

SETTLEMENT AGREEMENT AND RELEASE

This Settlement Agreement and Release (Agreement) is entered into by and between Flint Hills Resources Pine Bend, LLC (FHR), and Minnesota Center for Environmental Advocacy (MCEA), and Environmental Integrity Project (EIP) (collectively referred to as the “Parties”).

RECITALS

- A. FHR is proposing changes to its Pine Bend Refinery located in Rosemount, Dakota County, Minnesota (#3 Crude/Coker Improvements Project). Some of the proposed changes require an air permit under the federal Clean Air Act’s (CAA) Prevention of Significant Deterioration (PSD) program. The Minnesota Pollution Control Agency (MPCA) has been delegated authority by the U.S. Environmental Protection Agency (USEPA) to issue PSD permits under the federal PSD regulations set forth at 40 C.F.R. Part 52.
- B. The #3 Crude/Coker Improvements Projects permit application includes the #3 Crude Improvement Project, the #3 Coker Improvement Project and a sulfur dioxide (SO₂) emissions reduction project involving changes to emissions units.
- C. The #3 Crude Unit Improvements Project includes upgrades to the #3 Crude Unit and provides additional cooling water capacity.
- D. The #3 Coker Improvements Project includes the optional replacement of two process heaters (existing 23H1 and 23H2) in the 23 Coker Unit with a single new process heater (new 23H3).
- E. The third project supports SO₂ emissions reductions from fired heaters affected by and included within both the #3 Crude Unit Improvements Project and #3 Coker

Improvements Project. This third project will be completed if either the #3 Crude Improvements Project or the #3 Coker Improvements project are completed.

- F. In November 2012, FHR submitted a PSD construction permit application to the MPCA for the #3 Crude/Coker Improvement Projects. FHR submitted a supplement clarifying the optionality of the new 23H3 process heater in February 2013. FHR plans to submit an amendment to the application to correct GHG emission calculations for modified and affected heaters.
- G. FHR engaged MCEA and EIP in settlement discussions regarding the #3 Crude/Coker Improvements Projects and MCEA and EIP have raised certain issues.
- H. MCEA is a nonprofit organization incorporated in the State of Minnesota and whose mission is to use law, science and research to protect Minnesota's natural resources, wildlife and the health of its people.
- I. EIP is a nonpartisan, nonprofit organization incorporated in the District of Columbia, established in March of 2002 to advocate for more effective enforcement of environmental laws.
- J. The Parties have engaged in arms-length discussions to address and resolve the issues of MCEA, EIP, and they have come to a mutual agreement with respect to 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 MPCA is the permitting authority and nothing in this Agreement does or is intended to bind MPCA or require it to deviate from its normal processes. The Parties believe that their Agreement will facilitate MPCA's processing of the permit application.

- K. The Parties wish to enter into this Agreement to memorialize the terms of their mutual agreement and so that the #3 Crude/Coker Improvement Projects 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. Proposed 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 #3 Crude/Coker Improvements Projects PSD construction permit to be issued by MPCA. To the extent MPCA declines to include a permit term set forth in this paragraph 1, FHR agrees to comply with the substance of the permit terms and conditions set forth in this paragraph 1 as a condition of this Agreement.
 - b. Cooling Towers Volatile Organic Compounds (VOC's) Permit Terms:
 1. Volatile organic compound (VOC) emissions from new or modified cooling towers will be capped as follows: i.) Cooling Tower 6, if modified, will be capped at 11.96 tons per year (tpy) ; and ii.) Cooling Tower No. 7, upon start-up, will be capped at 7.36 tpy.
 2. FHR shall determine compliance with these limits using the "Air Stripping Method (Modified El Paso Method) for Determination of Volatile Organic Compound Emissions from Water Sources," and calculation basis from MACT CC and length of time to repair from the time of sampling. Specifically, FHR shall apply the emission rate

(calculated from the sampling results and cooling tower recirculation rate) from the time sampled until the next sample that changes the Modified El Paso based emission rate. Samples will be taken at least monthly but can be taken more frequently at the discretion of FHR.

