

# **Texas Commission on Environmental Quality Flare Task Force Stakeholder Group Meeting**

March 30, 2009

2:00 - 4:00 p.m.

Houston-Galveston Area Council

April 2, 2009

2:00 - 4:00 p.m.

TCEQ, Austin

## **Meeting Summary**

### **I. Opening Remarks and Presentation**

Susana M. Hildebrand, P.E., Director, Air Quality Division, TCEQ, welcomed stakeholders and presented information about the goals of the Flare Task Force and the issues currently identified for evaluation. The presentation is posted on the [Flare Task Force Stakeholder Group](#) web page under the Minutes and Agendas of Prior Meetings for March 30, 2009.

### **II. Open Discussion**

#### **March 30, 2009**

A stakeholder asked for thoughts on the competing interests between smoking flares and destruction and removal efficiency (DRE).

In some instances, flares with visible flames appear to be achieving a higher DRE than smokeless flares.

A stakeholder commented that requiring flare minimization plans should not be ruled out as a possible strategy to reduce emissions and suggested staff consider using a staged submittal of the minimization plans, over a 6 month to one year time period, to alleviate the burden of having to approve such a large quantity of plans.

The use of flare minimization plans is one of the topics currently being evaluated by the task force and staff is requesting informal comments on incentives that could be given to encourage voluntary reductions in flaring.

A stakeholder asked if the TCEQ plans to conduct actual physical testing on flares, and if so will there be an opportunity to form a technical advisory panel like those created during previous flare tests, and will the specifics of the test plan be made available on the internet.

Yes, staff anticipates that testing will occur in the summer of 2009. However, we are not yet at the point in the development where we have specific test plans available for comment.

A stakeholder asked if staff anticipates these efforts being compromised by EPA enforcement actions related to recent Section 114 information requests on flares.

Staff asked for comments from Carl Young, EPA Region 6, and he declined. Concerning TCEQ enforcement actions, staff recognizes that the possibility of enforcement action may make companies reluctant to participate in agency research and we would make every attempt to use enforcement discretion during research or testing.

A stakeholder commented that presentation indicated that staff anticipates submitting a report to the ED this fall and asked if the stop date for these flare task force efforts was connected to the 2010 submittal of the Houston-Galveston-Brazoria Eight-Hour Ozone State Implementation Plan.

The Flare Task Force efforts are not connected to the 2010 submittal of the HGB SIP. However, a description of these efforts and/or any applicable findings may be included in the HGB SIP as part of the discussion of corroborating evidence or future commitments.

A stakeholder asked if staff had used the IR camera to look at any flare gas recovery units.

Yes.

A stakeholder expressed doubts about using the IR camera to assess flare emissions and asked if there are any plans to work with the EPA to verify the emissions from flares that have been seen with the IR camera.

The IR camera is a tool that provides qualitative data not quantitative data. Staff estimates that of the approximately 500 flares monitored with the IR camera, only about 5% have emissions trails. There is currently no plan to conduct research with EPA. Staff also provided anecdotal information about one company that was contacted after TCEQ staff using the IR camera observed an emission plume coming from their flare; upon further investigation the company found the flare tip was damaged and in need of repair.

A stakeholder asked if we have made any correlation between the emission trails seen with the IR camera and facility operation data that would confirm if the flare was meeting the requirements in 40 CFR 60.18?

When a flare plume is seen with the IR camera the TCEQ Monitoring Operations Division contacts that company and requests that operations data be sent to the appropriate TCEQ regional office for further evaluation.

A stakeholder asked if we've seen any differences associated with crosswinds in the flare plume visualized with the IR camera.

Staff has observed differences in the plume with crosswinds and with variable wind speeds. These IR camera videos have been shown to representatives from the flare manufacturer John Zink and they agreed that the flare appears to be releasing un-combusted hydrocarbons. In addition, preliminary results from the 2007 TCEQ DIAL study show that the flare with the large, visible flame had a high DRE and the flare with no visible flame had a low DRE.

