SETTLEMENT AGREEMENT AND RELEASE

This Settlement Agreement and Release (Agreement) is entered into by and between Flint Hills Resources Corpus Christi, LLC (FHR), Citizens for Environmental Justice (CFEJ), James and Roberta Miller ("the Millers"), and Environmental Integrity Project (EIP) (collectively referred to as the Parties).

RECITALS

A. FHR is proposing changes to its Corpus Christi West Refinery located in Corpus Christi, Nueces County, Texas (Domestic Crude Project). Some of the proposed changes require an air permit under the federal Clean Air Act's (CAA) Prevention of Significant Deterioration (PSD) program from the U.S. Environmental Protection Agency (USEPA) and a state air pre-construction permit from the Texas Commission for Environmental Quality (TCEQ). The requirements for construction issued by USEPA and TCEQ will ultimately be made a part of the Corpus Christi West Refinery's Title V air operating permit. In addition, FHR will be performing voluntary emission reduction projects, which will be authorized by TCEQ through other state permit authorizations.

B. In December 2012, FHR submitted a PSD construction permit application to the USEPA and a state pre-construction permit application to TCEQ for the Domestic Crude Project.

C. In March 2013, CFEJ and EIP filed comments and a request for a contested case hearing with the TCEQ regarding the state pre-construction permit application.

D. FHR, the University of Texas School of Law Environmental Clinic ("Environmental Clinic") on behalf of the Millers and CFEJ, and EIP engaged in settlement discussions regarding the Domestic Crude Project.

E. CFEJ is a nonprofit organization dedicated to protecting and improving environmental quality in Corpus Christi, Texas.

F. The Millers are members of CFEJ. The Millers reside at 1906 Tuloso Road, Corpus Christi, TX, 78409.

G. The Environmental Clinic is a law school clinic at the University of Texas School of Law in which second and third year law students work under faculty supervision on cases and projects that will improve public health and environmental quality for low-income communities. The Environmental Clinic is representing CFEJ and the Millers.

H. EIP is a nonpartisan, nonprofit organization dedicated to effective enforcement of environmental laws. EIP has offices in Washington, D.C. and Austin, Texas.

I. FHR is a Delaware limited liability company and operates two petroleum refineries in Texas.

J. The Parties have engaged in arms-length discussions to address and resolve the issues raised by CFEJ and EIP, and they have come to a mutual agreement with respect to certain permit application content, proposed permit terms and conditions, and other voluntary commitments to be undertaken by FHR that are beneficial to public welfare and the environment. The Parties recognize that USEPA and TCEQ are the permitting authorities and nothing in this Agreement does or is intended to bind USEPA or TCEQ or require them to deviate from their normal processes. The

Parties believe that their Agreement will facilitate USEPA's and TCEQ's processing of the permit applications.

K. The Parties wish to enter into this Agreement to memorialize the terms of their mutual agreement and so that the Domestic Crude Project may move forward without delay.

AGREEMENT AND RELEASE

NOW, THEREFORE, for the good and sufficient consideration set forth below, the Parties agree as follows:

1. Permit Terms and Conditions.

   a. FHR will use commercially reasonable efforts to include the substance of the permit terms and conditions set forth in this paragraph 1 in the Domestic Crude Project PSD construction permit to be issued by USEPA, the state pre-construction permit to be issued by TCEQ, or other state permit authorizations as appropriate. To the extent USEPA or TCEQ decline to include any term or condition set forth in this paragraph 1, FHR agrees to comply with the excluded terms and conditions set forth in this paragraph 1 as a condition of this Agreement.

   b. Unless lower limits are established in any final permit issued by USEPA or TCEQ, FHR agrees to the ton per year CO_2 limits on each new and modified heater, not to exceed:

      i. Saturated Gas #3 Hot Oil Heater (SATGASHTR): 230,610 tons CO_2e per 365-days (rolling)

ii. CCR Hot Oil Heater (39BA3901, EPN JJ-4): 70,478 tons CO_2e total per 365-days (rolling)

c. In order to demonstrate compliance with the Saturated Gas #3 Hot Oil Heater and CCR Hot Oil Heater 365-day CO_2e limits, FHR agrees to use either Tier 3 or Tier 4 calculation methodologies, as described by 40 C.F.R. § 98.33, to calculate the CO_2 emissions and the appropriate methodologies as described by 40 C.F.R. § 98.33(c) to calculate the CH_4 and N_2O emissions.

