, 2004).

b. No refinery streams contain benzene at concentration of 10% wt or greater.

c. NESHAP V is only applicable if subject to NESHAP J.

d. Exempt from MACT CC pursuant to 40 CFR §63.640(p)(2)

Table 103.C: Storage Tanks: Summary of Applicable Regulations

Tank No.	NSPS K	NSPS Ka	NSPS Kb	MACT CC Storage	MACT CC Wastewater	NESHAP FF	NSPS QQQ	20.2.38.109 NMAC	20.2.38.110 NMAC	20.2.38.113 NMAC	CAM
T-0001	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0002	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0003	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0004	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
T-0011	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0012	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0020	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0021	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0022	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0023	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0026	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0028	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0031	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0040	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0041	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0042	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0045	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0046	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0049	NO	NO	NO	YES	N/A	YES	YES	YES	YES	NO	NO
T-0055	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0056	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0059	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0061	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0063	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0064	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0065	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO

Tank No.	NSPS K	NSPS Ka	NSPS Kb	MACT CC Storage	MACT CC Wastewater	NESHAP FF	NSPS QQQ	20.2.38.109 NMAC	20.2.38.110 NMAC	20.2.38.113 NMAC	CAM
T-0071	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0072	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0073	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0074	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0075	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0076	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0079	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0081	NO	NO	NO	YES	N/A	N/A	N/A	YES	NO	NO	NO
T-0082	NO	NO	NO	YES	N/A	N/A	N/A	YES	NO	NO	NO
T-0106	NO	NO	NO	YES	N/A	N/A	N/A	YES	YES	NO	NO
T-0107	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0108	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0109	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0110	NO	NO	NO	YES	N/A	N/A	N/A	YES	YES	NO	NO
T-0111	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0112	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0114	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0115	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0116	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0117	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0119	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0124	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0400	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0401	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0402	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0410	NO	NO	NO	YES	N/A	N/A	N/A	YES	YES	NO	NO
T-0411	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0412	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0413	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO

Tank No.	NSPS K	NSPS Ka	NSPS Kb	MACT CC Storage	MACT CC Wastewater	NESHAP FF	NSPS QQQ	20.2.38.109 NMAC	20.2.38.110 NMAC	20.2.38.113 NMAC	CAM
T-0415	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0417	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0418	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0419	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0420	NO	NO	NO	YES	N/A	N/A	N/A	YES	YES	NO	NO
T-0422	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0423	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0431	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0432	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0433	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0434	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0435	NO	NO	YES	YES	N/A	N/A	N/A	YES	YES	YES	NO
T-0437	YES	NO	NO	YES	N/A	N/A	N/A	YES	NO	NO	NO
T-0438	NO	YES	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0439	NO	YES	NO	YES	N/A	N/A	N/A	YES	YES	YES	NO
T-0446	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0447	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0448	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0449	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0450	NO	NO	YES	YES	N/A	N/A	N/A	YES	NO	NO	NO
T-0451	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0452	NO	NO	YES	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0453	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0460	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0465	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0466	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0467	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0468	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0600	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO

Tank No.	NSPS K	NSPS Ka	NSPS Kb	MACT CC Storage	MACT CC Wastewater	NESHAP FF	NSPS QQQ	20.2.38.109 NMAC	20.2.38.110 NMAC	20.2.38.113 NMAC	CAM
T-0737	NO	NO	YES	YES	N/A	N/A	N/A	YES	YES	YES	NO
T-0802	NO	NO	YES	YES	N/A	N/A	N/A	YES	YES	YES	NO
T-0803	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0804	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0807	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0809	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0814	NO	NO	NO	YES	N/A	N/A	N/A	YES	YES	YES	NO
T-0815	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0816	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0821	NO	NO	YES	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0829	NO	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO
T-0834	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0835	NO	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0838	YES	NO	NO	YES	N/A	N/A	N/A	NO	NO	NO	NO
T-0839	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0840	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0841	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0891	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-0892	NO	NO	NO	NO	N/A	N/A	N/A	NO	NO	NO	NO
T-1224	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
T-1225	NO	NO	YES	YES	N/A	N/A	N/A	YES	NO	NO	NO
T-1227	NO	NO	YES	YES	N/A	N/A	N/A	YES	YES	YES	NO

Table 103.D: Truck and Rail Loading Racks: Summary of Applicable Regulations

Unit ID	Description	NSPS XX	MACT R	MACT CC	CAM
TLO-1	Asphalt Truck Loading and Off-Loading Rack #1	NO	NO	NO	NO
TL-2	Asphalt Truck Loading Rack #2	NO	NO	NO	NO

Unit ID	Description	NSPS XX	MACT R	MACT CC	CAM
TL-4	Fuels Truck Loading Rack	NO*	NO**	YES	NO
TL-7	CBO/LCO Truck Loading Rack	NO	NO	NO	NO
RLO-8	Railcar Loading & Off-Loading	NO	NO	NO	NO
RLO-19	Railcar Loading & Off-Loading	NO	NO	NO	NO
TLO-20	Asphalt/Pitch Truck Loading	NO	NO	NO	NO
TRLO-9	Molten Sulfur Truck/Railcar Loading	NO	NO	NO	NO

*Compliance is not required pursuant to 40 CFR § 63.640(r).
**Compliance is not required pursuant to 40 CFR § 63.420(i).

Table 103.E: Boilers and Heaters: Summary of Applicable Regulations

Unit ID	Description	NSPS D	NSPS Db	NSPS Dc	NSPS J [a]	NSPS Ja [b]	MACT DDDDD	20.2.33.108 NMAC	20.2.61 NMAC	CAM
B-0007	Boiler 7	NO	YES	NO	YES	NO	YES	YES	YES	NO
B-0008	Boiler 8	NO	YES	NO	YES	NO	YES	YES	YES	NO
B-0009	Boiler 9	NO	YES	NO	NO	YES [c]	YES	YES	YES	NO
H-0009	Unit 13 Naphtha Splitter Reboiler	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0011	Unit 21 Vacuum Unit Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0018	Unit 06 HDS Reboiler	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0019	South Crude Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0020	South Crude Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0028	Unit 21 Heater H-28	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0030	Unit 06 Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0040	Unit 13 Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0312	Unit 10 FCC Feed Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0352	Unit 70 CCR Reformer Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0353	Unit 70 CCR Reformer Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO

Unit ID	Description	NSPS D	NSPS Db	NSPS Dc	NSPS J [a]	NSPS Ja [b]	MACT DDDDD	20.2.33.108 NMAC	20.2.61 NMAC	CAM
H-0354	Unit 70 CCR Reformer Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0355	Unit 70 Stabilizer Reboiler Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0362	Unit 70 CCR Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0363	Unit 70 CCR Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0364	Unit 70 CCR Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0421	Unit 44 Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0464	SRU Hot Oil Heater	NO	NO	YES	YES	NO	YES	NO	YES	NO
H-0473	SRU2 Tail Gas Incinerator	NO	NO	NO	YES	NO	NO	NO	YES	NO
H-0600	Unit 09 Depropanizer Reboiler Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-0601	Unit 33 Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-2421	Unit 45 Charge Heater	NO	NO	NO	YES	NO	YES	NO	YES	NO
H-8801/ H-8802	Unit 63 Hydrogen Plant Reformer	NO	NO	NO	YES	NO	YES	YES	YES	NO
H-3402	Unit 34 Hydrocracker Reboiler 1	NO	NO	NO	NO	YES	YES	NO	YES	NO
H-3403	Hydrocracker Reactor Charge Heater	NO	NO	NO	NO	YES	YES	NO	YES	NO
H-5401	Unit 54 HDS Reactor Heater	NO	NO	NO	NO	YES	YES	NO	YES	NO
H-9851	Unit 64 Hydrogen Plant Reformer	NO	NO	NO	NO	YES	YES	YES	YES	NO
H-2501	Unit 25 ROSE® Unit No.2 Hot Oil Heater	NO	YES	NO	NO	YES [c]	YES	YES	YES	NO
H-3101	SRU3 Hot Oil Heater	NO	NO	YES	NO	YES [d]	YES	NO	YES	NO
H-3103	SRU3 Tail Gas Incinerator	NO	NO	NO	NO	YES	NO	NO	YES	NO

a. For all fuel gas combustion devices that are affected facilities under NSPS subpart J, Navajo has elected to comply with the fuel gas H_2S concentration standard under 40 CFR § 60.102a(g)(1)(ii) and associated monitoring, recordkeeping, and reporting requirements in NSPS subpart Ja, as provided by 40 CFR §§ 60.100(e) and 60.100a(b).

b. Except as noted, affected facilities under NSPS subpart Ja are process heaters subject to both the fuel gas H_2S concentration standard under 40 CFR § 60.102a(g)(1)(ii) and, if applicable based on heat input capacity, emission standards for NO_X under § 60.102a(g)(2).

c. Steam generating unit, not subject to NO_X emission standards under NSPS subpart Ja pursuant to 40 CFR § 60.40b(c).

d. Steam generating unit, not subject to NO_X emission standards under NSPS subpart Ja pursuant to 40 CFR § 60.40c(h).