3. FHR shall comply with the recordkeeping requirements established by 40 C.F.R. § 63.655(4)(iii), and maintain such records for at least five years.
 4. FHR shall report, in its Quarterly Air Quality Emissions Report, the rolling 365-day average of VOC emissions, for each day in the reporting period.
- c. Fluid Catalytic Cracking Unit Electric Static Precipitator (FCU ESP) Particulate Matter (PM): FHR uses de-SO_x catalyst at the FCCU. During PM₁₀ stack testing at the FCCU, which will occur at the intervals specified by MPCA guidance, FHR will apply de-SO_x catalyst at an annualized average rate representative of normal operating conditions.
 - d. Sulfur Dioxide (SO₂) (fuel limits): FHR shall limit SO₂ emissions from the combustion of refinery fuel gas to 270 tpy.
 - e. New and Modified Heaters (GHG): FHR will maintain the stack exit temperature below 350 degrees F on a 365-day rolling average basis, excluding periods of start-up, shutdown, and low firing rates (<60% of maximum design capacity).
 - f. New and Modified Heaters (GHG): To demonstrate compliance with the stack exit temperature below 350 degrees F on a 365-day rolling average basis,

excluding periods of start-up, shutdown, and low firing rates (<60% of maximum design capacity), FHR will do all of the following:

1. Continuously monitor the stack exit temperature.
2. Consider a stack exit temperature above 350 degrees F on a 24-hour average basis, excluding periods of start-up, shutdown, and low firing rates (<60% of maximum design capacity), as an excursion that requires corrective action.
3. Upon detecting a stack exit temperature above 350 degree F on a 24-hour average basis, 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.
4. Keep records of the continuous stack temperature measurements for at least five years and report excursions and a summary of response actions in FHR's Quarterly Air Quality & Excess Emissions Report.

Excursions are events that require a response. Excursions are not violations and FHR shall not be considered out of compliance with the limit unless the stack exit temperature is above 350 degrees F on a 365-day rolling average basis, excluding periods of start-up, shutdown, and low firing rates (<60% of maximum design capacity).

g. New and Modified Heaters (GHG): FHR will comply with the following tpy carbon dioxide (CO₂) limits on each new and modified heater:

1. 25H-2 – 117.0 lbs/MMBtu on a 12-month rolling average. Total CO₂ equivalent (CO₂e) emissions are not to exceed 167,066 tpy CO₂e annually. Compliance with the lb/MMBtu limit can be demonstrated by firing strictly natural gas.
2. 23H-3, if constructed – 117.4 lbs/MMBtu on a 12-month rolling average. Total CO₂e emissions are not to exceed 135,795 tpy CO₂e annually. Compliance with the lb/MMBtu limit can be demonstrated by firing strictly natural gas or by quantifying the average lb/MMBtu of the gaseous fuels fired over the operating period.
3. 11H-6 – 124.3 lbs/MMBtu on a 12-month rolling average. Total CO₂e emissions are not to exceed 219,660 tpy CO₂e annually. Compliance with the lb/MMBtu limit can be demonstrated by firing strictly natural gas or by quantifying the average lb/MMBtu of the gaseous fuels fired over the operating period.

The parties recognize that best available control technology (BACT) limits are determined on a case by case basis, and that CO₂ limits established in paragraph 1(g) may not reflect BACT at other heaters. For the pounds per million British Thermal Units (lbs/MMBtu) limits, FHR will not be required as part of this Agreement to submit additional BACT analysis.

#3 Crude/Coker Improvements Projects Permit Application.

FHR will use commercially reasonable efforts to incorporate into the permit record a more detailed description of the CO₂ reduction and energy efficiency measures reflected in the permit. Such measures are summarized below. The CO₂ reduction information provided below is based upon the November 2012 permit application and may change as the project proceeds through additional stages of permitting. A change in the project will not be considered material unless the change:

- results in a significant relaxation of the terms and conditions the Parties have agreed to in paragraph 1 of this Agreement, and FHR is unable to meet the agreed upon terms and conditions through this Agreement as a result of the change (hereafter “Material Change”);
or
- Otherwise reflect a substantial increase in emissions from the Project above amounts projected in the current Application.

The CO₂ reduction estimates reflected in these descriptions will not be enforceable permit limits. FHR will revise its permit application to contain a new summary section that includes the information below.

- a. Actual GHG emissions that result from the project are expected to be less than approximately 235,000 Ton CO₂e per year (as opposed to the 421,000 in the updated PSD analysis). This estimate is based on the total of actual emissions from the three heaters (25H1, 23H1 and 23H2) that will be shut down and enforceable reductions in coker drum vent pressure. As described below, energy efficiency and heat integration measures built into the project design reduce project related emissions from what the emissions otherwise would be by an estimated 54,000 metric Tons CO₂e per year, or 20-25% of the projected totals.