d. FHR shall report, in its Quarterly Excess Emissions and CEMS Report, any exceedances of the rolling 365-day average of CO_2e emissions for the Saturated Gas #3 Hot Oil Heater and CCR Hot Oil Heater.

e. FHR agrees to limit the stack gas exit temperature on the Saturated Gas #3 Hot Oil Heater and the CCR Hot Oil Heater to 350 degrees F on a 365-day rolling average basis, excluding periods of heater start-up, shutdown, and low firing rates (<60% of maximum design capacity).

f. In order to demonstrate compliance with the Saturated Gas #3 Hot Oil Heater and the CCR Hot Oil Heater stack gas exit temperature limit, FHR agrees as follows:

i. FHR will continuously monitor each heater's stack exit temperature. Stack exit temperatures recorded during periods of monitoring instrumentation malfunction and maintenance shall be excluded from consideration provided monitoring operation downtime does not exceed 5% of any 365-day rolling period.

ii. Monitoring operation downtime in excess of 5% of any 365-day period shall be reported in FHR's Quarterly Excess Emissions and CEMs Report.

iii. A stack exit temperature above 350 degrees F on a 24 hour average basis, excluding periods of heater start-up, shutdown, and low firing rates (<60% of maximum design capacity), is an excursion that requires corrective action. The 24 hour average stack exit temperature for each heater shall be determined using the following formula:

$$24\ hour\ Average\ Temperature = \frac{Sum\ of\ Valid\ Temperature\ Readings\ in\ a\ 24-hour\ Period}{Quantity\ of\ Valid\ Temperature\ Readings\ in\ a\ 24-hour\ Period}$$

iv. Upon detecting an excursion, FHR will restore operation of the heater to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing the period of any excursion and taking any necessary corrective actions to restore normal operation. Such actions may include heater adjustments or equipment maintenance.

v. FHR will report excursions and a summary of response actions in FHR's Quarterly Excess Emissions and CEMS Report.

vi. Excursions are events that require a response. Excursions shall not be considered out of compliance with the limit unless the stack gas exit temperature is above 350 degrees F on a 365-day rolling average basis, excluding periods of heater start-up, shutdown, and low firing

rates (<60% of maximum design capacity). The 365-day rolling average stack exit temperature for each heater shall be determined using the following formula:

$$365\ day\ Average\ Tempertature = \frac{Sum\ of\ Valid\ Temperature\ Readings\ in\ a\ 365\ day\ Period}{Quantity\ of\ of\ Valid\ Temperature\ Readings\ in\ a\ 365\ day\ Period}$$

vii. FHR will limit excess O_2 in the Saturated Gas #3 Hot Oil Heater and the CCR Hot Oil Heater exhaust to 4% or less on a 365-day rolling average basis, excluding periods of heater start-up, shutdown, and low firing rates (<60% of maximum design capacity). The 365-day rolling average excess O_2 level in each heater's exhaust shall be determined using the following formula:

$$365\ day\ average\ excess\ O2\ level = \frac{Sum\ of\ Valid\ excess\ O2\ readings\ in\ a\ 365\ day\ Period}{Quantity\ of\ of\ Valid\ excess\ O2\ Readings\ in\ a\ 365\ day\ Period}$$

g. FHR will limit NOx to 0.0075 lbs/mmBtu on a 365-day rolling average, for the Saturated Gas #3 Hot Oil Heater and the CCR Hot Oil Heater, and will limit ammonia slip from the heater SCR systems to 10 ppm on an hourly average.

