



**TAT Follow-up**

**Steve Wharton** to: alee

Cc: Dana Allen, bohan.suzanne

Bcc: Donald Law

02/02/2010 01:27 PM

Alvina, Thanks for reviewing on the phone today our pending issues with the TAT FEIS and EPA's efforts to respond to the public comments on that document. I now understand that TAT has retained your firm, Fredricks, Peoples & Morgan, to aid them in gathering the information EPA has requested.

Attached are the primary questions that EPA posed to Gordon Frisbie, the former Greystone engineer who prepared the air emissions calculations currently included in the FEIS. As stated in the attachment, EPA may have additional questions, once we have resolved these fundamental questions. Also, as we discussed, EPA still needs a response to the feedstock question included in the December 31, 2009, letter from Carol Campbell to Chairman Levings.

If you have any questions or need clarification of these questions, please let me know.

Thanks,  
Steve



Questions for TAT Air Analysis\_100202.doc

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Questions for TAT Air Analysis – Questions to tribe or its consultants

Note: These questions are not all inclusive and more questions may arise in further evaluation of the PSD applicability to the refinery, as proposed.

Background

There is currently no mechanism in place to establish federally enforceable permit conditions to limit the potential to emit (PTE) from emission sources at this proposed new facility without first obtaining a Prevention of Significant Deterioration (PSD) permit. Therefore, PTE must be calculated based solely upon physical design limitations, emission limitations in federal regulations that will apply to the facility (e.g., New Source Performance Standards), and only those emission-reducing devices or equipment that are an inherent and necessary part of the refinery's process design.

If the refinery's design and corresponding PTE is based upon the use of a control device (i.e., an emission-reducing device that is not inherent to the refinery's process design) to achieve a targeted emission rate, that control device must become federally enforceable before it can be credited as a restriction on the PTE of the facility. For example, vapor recovery at storage tanks where that vapor recovery system is not explicitly required for compliance with federal regulation, but is still a control device (i.e., an emission-reducing device that is not inherent to the refinery's process design) could not be credited as a restriction on PTE, unless use of the vapor recovery system was federally enforceable.

Further, an emission estimate for a control device that is lower than the emission limit of the applicable regulation the device is installed to meet would not be a valid PTE estimate; the emission limit of the applicable federal regulation should be used instead as the PTE estimate. Some examples may include, but are not limited to, Low and Ultra-low NOx burners designed to emit NOx at levels lower than the emission limit of the applicable regulation, and controls at the sulfur recovery plant designed to operate at SO<sub>2</sub> emission rates lower than the emission limit of the applicable regulation.

1. Validity of assumptions used to arrive at the PTE of the proposed refinery, particularly the flare system.

In the data found in Appendix C of the Air Quality Technical Report – TAT Refinery Performance Data, there are several listed factors (fuel usage, exhaust flow, pollutant concentrations, etc) for each process unit. However, there is no discussion as to the basis of this data, particularly the pollutant concentrations. The tribe or their consultants must supply information to support the selection of this data and why it represents the maximum PTE of the flare system. This basis could be a design limitation, a throughput limitation, or some other physical limit on the potential emissions of the process unit.

This data must be supplied for all criteria pollutants listed to determine the PTE of the process unit.

## 2. Validity of the assumption of the flare operating at 98% efficiency during operations.

The assumed 98% control efficiency is not a federally enforceable requirement. A minor drop in flare efficiency could have a large effect on the emissions from this source. As the flare would be used to demonstrate compliance with NSPS regulations, it must meet the design requirements found in NSPS Subpart A. However, this NSPS does not stipulate a minimum operational efficiency. The tribe or their consultants must justify why 98% is the minimum operational efficiency of the refinery flare, or else recalculate PTE based upon the lowest expected flare operating efficiency, under both normal operations and startup/shutdown operations.

## 3. Startup/Shutdown

The original submitted emissions estimations do not appear to address startup and shutdown emissions of the refinery as a whole or the emissions associated with the startup and shutdown of individual process units. It appears that only steady-state operations were calculated in determining the PTE and PSD applicability during the initial evaluation undertaken in 2005. The tribe or its consultants should resubmit an updated potential to emit for the refinery as a whole and on an individual unit basis to determine the true PTE of the refinery. Startup and shutdown operations are not viewed by EPA as malfunction events and must be taken into account when determining the PTE of normal operations at a facility.

## 4. Sulfuric Acid Mist

The original submitted emissions estimations did not address emissions of sulfuric acid mist from process units at the refinery. The tribe or its consultants should resubmit an updated PTE that addresses sulfuric acid mist from refinery process units.