Table 103.F: Cooling Towers: Summary of Applicable Regulations

Cooling Tower	Description	MACT Q	MACT CC[a]	CAM
Y-0001	TCC Cooling Tower	NO	YES	NO
Y-0002	S. Alky Cooling Tower (Marley Cooling Tower)	NO	YES	NO
Y-0008	North Alky Cooling Tower	NO	YES	NO
Y-0011	FCC & NP Cooling Tower	NO	YES	NO
Y-0012	Hydrogen Plants Cooling Tower	NO	YES	NO
CT TT-0006	Unit 07 Amine W-0745 Cooling Tower	NO	NO	NO

a For MACT CC, the "heat exchange system" is included in the existing affected source. "YES" indicates the listed cooling tower is part of a heat exchange systems that is part of the affected source.

Table 103.G: Wastewater Units: Summary of Applicable Regulations

Equipment ID	Emission Point ID	NESHAP FF	NSPS QQQ	MACT CC	CAM
Collector Sump	D-8000/D-8001	YES	YES	YES	NO
T-0845 Weir Box					
T-0844 Stilling Well					
T-0846 Stormwater Lift Station (SWLS)					
T-0830 Stormwater Surge Tank	T-0830	YES	YES	YES	NO
S-1/T-1 Barscreen and Junction Box	D-0829/0830	YES	YES	YES	NO
API-894					
API-895					
Equalization T-801	T-801	YES	NO	YES	NO
Equalization T-836	T-836	YES	NO	YES	NO
Flocculator T-0805	T-805	YES	NO	YES	NO
DAF-896	DAF-896/ 806	YES	NO	YES	NO
DAF-806					
Open Sump T-897	T-0897	YES	NO	YES	NO

Equipment ID	Emission Point ID	NESHAP FF	NSPS QQQ	MACT CC	CAM
Walnut Hull Filters D-810/811 and Mechanical Filter D-808/809	D-810/811 D-808/809	YES	NO	YES	NO
DAF Surge Tank T-809	T-0809	YES	NO	YES	NO

Table 103.H: FCCU and CCR: Summary of Applicable Regulations

Unit ID	NSPS J	NSPS Ja	MACT UUU	CAM
FCC REGEN	YES	NO	YES	YES Satisfied by MACT UUU
CCR	N/A	N/A	YES	NO

Table 103.I: SRU: Summary of Applicable Regulations

Source ID	Emission Point ID	Description	NSPS J	NSPS Ja	MACT UUU	20.2.61 NMAC	20.2.39 NMAC	CAM
SRU2	H-0473	SRU2 Tail Gas Incinerator	YES	NO	YES	YES	NO	YES Satisfied by MACT UUU
SRU3	H-3103	SRU3 Tail Gas Incinerator	NO	YES	YES	YES	NO	YES Satisfied by MACT UUU

Table 103.J: Engines: Summary of Applicable Regulations

Source ID	Description	NSPS IIII	NSPS JJJJ	MACT ZZZZ	20.2.61.109 NMAC	CAM
MG-0001	Portable Air Compressor	YES	NO	YES	YES	NO
MG-0002	Portable Air Compressor	YES	NO	YES	YES	NO
MG-0003	Portable Air Compressor	YES	NO	YES	YES	NO
MG-0004	Portable Fire Water Pump Engine	YES	NO	YES	YES	NO
SG-0100	UPS backup generator	NO	NO	YES	YES	NO
SG-0101	UPS backup generator	NO	NO	YES	YES	NO
SG-0102	Server Backup Generator	YES	NO	YES	YES	NO
FWG-0600	Fire Water Pump Engine	YES	NO	YES	YES	NO
FWG-0601	Fire Water Pump Engine	YES	NO	YES	YES	NO
FWG-0602	Fire Water Pump Engine	YES	NO	YES	YES	NO
FWG-0603	Fire Water Pump Engine	YES	NO	YES	YES	NO

Table 103.K: Flares: Summary of Applicable Regulations

Unit ID	Description[a]	NSPS J	NSPS Ja	MACT CC	20.2.61 NMAC
FL-400	North Plant Flare	NO	YES	YES	YES
FL-401	South Plant Flare	NO	YES	YES	YES
FL-402	FCCU Flare	NO	YES	YES	YES
FL-403	Alky Flare	NO	YES	YES	YES
FL-404	GOHT Flare	NO	YES	YES	YES
FL-HEP-PORT	Portable Flare for Holly Energy Partners (HEP) Pipeline Pigging Operations	NO[b]	NO[b]	NO[c]	YES[d]

a. FL-400 through FL-404 flares are steam assisted.

b. Flare is not in a petroleum refinery.

c. Flare is not used as a control device for any emission points listed in 40 CFR § 63.640(c).

d. Flare is portable, but stationary source definition includes portable stationary sources (20.2.72.7.EE NMAC), there are permitted SSM FL-HEP-PORT emission limits to be met, and finally does not qualify as an exemption under 20.2.74 NMAC.

Table 104.A: Regulated Sources List

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
Alky Reactor	Alky Reactor part of Alkylation Unit	N/R	N/R	N/R	Not reported	Not reported	Not reported
API 894-895	Above Ground API Oil-Water Separator	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1200 gal/min / 1200 gal/min
B-0007	Boiler B-7	Todd/John Zink burners	N/R	N/R	08-OCT-01	12-MAR-01	215 MM BTU/h / 215 MM BTU/h
B-0008	Boiler B-8	Todd/John Zink burners	N/R	N/R	12-MAR-03	12-MAR-01	215 MM BTU/h / 215 MM BTU/h
B-0009	Boiler B-9	Babcock & Wilcox	N/R	N/R	01-JAN-12	01-JAN-12	220 MM BTU/h / 220 MM BTU/h
CT TT-0006	Unit 07 Amine W-0745 Cooling Tower	N/R	N/R	N/R	01-APR-11	01-APR-11	3000 gal/min / 3000 gal/min
Collection Sump	Collector Sump, T-0845 Weir Box, T-0844 Stilling Well, T-0846 Stormwater Lift Station (Wastewater Treatment System)			N/A	TBD		72000 g/h /
D-810/811 & D-808/809	Fugitives (Walnut Hull and Mechanical Filters)				TBD		2400 gal/min /
FCC Regenerator	Fluidized Catalytic Cracking Unit (FCC Regenerator Scrubber)	Exxon	IV	N/R	02-MAY-79	02-MAY-79	16000 bbl / 16000 bbl

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
FL-400	North Plant Flare	Callidus	N/R	N/R	20-AUG-73	20-AUG-73	3 MM BTU/h / 3 MM BTU/h
FL-401	South Plant Flare	John Zinc	N/R	N/R	21-AUG-73	20-AUG-73	1 MM BTU/h / 1 MM BTU/h
FL-402	FCC Flare	Flare Gas Corporation	N/R	N/R	01-JAN-79	20-AUG-73	53 MM BTU/h / .66 MM BTU/h
FL-403	Alky Flare	John Zinc	N/R	N/R	14-MAR-91	14-MAR-91	8 MM BTU/h / 8 MM BTU/h
FL-404	GOHT Flare	John Zink	N/R	N/R	01-JAN-03	13-SEP-96	8 MM BTU/h / 8 MM BTU/h
FUG-02-SP CRUDE	South Division Crude Unit	N/R	N/R	N/R	01-JAN-09	01-JAN-09	/
FUG-06-NHDU	Naphtha HDS Unit 06	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-07-N AMINE	Amine Unit - Treating/Regen.	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-07-SWS1	Sour Water Stripper	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-08-TRUCK RK	Loading Rack	Loading Rack	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-09-N ALKY	North Alkylation Unit (new-Inside battrey limits)	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-10-FCC	FCC w/CVS	N/R	FCCU w/CVS	N/R	09-SEP-03	09-SEP-03	/
FUG-13-NHDU	Naphtha HDS Unit 13	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
FUG-18-LSR MEROX TRT	Merox/Merichem Treating Units	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-19-NAPHTHA	Naptha Merox	N/R	N/R	N/R	TBD		/
FUG-20-ISOM	BenFree Unit	BenFree Unit	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-21-SP VACUUM	Flasher Vacuum Unit	N/R	N/R	N/R	01-MAY-05	01-MAY-05	/
FUG-25-ROSE-2	ROSE Unit	N/R	N/R	N/R			/
FUG-29-BLENDER/TK FARM	Light Oil Tanker	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-30-SRU3/TGTU	SRU2/SWS w/CVS	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-31-SRU3/TGTU3/TGI3	SRU3 Unit	N/R	N/R	N/R	01-JAN-07		/
FUG-33-DIST HDU	Relocated Diesel HDS Unit w/CVS	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-34-HYDROCRACKER	WX Hydrocracker	N/R	N/R	N/R	01-JAN-08		/
FUG-35-SAT GAS	Saturates Gas Plant	Saturates Gas Plant	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-36-RO	Reverse Osmosis	Reverse Osmosis	N/R	N/R	TBD		/