h. FHR will install and operate CEMS to monitor NOx, CO, and O_2 on the CCR Hot Oil Heater and the Saturated Gas #3 Hot Oil Heater and SCR systems for those heaters.

i. FHR will limit allowable emissions for the following tanks to: 08FB136 – 6.85 tpy VOC; 08FB118 – 12.36 tpy VOC; 15FB620 – 10.81 tpy VOC.

j. FHR will submit an alteration request for Flexible Permit No. 8803A, requesting the removal of existing allowables for tanks 08FB102, 08FB117 and 08FB401 and reduction of the existing VOC allowable for tank 08FB18 in Flexible Permit No. 8803A from 22.35 tpy to 4.57 tpy. FHR will limit VOC emissions from tank 08FB18 to 4.57 tpy. The total amount of additional emissions reductions and associated reductions in the VOC emissions cap in Permit No. 8803A from these proposed changes is 154 TPY.

k. To the extent these are not less stringent than any enforceable requirements as a result of a Consent Decree with EPA, FHR agrees to the following limits:

    i. Individual hourly and annual unit specific limits for criteria pollutants for all new, modified, and affected sources addressed in the West Domestic Crude project state PSD permit application, which are outlined in Attachment A, "Proposed West Permit Allowables." There are grouped limits applicable to specific tanks.

    ii. VOC emission limit of 7.36 tpy for the existing Mid Plant Cooling Tower (EPN F-S-201). For the new Mid Plant Cooling Tower No. 2 (EPN F-S-202), FHR will agree to a VOC emission limit of 5.52 tpy. FHR shall be presumed to be in compliance with this limit if actual emissions as calculated using the El Paso Method and calculation basis from MACT CC and length of time to repair from the time of sampling are at or below this limit. Samples shall be taken at least monthly.

i. FHR shall comply with the recordkeeping requirements established by 40 C.F.R. § 63.655(i)(4)(iii), and maintain such records for at least five years.

ii. FHR shall report, in the first Quarterly Excess Emissions Report following submittal of its annual emissions inventory, any exceedance of the annual tons/year VOC emissions limit.

iii. Fuel gas sulfur limits:

Unit	Source	Limit (gr/100 scf on annual basis)
	39BA3901 CCR Hot Oil Heater (JJ-4)	2
	37BA1 DHT Charge Heater (KK-3)	0.6
	37BA2 DHT Stripper Reboiler (KK-3)	
Mid Crude Unit	Crude Heater 42BA1 (A-203)	
	Vacuum Heater 42BA3 (A-204)	
Utilities	Mid Crude Boiler 43BF1 (R-201)	0.6
	Utility Boilers 06BF657 (R-7), 06BF658 (R-8), and 06BF659 (R-9)	5
Other Sources	LSG Hot Oil Heater 47BA1 (LSGHTR)	0.6
	MX Unit Hot Oil Heater (MX-1)	
	DDS Charge Heater 56BA1 (DDS-HTRSTK)	
	DDS Fractionator Reboiler 56BA2 (DDS-HTRSTK)	

iv. FHR will continuously measure the total sulfur content at each representative mix drum, namely the Mid-Plant fuel mix drum, 90# fuel gas mix drum and the CCR fuel system.

v. Sat Gas No. 3 Hot Oil Heater (SATGASHTR) will fire purchased natural gas and LPG treating off-gas with an annual sulfur content limit of 0.5 gr/100 scf.

vi. Limits and monitoring for the FCCU as set out below.

i. PM limit: 1 lb/1000 lbs of coke burn.

ii. FHR will conduct an annual PM performance test per the applicable test methods in 40 CFR 60.106. FHR will conduct the first annual PM performance test within 180 days following issuance of the state and federal construction permits for the West Domestic Crude Project. Following the initial PM performance test, subsequent PM performance tests will be performed within 12 calendar months of the prior PM performance test, or sooner if FHR wishes to do so. FHR will operate at a coke burn rate within 5% plus or minus of the coke burn rate during the prior PM performance test.

iii. SO_2 limit: 50 ppm on a 7 day average, and 25 ppm on a 365 day average.

iv. CO limit: 500 ppm on an hourly average, and 50 ppm on a 365 day average.