A stakeholder asked if we had considered that an increase in visible emissions will result in an increase in PM and would we take into consideration the PM attainment status of a region.

This research is not limited to VOC emissions, so to the extent that TCEQ has relevant data, the correlation between increased PM emissions and visible emissions will be addressed in the final staff report.

### **April 2, 2009**

A stakeholder asked if we will hold additional stakeholder group meetings after the informal comment period closes to discuss the comments received.

Yes, we anticipate additional meetings this summer.

A stakeholder asked what operational changes were associated with the reduced emission bloom seen in the IR camera video included in the presentation.

Staff has observed that a visible heat bloom is associated with reduced emissions from flares. After seeing the IR camera video shown in this presentation, the company conducted additional investigations and found that the flare tip was damaged and in need of repair. Once that flare tip was replaced TCEQ staff went back out to the site and the IR camera video from this visit did not show the large emission bloom coming from that flare.

A stakeholder asked what would happen after the flare task force submits the final staff report to the Executive Director.

The staff report will provide options and recommendations for management consideration. Any course of action after that point will depend on management direction.

A stakeholder asked if staff could elaborate on the upcoming research mentioned in the presentation.

As noted in the presentation, TCEQ is planning a study to measure flare emissions in a controlled environment (i.e., a flare test facility) using direct measurement techniques and remote sensing technologies. Staff wants to assess flare destruction and combustion

efficiency under different operating conditions including: 40 CFR §60.18 specifications, variable flow rates (turndown ratios), variable assist flow rates, and variable waste gas stream compositions. Staff hopes to conduct this research in the summer of 2009, but the specific dates will depend on the availability of the test facility and the remote sensing equipment.

A stakeholder asked if the assist gas to waste gas ratio was recorded with the blower turned on and turned off for the flare shown in the IR camera video. The stakeholder also asked if any available data could be posted on the Flare Task Force stakeholder group web page.

Operational data from the time when the IR video was recorded indicates the flare was operating within applicable limits; the flare tip temperature was approximately 1000 degrees Fahrenheit, the flare gas net heating value was approximately 800 Btu/scf, the exit velocity was approximately 0.5 ft/sec and the total flow rate to the flare ranged from 19 to 32 Mscf/hr. Staff also conducted a follow-up investigation of that flare using the IR camera and at that time, no visible emissions were noted.

A stakeholder asked if staff could also provide all other available research and documents currently being evaluated on the Flare Task Force stakeholder group web page.

Yes, available information will be posted under the heading *Links to Resource Documents*.

A stakeholder asked about the possibility of only looking at specific subsets of the flares in Texas, such as flares in certain geographic areas of the state or flares that are only used for specific operations.

Yes, staff is open to considering all possibilities and requests that stakeholders provide data illustrating how the various options are better suited for one particular operation than another.

A stakeholder asked what would happen next if staff did determine that the 98% DRE permitted to estimate emissions from flares was incorrect and asked how this scenario would play into EPA recent enforcement actions.

Staff will be considering these issues and will try to work with EPA during this process.

A stakeholder commented that there are various people that spent their careers investigating these types of flare issues and asked if staff had been in contact with these individuals.

Staff is attempting to discuss these issues with the appropriate people but we encourage stakeholders to comment on any specific people or groups that would be able to assist us in our research.

A stakeholder asked why the task force was attempting to complete this report on such a short timeframe and commented that staff should allow more time to collect information and evaluate these issues.

The schedule is based staff evaluation of the time necessary to evaluate the flaring issues identified and complete the report for the executive review.

A stakeholder asked if we had been in contact with any other states to discuss if or how they are addressing flare issues.

Staff has not had direct contact with any other state.

A stakeholder commented that the presentation mentioned the use of agreed orders as one option to encourage best management practices and asked if staff had considered also including compliance agreements as an incentive.

Staff would appreciate this idea being elaborated on and included in the informal written comments.