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
FUG-37-NP-UT	North Plant Utilities	Reverse Osmosis	N/R	N/R	TBD		/
FUG-41-PBC	PBC Unit	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-43-S ALKY	South Alky Unit (W-76)	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-44-DIST-HDU	Gas Oil Hydrotreater (incl. CVS)	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-45-DIST-HDU	Gas Oil Hydrotreater (incl. CVS)	N/R	N/R	N/R			/
FUG-54-PRIMEG	Prime G Unit	Prime G Unit	N/R	N/R	01-DEC-16	01-DEC-16	/
FUG-63-H2 PLANT-1	Hydrogen Plant	N/R	N/R	N/R	01-MAR-06	01-MAR-06	/
FUG-64-H2 PLANT-2	Hydrogen Plant	N/R	N/R	N/R	01-JAN-08		/
FUG-70-CCR	CCR Reformer (w/in battery limits)	CCR	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-73-SP UTIL	Utilities	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-80-WWTP CVS	Oil Water Separator	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUG-LPG	LPG Storage System	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
FUGITIVES	Total of All Fugitives	N/R	N/R	N/R			/

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
FWG-0600	Fire Water Pump Engine	Clark Diesel (John Deere)	JW6H-UFAD70	RG6090L113548	01-NOV-12		376 hp / 376 hp
FWG-0601	Fire Water Pump Engine	Clark Diesel (John Deere)	JW6H-UFAD70	RG6090L113561	01-NOV-12		376 hp / 376 hp
FWG-0602	Fire Water Pump Engine	Clark Diesel (John Deere)	JW6H-UFAD70	RG6090L113574	01-NOV-12		376 hp / 376 hp
FWG-0603	Fire Water Pump Engine	Clark Diesel (John Deere)	JU6H-UFAX8	PE6068L228486	01-APR-13		305 hp / 305 hp/
Fixed Roof Tanks	Fixed Roof (all - total)	N/R	N/R	N/R			/
Flare Malf Cap	Malfunction Emissions (upsets)	N/R	N/R	N/R	22-OCT-12		/ 166667 SCF/h
Floating-Roof Tanks	Floating-Roof (all - total)	N/R	N/R	N/R			/
H-0009	Unit 13 Naphtha Splitter Reboiler	Zeeco burners	GSFW-12 burners	N/R	01-JAN-70	01-JAN-70	44 MM BTU/h / 44 MM BTU/h
H-0011	Unit 21 Vacuum Flasher Heater	John Zink burners	HEVD-14	N/R	26-SEP-14	26-SEP-14	38 MM BTU/h / 38 MM BTU/h
H-0018	Unit 06 HDS Reboiler	Zeeco burners	GSFW-8 burners	N/R	14-NOV-75	14-NOV-75	32 MM BTU/h / 32 MM BTU/h

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
H-0019	South Crude Charge Heater	Callidus Technologies, LLC burners	CUBL-8W burners	N/R	01-MAY-05	01-MAY-05	54 MM BTU/h / 54 MM BTU/h
H-0020	South Crude Charge Heater	Callidus Technologies, LLC burners	CUBL-12W burners	N/R	01-DEC-05	20-AUG-73	90 MM BTU/h / 90 MM BTU/h
H-0028	Unit 21 Heater	John Zink burners	PSFG-12 burners	N/R	01-NOV-93	20-AUG-73	12.3 MM BTU/h / 12.3 MM BTU/h
H-0030	Unit 06 Charge Heater	John Zink burners	PSFG-16R burners	N/R	19-DEC-01	12-MAR-00	42 MM BTU/h / 42 MM BTU/h
H-0040	Unit 13 Charge Heater	John Zink burners	PSFG-16 burners	N/R	01-NOV-97	28-AUG-90	42 MM BTU/h / 42 MM BTU/h
H-0312	Unit 10 FCC Feed Heater	John Zink burners	VYD-18 burners	N/R	02-MAY-90	02-MAY-79	35 MM BTU/h / 35 MM BTU/h
H-0352, H-0353, H-0354	Unit 70 CCR Reformer Heaters (aka: 70-H1, 70-H2, 70-H3)	Callidus Technologies, LLC burners	CUBL-10W burners	N/R	28-AUG-05	28-AUG-90	200 MM BTU/h / 200 MM BTU/h
H-0355	Unit 70 Stabilizer Reboiler Heater	John Zink burners	N/R	N/R	28-AUG-91	28-AUG-90	28 MM BTU/h / 28 MM BTU/h
H-0362, H-0363, H-0364	Unit 70 CCR Heaters (3 heaters combined)	Callidus Technologies, LLC burners	CUBL-8W and 6W burners	N/R	01-MAR-06		125 MM BTU/h / 125 MM BTU/h
H-0421	Unit 44 Charge Heater	John Zink burners	LNC-PC-18 burners	N/R	23-MAY-01	20-AUG-73	27 MM BTU/h / 27 MM BTU/h

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
H-0464	SRU Hot Oil Heater	Callidus Technologies, LLC burners	LE-CSG-4W burners	N/A	01-NOV-03	22-OCT-03	9.6 MM BTU/h / 9.6 MM BTU/h
H-0473	SRU2 Tail Gas Incinerator	N/R	N/R	N/R	01-DEC-01	01-DEC-01	35 MM BTU/h / 35 MM BTU/h
H-0600	Unit 09 Depropanizer Reboiler Heater	Callidus Technologies, LLC burners	CUBL-12W burners	N/R	20-AUG-09	20-AUG-73	84 MM BTU/h / 84 MM BTU/h
H-0601	Unit 33 Charge Heater	Callidus Technologies, LLC burners	CUB-8P-CW burners	N/R	13-DEC-03	13-DEC-01	78 MM BTU/h / 78 MM BTU/h
H-2421	Unit 45 Charge Heater	Zeeco, Inc. burners	GLSF-14 Round Flame "Free Jet" burners	N/R	01-MAR-06	01-MAR-06	27 MM BTU/h / 27 MM BTU/h
H-2501	Unit 25 ROSE2 Hot Oil Heater	John Zink Company, LLC burners	COOLstar-18 burners	N/R	01-JAN-09	01-JAN-09	120 MM BTU/h / 120 MM BTU/h
H-3101	SRU3 Hot Oil Heater	Callidus Technologies, LLC burner	N/R	N/R	11-MAY-09	11-MAY-09	11 MM BTU/h / 11 MM BTU/h

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
H-3103	SRU3 Tail Gas Incinerator	Callidus Technologies, LLC burners	N/R	N/R	11-MAY-09	11-MAY-09	10.2 MM BTU/h / 10.2 MM BTU/h
H-3402	Unit 34 Hydrocraker Reboiler 1	Callidus Technologies, LLC burners	LE-CSG-12W burners	N/R	01-JAN-09	01-JAN-09	52 MM BTU/h / 52 MM BTU/h
H-3403	Unit 34 Hydrocracker Reactor Charge Heater	Callidus Technologies, LLC burners	CUBL-10W burners	N/R	01-JAN-11	01-JAN-11	32 MM BTU/h / 32 MM BTU/h
H-5401	Unit 54 HDS Reactor Heater	Unit 54 HDS Reactor Heater	N/R	N/R	27-JAN-16	27-JAN-16	19 MM BTU/h / 19 MM BTU/h
H-8801, H-8802	Unit 63 Hydrogen Plant Reformer Furnaces	Callidus Technologies, LLC burners	LE-CSG-12W-PSA burners	N/R	01-MAR-06	01-MAR-06	152 MM BTU/h / 152 MM BTU/h
H-9851	Unit 64 Hydrogen Plant Reformer	Callidus Technologies, LLC burners	CUBL-3WDF burners	N/R	01-JAN-09	01-JAN-09	337 MM BTU/h / 337 MM BTU/h
MG-0001	Portable Air Compressor Diesel Engine (was V-0543)	Cummins	QSC 8.3	44358719	01-FEB-12	01-FEB-12	280 hp / 280 hp

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
MG-0002	Portable Air Compressor Diesel Engine (was V-0545)	Cummins	QSC 8.3	46338720	01-FEB-12	01-FEB-12	280 hp / 280 hp
MG-0003	Portable Air Compressor Diesel Engine (was V-0546)	Doosan/Cummins	QSB 4.5	489581UKACF68	01-FEB-19	01-FEB-19	138 hp / 138 hp
MG-0004	Portable Fire Water Pump Engine	Caterpillar	C18	WJH07870		01-OCT-10	700 hp / 700 hp
RLO-19	Railcar Loading & Off-Loading Rack	N/R	N/R	N/R	09-SEP-03	09-SEP-03	3950 bbl/h / 3950 bbl/h
RLO-8	Rail Car Loading and Off-Loading Rack	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1500 bbl/h / 1500 bbl/h
S-1/T-1	Barscreen & Junction Box (Wastewater Treatment System)	N/A	N/A	N/A	TBD		72000 g/h /
SG-0100	UPS Backup Generator	Deutz	F4L912GEN	WDZXL05.7010	01-JAN-02	01-JAN-98	54 hp / 52 hp
SG-0101	UPS Backup Generator	Deutz	F4L1011F	EI97-68CA00-000-0053	01-JAN-06	01-JAN-99	54 hp / 54 hp
SG-0102	Server Backup Generator Engine	John Deere	N/R	4045HFS80	01-JAN-18	01-JAN-18	99.23 hp / 74 kW
SSM FL-HEP-PORT	Portable Flare for Pigging Operation	Flarestack, Inc.	N/R	N/R	01-AUG-11		/ 166667 SCF/h
SSM Flare Cap	Venting SSM to FL-400, FL-401, FL-402, FL-403, or FL-404	N/R	N/R	N/R	22-OCT-12		/ 166667 SCF/h