2. Other Agreements and Definitions.

a. FHR will engage a third party to perform an energy efficiency audit of the Mid-Crude and West Crude Units. The audit will commence within 180 days of startup of the Domestic Crude Project. FHR will provide a copy of the audit report to EIP and the Environmental Clinic. The audits will identify projects that have a seven (7) year payback or better and the potential GHG reductions associated with projects identified. FHR will use commercially reasonable efforts to evaluate projects against expected economic returns. In its sole

judgment, FHR may pursue projects that meet its normal expected economic return.

b. FHR will design to an ammonia slip of 7.5 ppm on a 365-day rolling average for the Saturated Gas #3 Hot Oil Heater (EPN SATGASHTR) and use its good faith commercial efforts to design to 7.5 ppm ammonia slip on a 365-day rolling average for the CCR Hot Oil Heater (EPN JJ-4).

c. FHR agrees to fund a discrete PM and/or VOC monitoring project, not to exceed $40,000. The funds will be provided to EIP within 30 days following the execution of this Agreement, to be used solely for the purpose of procuring equipment and providing staffing to conduct ambient air monitoring.

d. FHR will perform the tank control projects listed in Attachment B such that no new or modified facility begins operation as part of the Domestic Crude Project until the VOC emissions increase associated with the new or modified facility has been offset by one or more of the tank control projects. The VOC emissions reductions attributable to these controls is approximately 84.36 tons per year.

e. A change in the Domestic Crude Project will not be considered material (hereafter a "Material Change") unless:

    i. The change results in a significant relaxation of the terms and conditions the Parties have agreed to in paragraph 1 of this Agreement;

    ii. FHR is unable to meet the agreed upon terms and conditions in this Agreement as a result of the change; or

iii. The change causes the Domestic Crude Project, including related emission reduction projects, to result in an overall increase in emissions of one or more criteria pollutants.

3. Release.

a. Unless there is a Material Change in the Domestic Crude Project, CFEJ and EIP shall formally withdraw their objections, comments, and contested case hearing request from TCEQ within five (5) days of execution of this Agreement.

b. Unless there is a Material Change in the Domestic Crude Project, the Millers, the Environmental Clinic, CFEJ, and EIP shall not file negative comments with the USEPA or TCEQ during the public comment periods or file any petitions objecting to, appealing, or requesting a contested case hearing regarding the final PSD permit for the Domestic Crude Project issued by USEPA or the final state pre-construction permit issued by TCEQ, pursuant to federal law under 40 C.F.R. Part 124 or other federal regulations or provisions under the federal Clean Air Act, pursuant to 30 T.A.C. Chapter 55 or any other state law or regulations under the Texas Clean Air Act, or under common law in any administrative or judicial venue.

c. Unless there is a Material Change in the Domestic Crude Project, the Millers, the Environmental Clinic, CFEJ, and EIP shall not file any petitions objecting to, appealing, or requesting that USEPA object to the action to include the final PSD permit for the Domestic Crude Project issued by USEPA, the final state pre-construction permit issued by TCEQ, and the terms set out in this Agreement in the Corpus Christi West Refinery's Title V air operating permit, solely with

respect to the inclusion of the terms contained in the final PSD permit for the Domestic Crude Project issued by USEPA, the final state pre-construction permit issued by TCEQ, and the terms set out in the Agreement. The Parties are not restricted from challenging any other terms that may be part of a future permit action to include the final PSD permit for Domestic Crude Project issued by USEPA, the final state pre-construction permit issued by TCEQ, and the terms set out in this Agreement, pursuant to federal law under 40 C.F.R. Part 70 or other federal regulations or provisions under the federal Clean Air Act, pursuant to 30 T.A.C. Chapter 122 or any other state law or regulations under the Texas Clean Air Act, or under common law in any administrative or judicial venue.

d. Unless there is a Material Change in the Domestic Crude Project, the Millers, the Environmental Clinic, CFEJ, and EIP shall not provide funding, technical support, legal support, or other assistance to any individual or organization, whether or not such individual or organization is a member of CFEJ or EIP, for the purpose of filing negative comments with the USEPA or TCEQ regarding the Domestic Crude Project.

