

Exhibit 2

FLARE SPECIATION AND AIR QUALITY MODELING

The “Flare Speciation and Air Quality Modeling” project is divided into two distinct tasks:

- Task 2–A:** Flare Speciation Study Using Advanced Computational Methods
- Task 2–B:** Air Quality Modeling

Because the purpose of Task 2–B is to quantify the environmental benefit of Task 2–A, Performing Party shall perform Task 2–A prior to performing Task 2–B. Performing Party shall ensure that Task 2–A is sufficiently funded and staffed to ensure completion prior to spending SEP funds on any aspect of Task 2–B, including, but not limited to, personnel salaries and/or equipment.

Performing Party shall comply with the obligations and/or duties arising in Exhibit 2 as a condition precedent to expenditure of SEP funds.

Task 2–A: Flare Speciation Study Using Advanced Computational Methods

Project Description for Task 2–A:

A flare operating under its designed conditions and in compliance with 40 C.F.R. § 60.18 is assumed to achieve a 98% Destruction and Removal Efficiency (“DRE”) for Volatile Organic Compound (“VOC”) emissions, i.e. 98% of VOC emissions are assumed to be completely destroyed in the flaring process; however, basic combustion chemistry demonstrates the possibility that intermediate VOC species are formed during the combustion process, and these speciated VOC emissions are not accounted for in the DRE. Task 2–A will employ advanced modeling techniques to identify these speciated VOC emissions from the flaring operations of various chemical processes under various conditions, which will, in turn, provide a more accurate estimate of VOC emissions that includes speciated VOC emissions. In doing so, Task 2–A will identify the Combustion Efficiency (“CE”) and DRE of flares under specific operating conditions and environmental conditions, which will enhance industrial expertise as to flare operation and provide TCEQ with a more accurate emissions inventory for flaring operations. Performing Party shall perform Task 2–A in accordance with this Agreement and Performing Party’s “Application to Receive [SEP] Funding” dated July 23, 2009 (Attachment 1, hereinafter the “Application”). In the event that this Agreement conflicts with the Application, the Agreement controls.

Initial Funding

Performing Party shall not commence Task 2–A until sufficient SEP funds are available¹¹ to ensure completion of the task. Performing Party currently estimates the minimum cost of performance to be \$65,000.00.¹² Performing Party shall not spend any SEP funds until it has accumulated \$65,000.00 in SEP funds earmarked for Task 2–A. After reaching this threshold, Performing Party may continue to collect SEP funds up to the maximum amount budgeted in the Application. Performing Party may elect to fully fund Task 2–A before spending SEP funds on Task 2–B; however, once Task 2–A is fully funded, Performing Party may not apply for, receive or expend any SEP funds for any activities covered under

¹¹ Funds are “available” when the funds are deposited in the separate account maintained within Lamar University and may be withdrawn from the account. A commitment to fund the SEP project, even through a Commission-approved Agreed Order, may not be utilized to demonstrate sufficient funding.

¹² See “TARC Response to Request for Additional Information Regarding TARC’s Application to Receive SEP Funding” (Attachment 2), at 10.

Task 2–A until such time that Task 2–B is sufficiently funded (at the minimum cost of performance level) and commenced.

Limitations on Expenditure of SEP Funds

Performing Party shall utilize SEP funds in accordance with the budget submitted in the Application and in “TARC Response to Request for Additional Information Regarding TARC’s Application to Receive SEP Funding” (Attachment 2, hereinafter “TARC’s Response”). Performing Party shall not utilize SEP funds for any equipment, software or other expense not specifically listed in the Application and/or TARC’s Response without prior approval, in writing, by TCEQ.

Task 2–B: Air Quality Modeling

Task 2–B is to perform air quality simulations to quantify air quality improvements resulting from the completion of Tasks 1–A and 2–A. Performing Party shall perform Task 2–B in accordance with the Application. In the event that the Agreement conflicts with the Application, the Agreement controls.

Because Task 2–B is essentially an extension of Task 1–B that employs advanced modeling techniques to simulate improvement from both Tasks 1–A and 2–A, Performing Party shall not commence Task 2–B until Tasks 1–A and Task 2–A are completed. In performing Task 2–B, Performing Party shall not duplicate work performed in Task 1–B to the extent possible; however, Performing Party may elect to combine Task 1–B and Task 2–B.

Initial Funding

Performing Party shall not commence Task 2–B until sufficient SEP funds are available¹³ to ensure completion of the task. Performing Party currently estimates the minimum cost of performance to be \$20,000.00;¹⁴ however, this figure presumes that equipment and software purchased for Task 2–A will be available. As such, Performing Party shall not spend any SEP funds until it has accumulated \$20,000.00 in SEP funds earmarked for Task 2–B, *and* Performing Party has accumulated sufficient funds earmarked for Task 2–A to commence Task 2–A. After reaching this threshold, Performing Party may continue to collect SEP funds up to the maximum amount budgeted in the Application. Performing Party may elect to fully fund Task 2–A before designating SEP funds to be utilized for Task 2–B.

Request for Approval

Prior to spending any SEP funds on Task 2–B, Performing Party must submit a “Supplemental Request for Approval to Commence Air Quality Modeling SEP Task 2–B” (“Supplemental Request for Approval of Task 2–B”) to TCEQ. This request must be fully approved, in writing, by TCEQ prior to Performing Party’s expenditure of any SEP funds on Task 2–B, including, but not limited to, personnel and equipment expenses. The Supplemental Request for Approval of Task 2–B shall consist of (a) a detailed description of the modeling work to be performed that is narrowly tailored to quantify the air quality improvements resulting from Task 1–A and Task 2–B; (b) if Task 1–B has been completed, a detailed statement of the additional benefit to be obtained from Task 2–B; and, (c) if Task 1–B has been

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¹⁴ See “TARC Response to Request for Additional Information Regarding TARC’s Application to Receive SEP Funding” (Attachment 2), at 10.

completed, a detailed justification for performance of any activities in Task 2-B that would duplicate activities in Task 1-B.

Limitations on Expenditure of SEP Funds

Performing Party shall utilize SEP funds in accordance with the budget submitted in the Application and in TARC's Response. Performing Party shall not utilize SEP funds for any equipment, software or other expense not specifically listed in the Application and/or TARC's Response without prior approval, in writing, by TCEQ.

Environmental Benefit of Task 2-A and Task 2-B:

Task 2-A will utilize modeling and simulations to identify the VOC species generated and emitted at the flare under various operating conditions and environmental conditions as well as determine the CE and DRE of the flares. This will allow better quantification of actual emissions from flaring operations and provide TCEQ with a more accurate emissions inventory, which may be utilized in SIP documentation. This information is expected to assist in identifying and developing strategies to reduce emissions from industrial sources.

Eligible Counties: Jefferson

Minimum Contribution: \$10,000.00