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
SSM H-0473	SSM Emissions from SRU2 Tail Gas Incinerator	N/R	N/R	N/R	01-DEC-01	01-DEC-01	35 MM BTU/h / 35 MM BTU/h
SSM H-3103	SSM Emissions from SRU3 Tail Gas Incinerator	Callidus Technologies, LLC burners	N/R	N/R	11-MAY-09	11-MAY-09	10.2 MM BTU/h / 10.2 MM BTU/h
SSM H-9851	SSM Emissions during SCR downtime	Callidus Technologies, LLC burners	CUBL-3WDF burners	N/R	01-JAN-09	01-JAN-09	337 MM BTU/h / 337 MM BTU/h
SSM Pigging	Pigging Operations						/
SSM T-0737	Tank SSM Emissions from roof landing	N/R	N/R	N/R	01-JAN-09	01-JAN-09	932400 gal / 30660 gal/y
SSM Tanks Misc	Tank Roof Landings and Degassings	N/A	N/A	N/A	01-JAN-08	01-JAN-08	80000 bbl / 1226.4 MM bbl/y
SSM Tanks VCU	Storage Tank Maintenance Vapor Combustion Units	N/R	N/R	N/R	09-SEP-19	09-SEP-19	1900 degrees F / 1900 degrees F
SSM-1 MISC	Emissions from catalyst handling	N/R	N/R	N/R			/
SSM-2 MISC	Low-emitting Maintenance Activities	N/R	N/R	N/R	29-APR-11		/
T = Tank							
T-0011	Gasolines, IFR	N/R	N/R	N/R	01-JAN-73	09-SEP-03	1349460 gal / 222 MM gal/y
T-0012	Gasolines, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1349460 gal / 220 MM gal/y

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
T-0020	Gasolines, internal floating roof (IFR)tanks for gasoline blending	N/R	N/R	N/R	01-OCT-20	01-OCT-20	1800 M bbl/y / 54380 bbl
T-0021	Gasolines, internal floating roof (IFR)tanks for gasoline blending	N/R	N/R	N/R	01-OCT-20	01-OCT-20	1800 M bbl/y / 54380 bbl
T-0022	Gasolines, internal floating roof (IFR)tanks for gasoline blending	N/R	N/R	N/R	01-OCT-20	01-OCT-20	1800 M bbl/y / 37770 bbl
T-0023	Gasolines, internal floating roof (IFR)tanks for gasoline blending	N/R	N/R	N/R	01-OCT-20	01-OCT-20	1800 M bbl/y / 37770 bbl
T-0040	Distillates, FXR	N/R	N/R	N/R	01-JAN-73	01-JAN-73	34440 gal / 88 MM gal/y
T-0041	Distillates, FXR	N/R	N/R	N/R	01-JAN-73	01-JAN-73	34440 gal / 88 MM gal/y
T-0049	Slop, FXR	N/R	N/R	N/R	01-JAN-73	01-JAN-73	610 bbl / 3 MM gal/y
T-0055	Distillates, FXR	N/A	N/A	N/A	01-JAN-79	01-JAN-79	10200 bbl / 45 MM gal/y
T-0056	Naphthas, IFR	N/R	N/R	N/R	01-JAN-71	01-JAN-71	11600 bbl / 76 MM gal/y
T-0059	Carbon Black Oil, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	5140 bbl / 2 MM gal/y
T-0061	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	441000 gal / 42 MM gal/y

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
T-0063	Carbon Black Oil, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	10910 bbl / 4 MM gal/y
T-0065	Carbon Black Oil, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	10490 bbl / 30 MM gal/y
T-0075	Carbon Black Oil, FXR	N/R	N/R	N/R	01-JAN-03	01-JAN-03	793800 gal / 7 MM gal/y
T-0079	Isomerates, EFR	TBD	TBD	TBD	01-JAN-08	01-JAN-08	87420 bbl / 1226.4 MM bbl/y
T-0081 formerly PITCH-TK2	Asphalt/Pitch, FXR	N/R	N/R	N/R	01-JAN-10	01-JAN-10	65870 bbl / 420 MM gal/y
T-0082 formerly PITCH-TK3	Asphalt/Pitch, FXR	TBD	TBD	TBD	01-JAN-10	01-JAN-10	109660 bbl / 252 MM gal/y
T-0106	Distillates, IFR	N/R	N/R	N/R	01-JAN-71	01-JAN-71	100.38 MM gal/y / 100.38 MM gal/y
T-0107	Gasolines, IFR	N/R	N/R	N/R	01-JAN-71	01-JAN-71	25120 bbl / 170 MM gal/y
T-0108	Gasolines, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	22900 bbl / 177.47 MM bbl/y
T-0109	Gasolines, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	936600 gal / 152 MM gal/y
T-0110	Asphalt/Pitch, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2431800 gal / 59 MM gal/y
T-0111	Naphthas, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	382200 gal / 64 MM gal/y
T-0112	Naphthas, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	436800 gal / 74 MM gal/y

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
T-0117	Gasolines, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	588000 gal / 95 MM gal/y
T-0124	Gasolines, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	260400 gal / 42 MM gal/y
T-0400	Gas Oils, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	4 gal / 288 MM gal/y
T-0401	Gasolines, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2226000 gal / 220 MM gal/y
T-0402	Gasolines, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2226000 gal / 220 MM gal/y
T-0410	Asphalt Pitch, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1499400 gal / 36 MM gal/y
T-0411	Gasolines, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2184000 gal / 354 MM gal/y
T-0412	Gasolines, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2184000 gal / 354 MM gal/y
T-0413	Distillates, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	979800 gal / 88 MM gal/y
T-0415	Gasolines, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1255800 gal / 203 MM gal/y
T-0417	Gasolines, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	390600 gal / 63 MM gal/y
T-0418	Distillates, FXR	N/R	N/R	N/R	01-JAN-21	01-JAN-21	823200 gal / 176.43 MM gal/y
T-0419	Distillates, FXR	N/A	N/A	N/A	01-JAN-73	01-JAN-73	453600 gal / 43 MM gal/y

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
T-0420	Carbon Black Oil, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	436800 gal / 4 MM gal/y
T-0422	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	436800 gal / 42 MM gal/y
T-0423	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	441000 gal / 42 MM gal/y
T-0431	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2373000 gal / 220 MM gal/y
T-0432	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2310000 gal / 220 MM gal/y
T-0433	Gas Oils, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	33558000 gal / 220 MM gal/y
T-0434	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	3292800 gal / 317 MM gal/y
T-0435	Crude Oil, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	210000 gal / 110 MM gal/y
T-0437	Crude Oil, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	3570000 gal / 1545 MM gal/y
T-0438	Gas Oils, FXR	N/R	N/R	N/R	01-JUN-78	01-JUN-78	2276400 gal / 162 MM bbl/y
T-0439	Crude Oil, IFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	4536000 gal / 1545 MM gal/y
T-0450	Naphthas, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	3360000 gal / 569 MM gal/y
T-0451	BIODIESEL, IFR	N/R	N/R	N/R	09-SEP-15	09-SEP-15	6900 bbl / 949000 bbl/y

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
T-0452	Newethanol, IFR	N/R	N/R	N/R	09-SEP-15	09-SEP-15	6850 bbl / 142350 bbl/y
T-0737	Sour Water, EFR	N/R	N/R	N/R	01-JAN-09	01-JAN-09	932400 gal / 30660 gal/y
T-0801	Enhanced Biodegradation Tank T-0801	N/R	N/R	N/R	09-SEP-03	09-SEP-03	/
T-0802	Sour Water, EFR	Sour Water (HC) 10,000 gal	N/R	N/R	09-SEP-03	09-SEP-03	420000 gal / 30660 gal/y
T-0805	Flocculator				TBD		1200 gal/min /
T-0806	DAF Unit T-0806	N/R	N/R	N/R	14-FEB-11		1200 gal/min /
T-0809	DAF Surge Tank						1200 gal/min /
T-0814	Asphalt Pitch, FXR	N/R	N/R	N/R	01-JAN-05	01-JAN-05	11190 bbl / 11 MM bbl/y
T-0815	Distillates, FXR	N/R	N/R	N/R	01-APR-11		3580500 gal / 344 MM gal/y
T-0821 (formerly 5401)	External Floating Roof Tank	N/R	N/A	N/A	01-JAN-16	01-JAN-16	78580 bbl / 25.2 MM gal/y
T-0830	Stormwater Surge Tank				01-JAN-11		109660 bbl / 109660 bbl
T-0834	Distillates, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1680000 gal / 161 MM gal/y
T-0835	Distillates, EFR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	2562000 gal / 246 MM gal/y