4. Termination.

a. If, prior to construction, FHR decides not to pursue the Domestic Crude Project, any Party shall have the option, at its sole discretion, to terminate this Agreement, in which case all provisions of the Agreement shall be rendered null and void, except for the provision in paragraph 2(c). Any Party electing to

terminate the Agreement under this provision shall give 30 days notice to all other Parties prior to the termination becoming effective.

b. The Millers, CFEJ, or EIP shall have the option, at their sole discretion, to terminate this Agreement in the event there is a Material Change in the Domestic Crude Project. Prior to exercising such right to terminate, the Millers, the Environmental Clinic, CFEJ, and EIP shall consult with each other regarding whether there has been a Material Change. A Party electing to terminate the Agreement under this provision shall give 30 days notice to FHR prior to the termination becoming effective.

5. Entire Agreement. This Agreement contains the entire agreement among the Parties with respect to the subject matter hereof, and no oral statements or prior written materials not specifically incorporated herein shall be effective. No variation, modification, or changes hereof shall be binding on any party unless set forth in a document executed by all of the Parties.

6. Successors. This Agreement shall be binding upon and shall inure to the benefit of all of the Parties and their respective successors.

7. Governing Law. The validity, interpretation, performance, and enforcement of this Agreement shall be governed and construed by the laws of the state of Texas.

8. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original.

9. Assignment. The rights and/or obligations under this Agreement of any party hereto may not be assigned except with the express written consent of the other Parties hereto. Any assignment in violation of this provision shall be void.

12-4-13

Flint Hills Resources Corpus Christi, LLC
2825 Suntide Road
Corpus Christi, TX 78403

12-9-13

Environmental Integrity Project
1303 San Antonio Street, Suite 200
Austin, TX 78701

12-9-13

Environmental Clinic
University of Texas School of Law
727 East Dean Keeton
Austin, TX 78705
For: Citizens for Environmental Justice and James and Roberta Miller