- b. FHR compared the designed operation of new and modified heaters in the project to the current operation of the existing heaters to estimate the project's energy efficiency. Specifically, FHR compared today's heat loss (via stack temperature and excess oxygen from heaters that are being replaced/upgraded) to the design values of the new and modified heaters (3% stack O₂ and 350 F stack temperature). By this analysis, FHR estimates that without the energy efficiency technology included in the project for heaters, the project would emit an additional ~26,000 metric ton CO₂e per year.
- c. Part of the refinery fuel gas sulfur reduction portion of the project involves improved cooling and condensing of a fuel gas stream from the coker units that will condense additional mercaptans into the liquefied petroleum gas (LPG) stream. The project will also recover additional propane to the LPG system reducing the carbon intensity of the refinery fuel gas system. The reduction is estimated at ~8,000 metric Ton CO₂e per year.
- d. The #3 Crude Unit will be designed to recover incremental heat going to the 25 Vacuum Unit in the form of a new waste heat steam generator 25E38 at the heavy vacuum gas oil (HVGO) pump around system. This excess thermal energy at the #3 Crude Unit will be used as needed to produce steam. Changes at the #3 Crude Unit will also result in additional steam production from an existing waste heat steam generator 27E120 at the downstream distillate hydrotreater. Also, steam consumption at existing steam re-boiler 25E28 in the crude naphtha stabilizer will be reduced as a result of this project. The new waste heat steam generator 25E38, additional steam production from 27E120, and

reduced steam consumption at the stabilizer re-boiler 25E28 fulfills the steam demands of the #3 Crude Unit project without additional steam boiler firing. Without implementing integration into the project design, FHR estimates the additional steam make would result in an additional ~20,000 meTon CO₂e per year.

2. Good Faith Estimate of Energy Efficiency and BACT.

For purposes of providing additional context regarding the scope of the investment that FHR is making in GHG BACT and energy efficiency in the #3 Crude/Coker Improvements Projects, set forth below is a good faith estimate of the costs of the energy efficiency and GHG BACT measures for several of the heaters included in the project. This good faith estimate is for informational purposes only. It is based upon the information available to FHR as of the date of this Agreement, is not a commitment to spend a certain sum for energy efficiency or GHG BACT, and is not otherwise binding on any party in any way.

- a. New 25H-2 replacing 25H-1 (crude heater) – \$36.8 million+/- 10% - includes selective catalytic reduction (SCR) for NO_x emission reductions;
- b. New 23H-3 if replacing 23H-1 and 23H-2 (coker heaters) - \$75-90 million - includes SCR for NO_x emission reductions;
- c. Revamped 11H-6 (crude heater) - \$15-50 million (\$25 million expected) – includes SCR for NO_x emission reductions; and
- d. Additional piping to enable additional steam production from 25E-38 - \$0.3MM

3. Energy Efficiency Audits.

- a. FHR will engage a third party to perform two energy audits. Within 180 days after MPCA issues the #3 Crude/Coker Improvements Projects PSD

construction permit, FHR will commence an energy audit of its Platformer Unit, #2 Hydrogen Plant, #3 Hydrogen Plant, and heaters affected by, but that are not new or modified in, the #3 Crude/Coker Improvements Projects.

- b. Within 180 days after successful start-up of the #3 Crude/Coker Improvements Projects, FHR will commence an energy audit of its #3 Crude Unit and #3 Coker Unit.
- c. FHR will provide a copy of the audit reports to MCEA and EIP. 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.

4. Cooperative Minnesota PM Project.

- a. FHR will invest \$1,000,000 in efforts outside of the Pine Bend Refinery to help mitigate PM2.5 and ground level ozone in Minnesota, consistent with the State's overall reduction goals.
- b. The Parties agree that they prefer this investment be made in a continuation of the Project Green Fleet program originally funded by FHR, "Project Green Fleet II." The monies will be placed into an interest bearing Escrow Account with a mutually agreed upon financial institution upon the signing of this agreement by all Parties. Subject to Sections 5(c) and 8(c) of this Agreement, the monies will remain in escrow until a final PSD construction permit for the #3 Crude/Coker Improvements Projects is issued and no longer subject to further administrative

or judicial appeal. Interest accumulated in the Escrow Account will be paid to FHR when the Account is terminated. FHR will pay any and all fees associated with the Escrow Account on terms negotiated with the financial institution holding the escrowed monies. Subject to Sections 5(c) and 8(c) of this Agreement, once the final PSD construction permit is issued, the Escrow Account will be terminated and the escrowed monies will be released and paid into a fund managed by Environmental Initiative (formerly Minnesota Environmental Initiative, Inc.) and it will choose the specific diesel retrofit projects to fund.

c. Should it become apparent that a continuation of this diesel retrofit program, or Project Green Fleet II, is infeasible or no longer preferred by the Parties, FHR will propose funding an alternative PM reduction project in Minnesota, subject to the approval of MCEA and EIP, such approval not to be unreasonably withheld. Once such an alternative project is identified, the escrowed moneys shall be released and paid into a fund mutually identified by the Parties to execute the alternative project.