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
T-0836	Enhanced Biodegradation Tank T-0836	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1200 gal/min /
T-0838	Distillates, FXR	N/R	N/R	N/R	09-SEP-03	09-SEP-03	1234800 gal / 118 MM gal/y
T-0896	DAF Unit T-0896	N/R	N/R	N/R	14-FEB-11		/ 1200 gal/min
T-0897	DAF Surge Open Sump				TBD		72000 g/h /
T-1225 (Formerly NAP-TK)	Naphthas, EFR	N/R	N/R	N/R	01-JAN-09	01-JAN-09	4200000 gal / 712 MM gal/y
T-1227(formerly PITCH-TK1	Asphalt/Pitch,FXR	N/R	N/R	N/R	01-JAN-09	01-JAN-09	33170 bbl / 126 MM gal/y
TL-2	Asphalt Truck Loading Rack #2	N/R	N/R	N/R	09-SEP-03	09-SEP-03	300 bbl/h / 300 bbl/h
TL-4 VCU	Vapor Combustion, secondary control for TL-4	N/R	N/R	N/R	15-OCT-18	15-OCT-18	/
TL-4 VRU	Fuels Truck Loading Rack	N/R	N/R	N/R	09-SEP-03	09-SEP-03	3571 bbl/h / 3571 bbl/h
TL-7	CBO/LCO Truck Loading Rack	N/R	N/R	N/R	09-SEP-03	09-SEP-03	681 bbl/h / 681 bbl/h
TLO-1	Asphalt Truck Loading and Off-Loading Rack #1	N/R	N/R	N/R	09-SEP-03	09-SEP-03	350 bbl/h / 350 bbl/h
TLO-20	Asphalt/Pitch Truck Loading Rack	N/R	N/R	N/R	09-SEP-03	09-SEP-03	600 bbl/h / 600 bbl/h

Unit No.	Source Description	Make	Model No.	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Operating Capacity
TRLO-9	Molten Sulfur Truck/Railcar Loading Rack	N/R	N/R	N/R	TBD		330 tons/d /
TVCU	Thermal Oxidizer Floating Roof Tank Landings Vapor Combustion Unit (VCU)	N/A		N/A	TBD		52 lb/h /
W-623	Depropanizer Column of Alkylation Unit	N/R	N/R	N/R	Not reported	Not reported	Not reported
Y-0001	TCC Cooling Tower	N/R	N/R	N/R	09-SEP-03	09-SEP-03	5000 gal/min / 5000 gal/min
Y-0002	South Alky Cooling Tower (Marley CT)	N/R	N/R	N/R	09-SEP-03	09-SEP-03	5000 gal/min / 5000 gal/min
Y-0008	North Alkyl Cooling Tower	N/R	N/R	N/R	09-SEP-03	09-SEP-03	12500 gal/min / 12500 gal/min
Y-0011	FCC & NP Cooling Tower	N/R	N/R	N/R	01-APR-11	01-APR-11	30000 gal/min / 30000 gal/min
Y-0012	Hydrogen Plants Cooling Tower	N/R	N/R	N/R	01-APR-11	01-APR-11	10000 gal/min / 10000 gal/min

1. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and MACT requirements.

Note: Serial numbers are not used since most equipment consists of field erected parts that are assembled on site and may have several “serial numbers” for various components. Heaters are the best example because each of the burners has a serial number but the heater as a whole does not have a single serial number. The heater as a whole is typically identified by our equipment number. There may also be a “project number” or “job number” from the manufacturer, but that can change if a heater is revamped at a later date such as when they modify the convection section to improve energy efficiency.

Table 106.A: Allowable Emissions[2,3,4]

Unit No.	NO_x (pph)	[1]NO_x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	PM (pph)	PM (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
B-0007	12.9	56.5	19.7	86.2	1.3	5.6	8.0	13.9	1.8	7.8	1.8	7.8	1.8	7.8	-	-
B-0008	12.9	56.5	19.7	86.2	1.3	5.6	8.0	13.9	1.8	7.8	1.8	7.8	1.8	7.8	-	-
B-0009	4.89	21.41	9.0	39.61	0.98	4.28	2.89	12.67	1.82	7.98	1.82	7.98	1.82	7.98	-	-
CT TT-0006	-	-	-	-	1.1	4.7	-	-	0.16	0.69	0.09	0.42	0.0004	0.0017	-	-
Collection Sump	-	-	-	-	0.02	0.08	-	-	-	-	-	-	-	-	-	-
D-0810 / 0811 & D-0808 / 0809 Filters	-	-	-	-	1.1E-7	4.7E-7	-	-	-	-	-	-	-	-	-	-
FCC Regenerator	34.9	101.8	121.8	106.7	15.7	68.6	27.9	61.0	25.0	109.5	22.9	95.6	22.9	95.6	-	-
FL-400	3.47	5.45	14.23	22.35	26.01	32.70	4.48	3.92	-	-	-	-	-	-	0.05	0.04
FL-401	1.66	1.85	6.82	7.58	19.72	2.51	57.35	5.88	-	-	-	-	-	-	0.61	0.06
FL-402	8.11	2.21	33.29	9.08	98.18	7.72	98.54	5.58	-	-	-	-	-	-	1.05	0.06
FL-403	2.74	2.53	11.25	10.38	32.54	13.57	1.10	0.76	-	-	-	-	-	-	0.01	0.01
FL-404	11.70	23.49	48.01	96.40	160.50	99.85	39.92	11.14	-	-	-	-	-	-	0.42	0.12
FUGITIVES[5]	-	-	-	-	*	476.8	-	-	-	-	-	-	-	-	-	-
Fixed Roof Tanks	-	-	-	-	*	181.5	-	-	-	-	-	-	-	-	0.72	0.07
Floating-Roof Tanks	-	-	-	-	*	134.7	-	-	-	-	-	-	-	-	0.0002	0.73
H-0009	4.0	17.3	4.0	17.6	0.3	1.2	1.6	2.8	0.4	1.6	0.4	1.6	0.4	1.6	-	-
H-0011	9.5	31.7	3.5	15.3	0.2	1.0	1.4	2.5	0.3	1.4	0.3	1.4	0.3	1.4	-	-
H-0018	3.5	15.3	2.9	12.8	0.2	0.8	1.2	2.1	0.3	1.2	0.3	1.2	0.3	1.2	-	-

Unit No.	NO_x (pph)	[1]NO_x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	PM (pph)	PM (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
H-0019	2.9	12.5	4.9	21.6	0.3	1.4	2.0	3.5	0.4	2.0	0.4	2.0	0.4	2.0	-	-
H-0020	4.8	21.1	8.2	36.1	0.5	2.4	3.4	5.8	0.8	3.3	0.8	3.3	0.8	3.3	-	-
H-0028	2.2	9.5	1.1	4.9	0.1	0.3	0.5	0.8	0.1	0.4	0.1	0.4	0.1	0.4	-	-
H-0030	3.2	14.0	3.8	16.9	0.3	1.1	1.6	2.7	0.4	1.5	0.4	1.5	0.4	1.5	-	-
H-0040	3.8	16.6	3.8	16.9	0.3	1.1	1.6	2.7	0.4	1.5	0.4	1.5	0.4	1.5	-	-
H-0312	4.6	20.2	3.2	14.0	0.2	0.9	1.3	2.3	0.3	1.3	0.3	1.3	0.3	1.3	-	-
H-0352, H-0353, H-0354	9.0	39.4	18.3	80.2	1.2	5.2	8.1	15.6	1.7	7.2	1.7	7.2	1.6	7.2	-	-
H-0355	2.5	11.0	2.6	11.2	0.2	0.7	1.1	2.2	0.2	1.0	0.2	1.0	0.2	1.0	-	-
H-0362, H-0363, H-0364	6.9	30.1	11.4	50.1	0.8	3.3	5.0	9.7	1.0	4.5	1.0	4.5	1.0	4.5	-	-
H-0421	2.4	10.6	2.5	10.8	0.2	0.7	1.0	1.7	0.2	1.0	0.2	1.0	0.2	1.0	-	-
H-0464	0.5	2.3	0.9	3.8	0.1	0.3	0.4	0.6	0.1	0.4	0.1	0.4	0.1	0.4	-	-
H-0473	6.5	28.5	27.7	121.2	0.1	0.6	30.0	81.8	3.5	8.4	3.5	8.4	3.5	8.4	0.3	1.4
H-0600	4.7	20.4	7.7	33.7	0.5	2.2	3.1	5.4	0.7	3.0	0.7	3.0	0.7	3.0	-	-
H-0601	3.5	15.4	7.1	31.3	0.5	2.0	2.9	5.0	0.6	2.8	0.6	2.8	0.6	2.8	-	-
H-2421	1.2	5.3	2.5	10.8	0.2	0.7	1.0	1.6	0.2	1.0	0.2	1.0	0.2	1.0	-	-
H-2501	3.6	15.8	7.2	31.5	0.7	3.2	4.4	7.2	1.0	4.3	1.0	4.3	1.0	4.3	-	-
H-3101	0.3	1.4	1.0	4.3	0.1	0.3	0.4	0.7	0.1	0.4	0.1	0.4	0.1	0.4	-	-
H-3103	6.5	28.5	15.0	65.8	0.10	0.60	30.0	82.2	3.4	8.4	3.4	8.4	3.4	8.4	0.3	1.4
H-3402	1.6	6.8	4.7	20.5	0.3	1.4	1.9	3.1	0.4	1.9	0.4	1.9	0.4	1.9	-	-
H-3403	1.0	4.2	2.9	12.8	0.2	0.8	1.2	1.9	0.3	1.2	0.3	1.2	0.3	1.2	-	-
H-5401	0.77	3.4	0.64	2.8	0.12	0.5	0.72	1.3	0.2	0.7	0.2	0.7	0.2	0.7	-	-
H-8801, H-8802	8.7	38.0	13.9	60.9	0.9	4.0	2.8	5.0	1.3	5.5	1.3	5.5	1.3	5.5	-	-
H-9851	4.21	18.45	20.22	88.6	2.02	8.84	6.32	11.0	2.8	12.3	2.8	12.3	2.8	12.3	-	-