Attachment A

West Domestic Crude Project

Proposed West Permit Allowables

FIN	EPN	Description	NO_X		CO		SO_2		PM		PM_{10}	
			Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project	
			lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
SATGASHTR	SATGASHTR	Sat Gas No. 3 Hot Oil Heater	4.50	14.78	3.29	14.43	6.06	2.65	4.60	15.23	4.60	15.23
39BA3900	JJ-4	NHT Charge Heater	0.38	1.25	1.25	5.48	1.16	1.42	0.43	1.12	0.43	1.12
39BA3901	JJ-4	CCR Hot Oil Heater	1.24	4.06	4.07	17.81	3.79	4.61	1.40	3.66	1.40	3.66
43BF1	R-201	43BF1 Boiler	15.99	70.05	22.15	24.25	0.63	1.66	1.00	4.38	1.00	4.38
37BA1	KK-3	37BA1 DHT Charge Heater	3.84	16.80	3.20	14.01	0.20	0.53	0.64	2.80	0.64	2.80
37BA2	KK-3	37BA2 DHT Stripper Reboiler	3.84	16.80	3.20	14.01	0.20	0.53	0.64	2.80	0.64	2.80
56BA1	DDS-HTRSTK	DDS Charge Heater (combined stack)	1.80	7.88	2.00	8.76	0.11	0.30	0.30	1.31	0.30	1.31
56BA2	DDS-HTRSTK	DDS Fractionator Reboiler (combined stack)	1.80	7.88	2.00	8.76	0.11	0.30	0.30	1.31	0.30	1.31
42BA1	A-203	42BA1 Crude Heater	33.23	145.57	23.75	104.04	1.51	3.96	2.38	10.40	2.38	10.40
42BA3	A-204	42BA3 Vacuum Heater	11.99	52.53	7.49	32.81	0.48	1.25	0.75	3.28	0.75	3.28
47BA1	LSGHTR	LSG Hot Oil Heater	10.01	43.84	11.12	48.71	0.64	1.67	1.65	7.24	1.65	7.24
54BA1	MX-1	54BA1 MX Unit Hot Oil Heater	5.59	24.49	4.00	17.50	0.25	0.67	0.66	2.89	0.66	2.89
01BF102	AA-4	FCCU CO Boiler/Scrubber	586.55	467.11	358.92	157.21	370.94	162.47	58.30	235.70	58.30	235.70
LW-8	VCS-1	Marine Vapor Combustor	2.65	2.25	6.44	5.47	2.80	2.03	0.60	0.51	0.60	0.51
SRU NO. 1	H-15A	SRU No. 1 Incinerator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45BD3	V-8	API Separator Flare	0.26	1.13	2.20	9.64	0.12	0.50				
MSSFUGS*	MSSFUGS	Miscellaneous MSS Fugitives	228.04	16.58	262.28	28.95	1726.99	56.97	27.44	1.32	23.91	0.67
F-SATGAS3	F-SATGAS3	Sat Gas No. 3 Fugitives										
14-UDEX	F-14-UDEX	UDEX Fugitives										
37	F-37	DHT Fugitives										
39	F-39	NHT/CCR Fugitives										
40	F-40	West Crude Fugitives										
42	F-42	Mid Crude Fugitives										
P-GB	F-GB	Gasoline Blender Fugitives										
P-VOC	F-TK-VOC	VOC Tank/Loading Fugitives										
01	F-01	FCCU Fugitives										
26	F-26	Hydrocracker Fugitives										
SITENH3FUG	SITENH3FUG	Site-wide Ammonia Fugitive Emissions										
44EF2	F-S-202	Mid-Plant Cooling Tower No. 2							0.15	0.66	0.12	0.53
IFRTK1	IFRTK1	100,000 bbl IFR Tank										
IFRTK2	IFRTK2	75,000 bbl IFR Tank										
08FB108R1	FB108R1	Tank 08FB108R1										
08FB109R	FB109R	Tank 08FB109R										
08FB142	FB142	Tank 08FB142										
08FB147	FB147	Tank 08FB147										
08FB137	FB137	Tank 08FB137										
11FB402	FB402	Tank 11FB402										
11FB403	FB403	Tank 11FB403										
11FB408	FB408	Tank 11FB408										
11FB409	FB409	Tank 11FB409										
11FB410	FB410	Tank 11FB410										
Combined Limit for 11FB408, 11FB409, 11FB410												
15FB507	FB507	Tank 15FB507										
15FB508	FB508	Tank 15FB508										
15FB510	FB510	Tank 15FB510										
Combined Limit for 15FB508, 15FB510												
40FB3041	FB3041	Tank 40FB3041										

*Allowable for all permitted MSS activities at the facility

Attachment A

West Domestic Crude Project

Proposed West Permit Allowables

FIN	EPN	Description	NO_X		CO		SO_2		PM		PM_{10}	
			Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project	
			lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
40FB3043	FB3043	Tank 40FB3043										
40FB3044	FB3044	Tank 40FB3044										
Combined Limit for 40FB3043 and 40FB3044												
40FB4010	FB4010	Tank 40FB4010										
40FB4011	FB4011	Tank 40FB4011										
Combined Limit for 40FB4010 and 40FB4011												
40FB4012	FB4012	Tank 40FB4012										
40FB4013	FB4013	Tank 40FB4013										
40FB4014	FB4014	Tank 40FB4014										
40FB4015	FB4015	Tank 40FB4015										
40FB4016	FB4016	Tank 40FB4016										
15FB509	FB509	Tank 15FB509										
Combined Limit for 40FB4016, 15FB509												