5. Assistance in Permitting. Unless there is a Material Change in the #3 Crude/Coker Improvements Projects permit application, MCEA and EIP shall use all reasonable efforts to assist FHR in obtaining the #3 Crude/Coker Improvements Projects PSD construction permit such that the #3 Crude/Coker Improvements Projects may proceed without delay. Efforts by MCEA and EIP shall include filing comments supporting the changes made to the permit that are reflected in this Agreement and making clear that MCEA and EIP do not have any objections.

6. Release.

- a. Unless there is a Material Change in the #3 Crude/Coker Improvements Projects permit application or project, EIP and MCEA shall not file negative comments with the MPCA during the public comment period or file a petition objecting to or appealing the final PSD permit for the #3 Crude/Coker Improvements Projects, pursuant to federal law under 40 C.F.R. Part 124 or other federal regulations or provisions under the Clean Air Act, pursuant to state law under the Minnesota Environmental Rights Act, Minnesota Statutes Chapter 116B, the Minnesota Environmental Policy Act, Minnesota Statutes Chapter 116D, the Minnesota Pollution Control Agency Statute, Minnesota Statutes Chapter 116, the Minnesota Administrative Procedure Act, Minnesota Statutes Chapter 14, or any other state law or regulations thereunder, or under common law in any administrative or judicial venue.
- b. Unless there is a Material Change in the #3 Crude/Coker Improvements Projects permit application or project, EIP and MCEA 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 EIP or MCEA, for the purpose of filing negative comments with the MPCA during the public comment period or filing a petition objecting to or appealing the final PSD permit for the #3 Crude/Coker Improvements Projects, pursuant to federal law under 40 C.F.R. Part 124 or other federal regulations or provisions under the Clean Air Act, pursuant to state law under the Minnesota Environmental Rights Act, Minnesota Statutes Chapter 116B, the Minnesota Environmental Policy

Act, Minnesota Statutes Chapter 116D, the Minnesota Pollution Control Agency Statute, Minnesota Statutes Chapter 116, the Minnesota Administrative Procedure Act, Minnesota Statutes Chapter 14, or any other state law or regulations thereunder, or under common law in any administrative or judicial venue.

7. Termination.

- a. If, after January 1, 2014, FHR has not received a final PSD construction permit for the #3 Crude/Coker Improvements Projects which is not subject to further administrative or judicial appeal, any Party shall have the option, at its sole discretion, to terminate this Agreement, in which case the provisions of the Agreement shall be rendered null and void. 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. MCEA or EIP shall have the option, at their sole discretion, to terminate this Agreement in the event there is a Material Change in the #3 Crude/Coker Improvements Projects permit application or project. Prior to exercising such right to terminate, MCEA 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.
- c. In the event of termination of this Agreement pursuant to paragraph 8(a) or (b), MCEA and EIP agree that funds placed into the Escrow Account established

pursuant to paragraph 5(b) shall be returned to FHR along with all interest accrued.

8. Confidentiality. The Parties agree that paragraphs 6, 7, 8, and 9 of this agreement shall be kept confidential and not disclosed to any person or entity, including but not limited to, representatives of local, state, or federal governing and regulatory bodies and agencies, and members of the public. It is the intent of all Parties that communication regarding this Agreement shall be made cooperatively and after consultation with one another. This Agreement shall not prohibit the Parties from: (1) discussing the underlying disputes or the terms of this Agreement with their attorneys and/or tax advisors; (2) testifying pursuant to a court order or subpoena issued by a government agency or court of competent jurisdiction and which appears valid on its face; (3) disclosing information to taxing or government authorities as necessary; or (4) disclosing information as specifically required by law.
9. 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.
10. Successors. This Agreement shall be binding upon and shall inure to the benefit of all of the Parties and their respective successors.

11. Governing Law. The validity, interpretation, performance, and enforcement of this Agreement shall be governed and construed by the laws of the state of Minnesota.
12. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original.
13. 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.

FLINT HILLS RESOURCES PINE BEND,
LLC

MINNESOTA CENTER FOR
ENVIRONMENTAL ADVOCACY

By: *Scotlin*

By: *[Signature]*

Its: *V.P. + Mgr Mgr*

Its: *EXECUTIVE DIRECTOR*

ENVIRONMENTAL INTEGRITY
PROJECT

By: *[Signature]* 3/29/2013

Its: *EVS* 3/29/2013