Unit No.	**NO_x (pph)**	**[1]NO_x (tpy)**	**CO (pph)**	**CO (tpy)**	**VOC (pph)**	**VOC (tpy)**	**SO_2 (pph)**	**SO_2 (tpy)**	**PM (pph)**	**PM (tpy)**	**PM_{10} (pph)**	**PM_{10} (tpy)**	**$PM_{2.5}$ (pph)**	**$PM_{2.5}$ (tpy)**	**H_2S (pph)**	**H_2S (tpy)**
MG-0001	1.8	8.1	1.6	7.1	1.8	8.1	0.003	0.02	0.09	0.4	0.09	0.4	0.09	0.4	-	-
MG-0002	1.8	8.1	1.6	7.1	1.8	8.1	0.003	0.02	0.09	0.4	0.09	0.4	0.09	0.4	-	-
MG-0003	0.09	0.4	1.1	5.0	0.04	0.2	0.003	0.02	0.09	0.4	0.09	0.4	0.09	0.4	-	-
RLO-19	-	-	-	-	65.6	11.7	-	-	-	-	-	-	-	-	0.03	0.003
RLO-8	-	-	-	-	19.9	6.4	-	-	-	-	-	-	-	-	0.01	0.001
S-1/T-1 (API 894-895)[9]	-	-	-	-	0.0001	0.0006	-	-	-	-	-	-	-	-	-	-
[6]Tanks (all)	-	-	-	-	*	316.2	-	-	-	-	-	-	-	-	0.72	0.80
T-0801/T-0836	-	-	-	-	1.34	5.85	-	-	-	-	-	-	-	-	-	-
T-0805 Flocculator	-	-	-	-	0.00	0.01	-	-	-	-	-	-	-	-	-	-
T-0896/T-0806 DAF	-	-	-	-	1.64	7.18	-	-	-	-	-	-	-	-	-	-
T-0809 DAF Surge tank	-	-	-	-	0.0004	0.02	-	-	-	-	-	-	-	-	-	-
T-0830 Storm water surge tank	-	-	-	-	0.0005	0.0024	-	-	-	-	-	-	-	-	-	-
T-0897 DAF Surge open sump	-	-	-	-	0.01	0.02	-	-	-	-	-	-	-	-	-	-
[7]TL-2	-	-	-	-	12.5	3.8	-	-	-	-	-	-	-	-	0.01	0.002
TL-4 VCU	1.97	1.23	1.97	1.22	0.05	0.001	0.51	0.014	0.11	0.066	0.11	0.066	0.11	0.066	-	-
TL-4	-	-	-	-	4.5	4.8	-	-	-	-	-	-	-	-	0.02	0.03
TL-7	-	-	-	-	12.2	1.9	-	-	-	-	-	-	-	-	<	<
TLO-1	-	-	-	-	14.6	14.5	-	-	-	-	-	-	-	-	0.01	0.01
TLO-20	-	-	-	-	25.0	3.8	-	-	-	-	-	-	-	-	0.01	0.002

Unit No.	NO_x (pph)	[1]NO_x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	PM (pph)	PM (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
TRLO-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.005	0.02
[8]Y-0001	-	-	-	-	0.2	0.9	-	-	0.3	1.2	0.16	0.69	0.0006	0.0026	-	-
Y-0002	-	-	-	-	0.2	0.9	-	-	0.3	1.2	0.2	0.7	0.001	0.003	-	-
Y-0008	-	-	-	-	0.5	2.3	-	-	0.6	2.7	0.4	1.6	0.002	0.007	-	-
Y-0011	-	-	-	-	1.3	5.5	-	-	0.5	2.3	0.3	1.4	0.002	0.005	-	-
Y-0012	-	-	-	-	0.4	1.8	-	-	0.2	0.8	0.1	0.5	0.0004	0.002	-	-

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2.
2 For Title V facilities, the Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
3 Compliance with emergency flare emission limits is demonstrated by limiting combustion to pilot and/or purge gas only.
"-" indicates the application represented emissions of this pollutant are not expected.
"<" indicates that the application represented the uncontrolled mass emission rates are less than 1.0 pph or 1.0 tpy for this emissions unit and this air pollutant. Although modeled at the calculated value, the Department has determined compliance demonstrations of these very small calculated values are either technically or practically infeasible. For limits expressed as "<", actual emissions in excess of 1.0 pph and 1.0 tpy are excess emissions to be reported per General Condition B110.F.
"*" indicates hourly emission limits are not appropriate for this operating situation.
4 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110.F.
5 Fugitives are broken out by specific unit type in Table 106.F.
6 Tanks are summarized and broken out in Table 106.E
7 Loading racks are also broken out in Table 106.G
8 Cooling towers are also broken out in Table 106.H
9 Miscellaneous oil and water separators are also broken out in Table 106.I.

TABLE 106.B(1)

VAPOR PRESSURE LIMITATIONS FOR REFINERY NON-COMBUSTION SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOC)

INTERNAL FLOATING ROOF STORAGE TANKS

Tank No.	Typical Liquid Stored	Most Volatile Category of Allowable Liquids to be Stored[1]	Max Vapor Pressure (psia) of Most Volatile Liquid at Max Temp.
T-0011	Gasolines	High Vapor Pressure[2]	11.1
T-0012	Gasolines	High Vapor Pressure[2]	11.1
T-0020	Gasolines	High Vapor Pressure[2]	11.1
T-0021	Gasolines	High Vapor Pressure[2]	11.1
T-0022	Gasolines	High Vapor Pressure[2]	11.1
T-0023	Gasolines	High Vapor Pressure[2]	11.1
T-0056	Naphthas	High Vapor Pressure[2]	11.1
T-0106	Sour Water	High Vapor Pressure[2]	11.1
T-0107	Gasolines	High Vapor Pressure[2]	11.1
T-0108	Gasolines	High Vapor Pressure[2]	11.1
T-0109	Gasolines	High Vapor Pressure[2]	11.1
T-0111	Gasolines	High Vapor Pressure[2]	11.1
T-0112	Gasolines	High Vapor Pressure[2]	11.1
T-0124	Gasolines	High Vapor Pressure[2]	11.1
T-0413	Distillates	High Vapor Pressure[2]	11.1
T-0415	Gasolines	High Vapor Pressure[2]	11.1
T-0417	Gasolines	High Vapor Pressure[2]	11.1
T-0418	Distillates	Low Vapor Pressure[2]	11.1
T-0439	Naphtha	High Vapor Pressure[2]	11.1

Tank No.	Typical Liquid Stored	Most Volatile Category of Allowable Liquids to be Stored[1]	Max Vapor Pressure (psia) of Most Volatile Liquid at Max Temp.
T-0451	Biodiesel	High Vapor Pressure[2]	11.1
T-0452	Ethanol	High Vapor Pressure[2]	11.1

[1] Liquids in lower volatility categories may also be stored (i.e., tanks allowed to store high vapor pressure category liquids can also store moderate and low vapor pressure category liquids; tanks allowed to store moderate vapor pressure category liquids can also store low vapor pressure category liquids).

[2] High Vapor Pressure Liquids include: Crude, Naphtha (raw or treated), Unleaded Gasolines (sub-grade, regular, premium, and other blends), Alkylate, Reformate, FCC Gasoline, Ethanol, Isomerate, Straight Run Gasoline, and other refinery feedstocks, intermediates, products, byproducts, and wastes having a max vapor pressure of 11.1 psia or less under actual storage conditions.