*Allowable for all permitted MSS activities at the facility

Attachment A

West Domestic Crude Project

Proposed West Permit Allowables

FIN	EPN	Description	$PM_{2.5}$		VOC		NH_3		H2S	
			Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project	
			lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
SATGASHTR	SATGASHTR	Sat Gas No. 3 Hot Oil Heater	4.60	15.23	0.28	1.22	1.89	8.28		
39BA3900	JJ-4	NHT Charge Heater	0.43	1.12	0.20	0.90	0.16	0.70		
39BA3901	JJ-4	CCR Hot Oil Heater	1.40	3.66	0.67	2.92	0.52	2.27		
43BF1	R-201	43BF1 Boiler	1.00	4.38	1.20	5.24				
37BA1	KK-3	37BA1 DHT Charge Heater	0.64	2.80	0.38	1.67				
37BA2	KK-3	37BA2 DHT Stripper Reboiler	0.64	2.80	0.38	1.67				
56BA1	DDS-HTRSTK	DDS Charge Heater (combined stack)	0.30	1.31	0.22	0.95				
56BA2	DDS-HTRSTK	DDS Fractionator Reboiler (combined stack)	0.30	1.31	0.22	0.95				
42BA1	A-203	42BA1 Crude Heater	2.38	10.40	2.84	12.43				
42BA3	A-204	42BA3 Vacuum Heater	0.75	3.28	0.89	3.92				
47BA1	LSGHTR	LSG Hot Oil Heater	1.65	7.24	1.20	5.24				
54BA1	MX-1	54BA1 MX Unit Hot Oil Heater	0.66	2.89	0.48	2.09				
01BF102	AA-4	FCCU CO Boiler/Scrubber	58.30	235.70	1.68	7.35	10.90	28.63		
LW-6	VCS-1	Marine Vapor Combustor	0.60	0.51	16.05	17.06			0.03	0.02
SRU NO. 1	H-15A	SRU No. 1 Incinerator	0.00	0.00	0.00	0.00			0.00	0.00
45BD3	V-8	API Separator Flare			1.07	4.68			0.0012	0.0050
MSSFUGS*	MSSFUGS	Miscellaneous MSS Fugitives	23.91	0.67	1069.14	30.77			6.69	0.46
F-SATGAS3	F-SATGAS3	Sat Gas No. 3 Fugitives			2.66	11.66				
14-UDEX	F-14-UDEX	UDEX Fugitives			0.02	0.07				
37	F-37	DHT Fugitives			4.06	17.78				
39	F-39	NHT/CCR Fugitives			2.77	12.13				
40	F-40	West Crude Fugitives			5.07	22.23				
42	F-42	Mid Crude Fugitives			8.82	38.63				
P-GB	F-GB	Gasoline Blender Fugitives			1.16	5.08				
P-VOC	F-TK-VOC	VOC Tank/Loading Fugitives			0.67	2.93				
01	F-01	FCCU Fugitives			17.81	77.99				
26	F-26	Hydrocracker Fugitives			5.66	24.78				
SITENH3FUG	SITENH3FUG	Site-wide Ammonia Fugitive Emissions					0.07	0.29		
44EF2	F-S-202	Mid-Plant Cooling Tower No. 2	0.02	0.01	1.26	5.52			0.0001	0.0003
IFRTK1	IFRTK1	100,000 bbl IFR Tank			0.54	1.99				
IFRTK2	IFRTK2	75,000 bbl IFR Tank			0.47	1.76				
08FB108R1	FB108R1	Tank 08FB108R1			5.09	19.01				
08FB109R	FB109R	Tank 08FB109R			4.16	15.30				
08FB142	FB142	Tank 08FB142			8.39	32.83			0.32	0.21
08FB147	FB147	Tank 08FB147			10.01	38.10			0.33	0.21
08FB137	FB137	Tank 08FB137			4.44	16.15			0.16	0.10
11FB402	FB402	Tank 11FB402			4.34	17.63				
11FB403	FB403	Tank 11FB403			3.95	15.91				
11FB408	FB408	Tank 11FB408			0.96	N/A				
11FB409	FB409	Tank 11FB409			0.89	N/A				
11FB410	FB410	Tank 11FB410			0.88	N/A				
Combined Limit for 11FB408, 11FB409, 11FB410					N/A	2.35				
15FB507	FB507	Tank 15FB507			4.21	18.66				
15FB508	FB508	Tank 15FB508			1.25	N/A				
15FB510	FB510	Tank 15FB510			1.14	N/A				
Combined Limit for 15FB508, 15FB510					N/A	2.67				
40FB3041	FB3041	Tank 40FB3041			54.60	2.81				

