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May 8, 2009

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**Re: Informal Comments - Texas Flare Task Force Stakeholder Group Report
of 3/30/2009 and 4/2/2009**

Dear Ms Anderson:

Texas Chemical Council ["TCC"] and Texas Oil and Gas Association ["TxOGA"] have previously furnished comments to the Texas Commission on Environmental Quality ["TCEQ"] with regard to issues raised by the agency's industrial flare task force (letter dated May 8, 2009 from Deb Hastings, TxOGA, and Mike Mullins, TCC). These comments were primarily representative of refining and chemical plant operations. TxOGA offers the following additional comments on behalf of its Upstream (exploration and production) and Midstream (pipeline and gas processing) membership. As previously mentioned, in addition to its representation of refinery operations in Texas, TXOGA members produce in excess of 90 percent of Texas' crude oil and natural gas and are responsible for a vast majority of the state's pipeline mileage

The Upstream and Midstream segments of the oil and gas industry operate thousands of flares in Texas, most of which are authorized by a Permit by Rule or Standard Permit and a large number of which are not required to be registered because they burn only "sweet" gas. These operations are not centralized (as are the refinery and chemical plant operations), but are spread all over the state - wherever there are oil and gas production sites or pipeline operations. In addition, these segments of the industry often use temporary flares where there is a need for them (e.g., drilling sites or pipeline maintenance activities).

Flare equipment in use in Upstream and Midstream operations varies significantly in maximum flare volume, with some flares handling less than 1000 cubic feet per day.



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The most common flares in Upstream and Midstream operations are rarely used; these flares are generally used only for upsets and/or for maintenance activities.

Flaring events for rarely used flare stacks are caused by:

- (1) Infrequent PRV releases (over-pressuring of process vessels)
- (2) Downstream facility (e.g., pipeline or gas processing plant) upsets or maintenance activities
- (3) Power failures
- (4) On site equipment malfunctions (e.g., compressor problems)
- (5) On-site maintenance activities
- (6) Backup for process/control devices (e.g., Vapor recovery units)

Other flares are used as process (continuously burning) flares to combust:

- (1) tank vapors and, or fugitive emissions
- (2) acid gas from gas sweetening systems
- (3) glycol overhead vapors from glycol regenerators

Problems with maintaining a high destruction efficiency and prevention of smoking include:

- (1) High flare turndown ratio – high range of gas volumes directed to flare
- (2) Changes in hydrocarbon composition of flare gas stream (e.g., depending on what wells are being produced - and at what rate - or what plant processes/equipment have streams directed to the flare)
- (3) Variations in contaminant (e.g., CO₂ or N₂) concentration

Flare equipment in use in Upstream and Midstream operations varies significantly in sophistication, from a manually lit flare stack (with no upstream scrubber or volume meter) to a flare with a continuously burning pilot, upstream scrubber, metered gas input to the flare, and flare operation monitoring equipment such as thermocouples, an IR camera, and/or a gas chromatograph. Few of the flare systems are as elaborate as those in refineries and chemical plants, nor is it reasonable to require that they be equipped in that manner.

A significant concern for Upstream and Midstream operators is the possibility for new regulations requiring major changes to existing flare systems and the potentially huge cost associated with such changes. The concern is that new regulations might automatically put a wide set of existing flares into a non-compliant situation - perhaps with no reasonable economic alternatives.

TxOGA Recommendations Regarding Any New Flare System Regulations For Upstream and Midstream Oil and Gas Operations:

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(1) Any new rule proposal should take into account the many uses of flares and the various locations for flares in the state. One set of rules should not be implemented for all types of flares at all locations. A new rule should apply:

(A) a “fit-for-purpose” concept, taking into account use of the flare, flare downturn, monitoring of the flare, stream compositions, and industry type, etc. This concept is key for development of reasonable and workable improved flare performance standard(s);

(i) Some flares are for emergency only while others are more complex.

(ii) Many flares have a stable stream routed to them while others have multiple stream options.

(iii) Some gas streams (from “dry gas” wells or from pipeline operations handling gas that has already been processed and is ready to be delivered to a gas distribution system or other end user) have little VOC content.

(iv) Many flares are very remote, making any monitoring, instrumentation, and data capture difficult.

(v) Remote flares are typically located at sites that are normally unmanned (i.e., at sites that are normally visited once a day or less and for a short period each visit); and

(B) consideration of location (e.g., rural vs. urban locations) and avoid indiscriminately imposing on locations in attainment areas rules that are deemed necessary for nonattainment areas.

(2) Continue to rely on calculations specified in 40 CFR 60.18 for flare design instead of requiring post-installation testing of the flare to verify performance..

(A) Historically the calculations for the flare design in 40 CFR 60.18, regarding velocity and stream composition, have been sufficient to insure the flare was designed properly for its intended use. Continued reliance on these calculations should be adequate to insure compliance without requiring actual testing of flare stack operations.

(B) In many cases, on-location testing of flare stacks with intermittent operations or operations under varying conditions would require flaring to be artificially induced and cause emissions that would not otherwise occur. This seems counterproductive to the direction the state has been moving toward in the last several years.

(C) The testing of all existing flares would be very costly. Testing should be limited to those flares for which 40 CFR 60.18 requires testing and should be limited to the testing requirements specified in 40 CFR 60.18. Test should not be required for those flares for which TCEQ requires application of 40 CFR 60.18 design requirements only.

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(D) Flares for emergency use (and some continuous use applications) in Upstream and Midstream operations typically have large turndown incorporated into their design. In most cases, such a design is necessary because it is either impractical or economically infeasible to design for separate low pressure and high pressure (or high volume and low volume) streams to flare. As a result, accurate metering for all scenarios at various flow rates would often be a challenge.

(E) As a matter of note, most reputable vendors guarantee a proper flare design, further strengthening the case for not requiring testing beyond what federal regulation requires.

(3) Any new rule proposal should be limited to NEW flares installed after the date of the rulemaking and not affect existing flares, particularly in attainment areas. Modification of existing flares would usually require a site shutdown or venting of any emissions that would normally be directed to the flare.

(4) An attempt should be made to define, address, and publish Best Management Practices (BMPs). These BMPs could be used in lieu of regulatory requirements to give operator options such as fit-for-purpose design and site specific options for operation and monitoring of their flares.

TXOGA appreciates the opportunity to offer these comments regarding flares at Upstream and Midstream oil and gas operations. We are willing to participate by providing actual scenarios, typical design and instrumentation options currently in use, and experiences with flare operations. We look forward to working with TCEQ to provide input into any new proposed rulemaking resulting from the flare study.

Sincerely,



Deb Hastings
Vice President for Environmental Affairs

DS:ll