TABLE 106.B(2)

VAPOR PRESSURE LIMITATIONS FOR REFINERY NON-COMBUSTION SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOC)

EXTERNAL FLOATING ROOF STORAGE TANKS

Tank No.	Typical Liquid Stored	Most Volatile Category of Allowable Liquids to be Stored[1]	Max Vapor Pressure (psia) of Most Volatile Liquid at Max Temp.
T-0079	Gasolines	High Vapor Pressure[2]	11.1
T-0117	Gasolines	High Vapor Pressure[2]	11.1
T-0401	Gasolines	High Vapor Pressure[2]	11.1
T-0402	Gasolines	High Vapor Pressure[2]	11.1
T-0411	Gasolines	High Vapor Pressure[2]	11.1
T-0412	Gasolines	High Vapor Pressure[2]	11.1
T-0435	Sour Water	High Vapor Pressure[2]	11.1
T-0437	Crude Oil	High Vapor Pressure[2]	11.1
T-0450	Naphthas	High Vapor Pressure[2]	11.1
T-0737	Sour Water	High Vapor Pressure[2]	11.1
T-0802	Sour Water	High Vapor Pressure[2]	11.1

Tank No.	**Typical Liquid Stored**	**Most Volatile Category of Allowable Liquids to be Stored[1]**	**Max Vapor Pressure (psia) of Most Volatile Liquid at Max Temp.**
T-0834	Distillates	Moderate Vapor Pressure[3]	1.9
T-0835	Distillates	High Vapor Pressure[2]	11.1
T-0821	Gasolines	High Vapor Pressure[2]	11.1
T-1225	Crude Oil	High Vapor Pressure[2]	11.1

[1] Liquids in lower volatility categories may also be stored (i.e., tanks allowed to store high vapor pressure category liquids can also store moderate and low vapor pressure category liquids; tanks allowed to store moderate vapor pressure category liquids can also store low vapor pressure category liquids).

[2] High Vapor Pressure Liquids include: Crude, Naphtha (raw or treated), Unleaded Gasolines (sub-grade, regular, premium, and other blends), Alkylate, Reformate, FCC Gasoline, Ethanol, Isomerate, Straight Run Gasoline, and other refinery feedstocks, intermediates, products, byproducts, and wastes having a max vapor pressure of 11.1 psia or less under actual storage conditions.

[3] Moderate Vapor Pressure Liquids include: Desulfurized Naphtha (Splitter Bottoms), Light Slop, and other refinery feedstocks, intermediates, products, byproducts, and wastes having a max vapor pressure of 1.9 psia or less under actual storage conditions.

TABLE 106.C

VAPOR PRESSURE LIMITATIONS FOR REFINERY NON-COMBUSTION SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOCs)

FIXED ROOF STORAGE TANKS

Tank No.	Typical Liquid Stored	Most Volatile Category of Allowable Liquids to be Stored[1]	Max Vapor Pressure (psia) of Most Volatile Liquid at Max Temp.
T-0040	Spent Caustic	Low Vapor Pressure[4]	0.75
T-0041	Spent Caustic	Low Vapor Pressure[4]	0.75
T-0110	Asphalt/Pitch	Low Vapor Pressure[4]	0.75
T-0400	Gas Oils	Low Vapor Pressure[4]	0.75
T-0410	Asphalt/Pitch	Low Vapor Pressure[4]	0.75
T-0419	Distillates	Low Vapor Pressure[4]	0.5
T-0420	Fuel Oil	Low Vapor Pressure[4]	0.75
T-0422	Black Oil	Low Vapor Pressure[4]	0.75
T-0423	Black Oil	Low Vapor Pressure[4]	0.75
T-0431	Fuel Oil	Low Vapor Pressure[4]	0.75
T-0432	Fuel Oil	Low Vapor Pressure[4]	0.75

TABLE 106.C –cont'd
EMISSION LIMITATIONS FOR REFINERY NON-COMBUSTION SOURCES
OF VOLATILE ORGANIC COMPOUNDS (VOCs)

FIXED ROOF STORAGE TANKS

Tank No.	Typical Liquid Stored	Most Volatile Category of Allowable Liquids to be Stored[1]	Max Vapor Pressure (psia) of Most Volatile Liquid at Max Temp.
T-0049	Slop	Moderate Vapor Pressure[3]	1.9
T-0055	Distillates	Low Vapor Pressure[4]	0.75
T-0059	Distillates	Low Vapor Pressure[4]	0.75
T-0061	Distillates	Low Vapor Pressure[4]	0.75
T-0063	Black Oil	Low Vapor Pressure[4]	0.75
T-0065	Black Oil	Low Vapor Pressure[4]	0.75
T-0075	Black Oil	Low Vapor Pressure[4]	0.75
T-0081	Asphalt/Pitch	Low Vapor Pressure[4]	0.75
T-0082	Asphalt/Pitch	Low Vapor Pressure[4]	0.75
T-0433	Gas Oils	Low Vapor Pressure[4]	0.75
T-0434	Distillates	Low Vapor Pressure[4]	0.75
T-0438	Gas Oils	Low Vapor Pressure[4]	0.75
T-0814	Asphalt/Pitch	Low Vapor Pressure[4]	0.75
T-0815	Distillates	Low Vapor Pressure[4]	0.5
T-0838	Distillates	Low Vapor Pressure[4]	0.75
T-1227	Asphalt/Pitch	Low Vapor Pressure[4]	0.75

[1] Liquids in lower volatility categories may also be stored (i.e., tanks allowed to store high vapor pressure category liquids can also store moderate and low vapor pressure category liquids; tanks allowed to store moderate vapor pressure category liquids can also store low vapor pressure category liquids).

[2] High Vapor Pressure Liquids include: Crude, Naphtha (raw or treated), Unleaded Gasolines (sub-grade, regular, premium, and other blends), Alkylate, Reformate, FCC Gasoline, Ethanol, Isomerate, Straight Run Gasoline, and other refinery feedstocks, intermediates, products, byproducts, and wastes having a max vapor pressure of 11.1 psia or less under actual storage conditions.

[3] Moderate Vapor Pressure Liquids include: Desulfurized Naphtha (Splitter Bottoms), Light Slop, and other refinery feedstocks, intermediates, products, byproducts, and wastes having a max vapor pressure of 1.9 psia or less under actual storage conditions, or for the material stored in tank T-0914 having a max vapor pressure of less than 0.75 psia (NSPS Kb threshold) under actual storage conditions.

[4] Low Vapor Pressure Liquids include: Diesel (raw or finished), Kerosene (raw or finished), JP-8, CBO, LCO, Slurry, Heavy Slop, Cutback Asphalt, Cutter, VGO, AGO, and other refinery feedstocks, intermediates, products, byproducts, and wastes having a max vapor pressure less than 0.5 psia under actual storage conditions.

TABLE 106.D – STORAGE TANK THROUGHPUT AND TEMPERATURE LIMITS

Material	Throughput (bbl/yr)	Maximum Storage Temperature (ºF)
Asphalt/Pitch	30,872,000	510
Black Oil	3,305,356	250
Crude Oil	76,212,000	Ambient
Distillate	161,470,540	Ambient
Gas Oil	25,059,500	310
Gasoline (includes isomerates)	70,638,600	Ambient
Naphtha	47,632,500	Ambient
Slop	1,128,790	Ambient
Sour Water	15,030,000	Ambient
BioDiesel	949,000	Ambient
Ethanol	142,350	Ambient
Fuel Oil	10,609,022	Ambient
Spent Caustic	56,000	Ambient
Ground Water	7,200	Ambient

TABLE 106.E– STORAGE TANK VOC AND H_2S EMISSION LIMITS[1]

Tank Type	VOC Emission Rate (tpy)	H_2S Emission Rate (tpy)
Fixed-Roof	181.5	0.07
Floating-Roof	134.7	0.73
Total Tanks (as in Table 106.A)	**316.2**	**0.80**

[1] See Specific Condition A203.E for monitoring, recordkeeping and reporting requirements.