*Allowable for all permitted MSS activities at the facility

Attachment A

West Domestic Crude Project

Proposed West Permit Allowables

FIN	EPN	Description	$PM_{2.5}$		VOC		NH_3		H2S	
			Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project		Proposed Emission Rates for Domestic Crude Project	
			lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
40FB3043	FB3043	Tank 40FB3043			0.60	N/A				
40FB3044	FB3044	Tank 40FB3044			0.60	N/A				
Combined Limit for 40FB3043 and 40FB3044					N/A	1.03				
40FB4010	FB4010	Tank 40FB4010			3.69	N/A			0.14	N/A
40FB4011	FB4011	Tank 40FB4011			3.60	N/A			0.13	N/A
Combined Limit for 40FB4010 and 40FB4011					N/A	19.73			N/A	0.17
40FB4012	FB4012	Tank 40FB4012			3.09	12.08				
40FB4013	FB4013	Tank 40FB4013			3.04	11.85				
40FB4014	FB4014	Tank 40FB4014			0.66	0.88				
40FB4015	FB4015	Tank 40FB4015			0.66	0.63				
40FB4016	FB4016	Tank 40FB4016			0.58	N/A				
15FB509	FB509	Tank 15FB509			0.80	N/A				
Combined Limit for 40FB4016, 15FB509					N/A	1.67				

*Allowable for all permitted MSS activities at the facility

Attachment B

West Domestic Crude Project

Tank Emission Reduction Projects

FIN	EPN	Description	Current Controls	Proposed Controls
40FB3043	FB3043	Tank 40FB3043	Tank is currently a fixed-roof tank painted white.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal which reduces VOC emissions.
40FB3044	FB3044	Tank 40FB3044	Tank is currently a fixed-roof tank painted white.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal which reduces VOC emissions.
40FB4014	FB4014	Tank 40FB4014	Tank is currently a fixed-roof tank painted white.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal which reduces VOC emissions.
40FB4015	FB4015	Tank 40FB4015	Tank is currently a fixed-roof tank painted white.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal for VOC control.
40FB4016	FB4016	Tank 40FB4016	Tank is currently a fixed-roof tank painted white.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal for VOC control.
15FB509	FB509	Tank 15FB509	Tank is currently a fixed-roof tank painted white.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal for VOC control.
08FB160	FB160	Tank 08FB160	Tank currently painted white and has a internal floating roof with a mechanical shoe primary seal and a bolted deck with a welded deck.	Install suspended internal floating roof and replacement of bolted deck with a welded deck to reduce VOC emissions.
08FB161	FB161	Tank 08FB161	Tank currently painted white and has a internal floating roof with a mechanical shoe primary seal and a bolted deck with a welded deck.	Install suspended internal floating roof and replacement of bolted deck with a welded deck to reduce VOC emissions.

Attachment B

West Domestic Crude Project

Tank Emission Reduction Projects

15FB501[1]	FB501	Tank 15FB501	Tank currently painted white and has a internal floating roof with a mechanical shoe primary seal and a bolted deck with a welded deck.	Install suspended internal floating roof and replacement of bolted deck with a welded deck to reduce VOC emissions.
15FB510	FB510	Tank 15FB510	Tank currently painted white and has a internal floating roof with a mechanical shoe primary seal and a bolted deck with a welded deck.	Installing a suspended internal floating roof, mechanical-shoe primary seal, and rim-mounted secondary seal which reduces VOC emissions.

[1]Tank control options may change based on technical feasibility but the same emissions reduction will be achieved with any alternative technologies.