Table 106.F

[1]EMISSIONS LIMITS FOR REFINERY NON-COMBUSTION SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOC*)* FUGITIVE EMISSIONS FROM EQUIPMENT LEAKS

FUGITIVES UNIT ID	PROCESS UNIT DESCRIPTION	VOC (lb/hr)	VOC (tons/yr)
FUG-02-SP CRUDE	South Division Crude Unit	7.79	34.11
FUG-06-NHDU	Naphtha HDS Unit 06	4.11	18.02
FUG-07-N AMINE	Amine Unit-Treating/Regen. [2]	6.46	28.31
FUG-07-SWS1	Sour Water Stripper	0.51	2.24
FUG-08-TRUCK RK	Loading Racks	1.98	8.68
FUG-09-N ALKY	North Alkylation Unit (New-Inside battery limits)	6.34	27.77
FUG-10-FCC	FCC w/CVS	8.06	35.29
FUG-13-NHDU	Naphtha HDS Unit 13	5.54	24.26
FUG-18-LSR MEROX TRT	Merox/Merichem Treating Units	0.18	0.77
FUG-19-NAPHTHA	Naptha Merox	0.21	0.93
FUG-20-ISOM	BenFree Unit	1.70	7.45
FUG-21-SP VACUUM	Flasher/Vacuum Unit	2.40	10.49
FUG-25-ROSE-2	ROSE Unit	4.61	20.21
FUG-29-BLENDER/TK FARM	Light Oil Tankage	8.99	39.36
FUG-30-SRU2/TGTU	SRU2/SWS w/CVS	2.73	11.97
FUG-31-SRU3/TGTU3/TGI3	SRU3 Unit	2.69	11.76
FUG-33-DIST HDU	Diesel HDS Unit w/CVS	8.66	37.93
FUG-34-HYDROCRACKER	WX Hydrocracker	3.89	17.04

FUGITIVES UNIT ID	PROCESS UNIT DESCRIPTION	VOC (lb/hr)	VOC (tons/yr)
FUG-35-SAT GAS	Saturates Gas Plant	4.52	19.80
FUG-36-RO	Reverse Osmosis	0.07	0.31
FUG-37-NP-UT	North Plant Utilities	1.34	5.87
FUG-41-PBC	PBC Unit	0.81	3.56
FUG-43-S ALKY	South Alky Unit (W-76)	0.63	2.78
FUG-44-DIST-HDU	Gas Oil Hydrotreater (incl. CVS)	3.87	16.97
FUG-45-DIST-HDU	Gas Oil Hydrotreater (incl. CVS)	1.51	6.60
FUG-54-PRIMEG	Prime G Unit	4.54	19.86
FUG-63-H2 PLANT-1	Hydrogen Plant	0.56	2.47
FUG-64-H2 PLANT-2	Hydrogen Plant	1.27	5.56
FUG-70-CCR	CCR Reformer (w/in battery limits)	8.64	37.83
FUG-73-SP UTIL	Utilities	0.28	1.24
FUG-80-WWTP CVS	Oil/Water Separator	3.00	13.15
FUG-LPG	LPG Storage System	0.97	4.26
TOTAL FUGITIVES	**For Table 106.A**	**108.9**	**476.8**

1 Minor changes within the facility to piping and components that affect fugitive VOC emission sources shall be updated and added during the next available significant modification to the NSR permit.

Table 106.G EMISSION LIMITS FOR REFINERY NON-COMBUSTION SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOCs)

LOADING RACKS and MISCELLANEOUS SOURCES

Source ID	Description	Material Loaded	Hourly Throughput	Annual Throughput	VOC Emissions	
			bbl/hr	bbl/yr	lb/hr	ton/yr
TLO-1	Asphalt Truck Loading and Off-Loading Rack #1	Asphalt/Pitch	350	3,662,756	**14.6**	**14.5**
TL-2	Asphalt Truck Loading Rack #2	Asphalt/Pitch	300	950,000	**12.5**	**3.8**
TL-4[a]	Fuels Truck Loading Rack	Gasoline	1,214	2,555,000		
		Diesel	2,000	17,520,000		
		Jet Fuel	357	1,021,718		
		TOTAL VOC			**4.6**	**4.8**
TL-7	CBO/LCO Truck Loading Rack	Carbon Black Oil	300	500,808		
		Light Cycle Oil	381	20,119		
		TOTAL VOC			**12.2**	**1.9**
RLO-8	Railcar Loading & Off-Loading Rack	Carbon Black Oil	800	455,488		
		Diesel	200	1,144,000		
		Jet Fuel	200	1,144,000		
		Asphalt	300	750,000		
		TOTAL VOC			**19.9**	**6.4**
RLO-19[a]	Railcar Loading & Off-Loading Rack	Asphalt/Pitch	1,575	1,394,250		
		Gas Oil	1,575	3,057,600		
		Fuel Oil	800	4,968,600		
		TOTAL VOC			**65.6**	**11.7**

Table 106.G EMISSION LIMITS FOR REFINERY NON-COMBUSTION SOURCES OF VOLATILE ORGANIC COMPOUNDS (VOCs)

LOADING RACKS and MISCELLANEOUS SOURCES

TLO-20	Asphalt/Pitch Truck Loading Rack	Asphalt/Pitch	600	950,000	**25.0**	**3.8**
FUG-ODOR	Odor Controlling Atomizer		1250 ml/hr	10,950 liters/yr	**0.5**	**2.0**
	Total (individual units are listed in Table 106.A)					**48.9**

a Controlled emission rates. The previous controlled rate was set by the terms of the consent agreement between Navajo Refining Co. and the Department executed January 28, 1994. The agreement required that the incinerator have a minimum 90% destruction efficiency for gasoline loading and a minimum 80% destruction efficiency for diesel fuel loading or Jet A fuel loading. This was achieved by a vapor combustor. That vapor combustor device was replaced with a carbon adsorption system, a vapor recovery unit (VRU). Then a vapor combustion unit (VCU) was added (per NSR 195-M37R2) as an alternate control device. Both the VRU and VCU must be compliant with MACT Subpart R, as subject per MACT Subpart CC.

Table 106.H
EMISSION LIMITS FOR REFINERY NON-COMBUSTION SOURCES
OF VOLATILE ORGANIC COMPOUMDS and PM
COOLING TOWERS

Source ID	VOC lb/hr	VOC tons/yr	PM (lb/hr)	PM (tons/yr)
Y-0001	0.2	0.9	0.3	1.2
Y-0002	0.2	0.9	0.3	1.2
Y-0008[a]	0.5	2.3	0.6	2.7
Y-0011	1.3	5.5	0.5	2.3
Y-0012	0.4	1.8	0.2	0.8
CT TT-0006	1.1	4.7	0.2	0.7
Total (individual units are listed in Table 106.A)	3.7	16.1	2.1	8.9

Table 106.I
EMISSION LIMITS FOR REFINERY NON-COMBUSTION SOURCES
OF VOLATILE ORGANIC COMPOUNDS (VOCs)
API OIL/WATER SEPARATORS

Equipment ID	Emission Point ID	Description	Maximum Hourly VOC Emission Rate (lb/hr)	Average Annual VOC Emission Rate (tons/yr)
S-1/T-1 (MAIN API-0894/0895)	D-0829/0830	Above Ground API Oil-Water Separators and enclosed drain system.	0.0001	0.0006
T-0801/T-0836	T-0801/T-0836	Enhanced Biodegradation Tanks T-0801 and T-0836	1.34	5.58
T-0805	T-0805	Flocculator	0.00	0.01
T-0896/T-0806	T-0896/T-0806	DAF Units T-0896/T-0806	1.64	7.18
T-0809	T-0809	DAF Unit T-0809 Surge tank	0.0004	0.02
T-0830	T-0830	Storm water surge tank T-0830	0.0005	0.0024
T-0897	T-0897	DAF Unit T-0897 Open surge sump	0.01	0.02
Total (individual units are listed in Table 106.A)			3.0	12.8

Table 107.A: Allowable SSM and Malfunction Units, Activities, and Emission Limits.[2]

Unit No.	NO_x (pph)	[1]NO_x (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	PM (pph)	PM (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)	H_2S (pph)	H_2S (tpy)
Flare Malf Cap		10.0		10.0		10.0		10.0								1.0
SSM FL-HEP-PORT	11.56	0.09	50.12	0.38	106.7	0.8	0.11	0.001	-	-	-	-	-	-	0.001	<
SSM Flare Cap	162.9	18.3	1243.0	77.0	1376.3	68.7	1133.4	14.9	-	-	-	-	-	-	12.4	0.16
SSM H-0473	6.5	0.03	27.7	0.12	0.1	0.0005	135.0	0.38	11.53	0.03	11.53	0.03	11.53	0.03	1.44	0.004
SSM H-3103	6.5	0.03	15.0	0.07	0.1	0.0005	50.0	0.23	4.93	0.02	4.93	0.02	4.93	0.02	0.53	0.002
SSM H-9851	11.23	1.35	20.2	2.4	2.0	0.2	6.32	0.3	2.8	0.3	2.8	0.3	2.8	0.3	-	-
SSM Pigging[1]	-	-	-	-	24.7	0.64	-	-	-	-	-	-	-	-	-	-
SSM T-0737[1]	-	-	-	-	0.24	0.004	-	-	-	-	-	-	-	-	0.02	<
SSM Tanks Misc[1]	-	-	-	-	51.9	8.1	-	-	-	-	-	-	-	-	0.02	0.004
SSM Tanks VCU	0.17	0.037	0.17	0.033	2.6	0.21	0.05	0.02	0.009	0.002	0.009	0.002	0.009	0.002	0.001	<
SSM-2 MISC	17.0	1.9	127.1	7.8	137.7	6.9	129.3	1.6	0.06	0.02	0.06	0.02	0.06	0.02	0.7	0.1

1. This authorization does not include VOC combustion emissions.
   "<" indicates the application represented that uncontrolled venting, blowdown, or pigging emissions of H2S are less than 0.1 pph or 0.44 tpy. Allowable limits, monitoring, and recordkeeping are not required on this level of H2S venting, blowdown, or pigging emissions.
2. To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110.F.