



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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MAY 09 2011

Ref: 8P-AR

Tex G. Hall, Chairman
Three Affiliated Tribes
404 Frontage Road
New Town, North Dakota 58763

Re: Proposed MHA Nation Clean Fuels Refinery

Dear Chairman Hall:

This letter provides the United States Environmental Protection Agency (EPA) Region 8's evaluation of information submitted by the Mandan, Hidatsa and Arikara Nation (MHA or Tribes) in response to EPA's March 24, 2010, information request. EPA's request was made to obtain further information necessary to assist in finalizing the NEPA process and to determine the applicable Clean Air Act requirements for MHA's proposed petroleum refinery on the Fort Berthold Reservation.

EPA reviewed the March 9, 2011 Air Quality Technical Report Addendum for the proposed refinery submitted by the MHA's consultant as well as the October 20, 2010 North Dakota Department of Mineral Resources Bakken and Three Forks Crude Oil Database Analysis submitted by the MHA on March 8, 2011.

While the information submitted by the Tribes suggests that the proposed refinery would have potential emissions less than the Prevention of Significant Deterioration (PSD) permitting thresholds, due to the uncertainty of the design that the emission estimates are based on, EPA cannot concur with the Tribes' analysis. As discussed in the examples below, uncertainty remains in the "potential to emit" (PTE) calculations that are needed to make a PSD applicability determination for the proposed refinery. Three instances where the lack of design details and specifications leads to uncertainty regarding emissions are flaring, sulfur recovery, and the variability inherent in the Bakken crude feedstock.

The flaring discussion in the March 9, 2011 Addendum does not discuss any additional sources of flaring, but does give some basis for the assumption of a 500 lb/hr flare gas loading rate. However, without further details on design data or additional justification for this assumption, EPA cannot confirm the validity of the 500 lb/hr flare gas loading assumption.

The March 9, 2011 Addendum also discusses an additional three long tons per day sulfur recovery system with associated amine treating unit and tail gas unit. In the absence of federally enforceable permit conditions requiring only one unit to operate at a time, and due to the

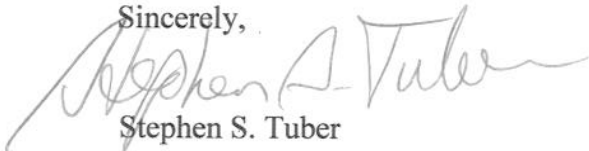
regulatory provisions for calculating potential to emit, the emissions from this second unit would have to be included in the refinery PTE calculations. If this additional emission source were part of the actual refinery design, the proposed refinery would have a PTE greater than 100 tons per year for sulfur dioxide emissions and be a major source for PSD purposes, requiring the Tribe to obtain a PSD permit prior to commencing construction.

Finally, the information presented in the Crude Oil Database Analysis consists of the crude characteristics of over 150 wells producing in the Bakken formation in North Dakota. Looking at the broader Bakken field data, it appears that the proposed refinery design can only accommodate a portion of the available Bakken crudes. A significant portion of Bakken crudes could contain more sulfur than the refinery design appears to be able to process. In order to process any Bakken crude, the existing refinery design may need to be modified to handle the incoming feedstock sulfur content.

The design details, equipment specifications and other information that EPA would need to determine whether the proposed refinery needs to obtain a PSD permit would be included in a PSD permit application. Consequently, EPA recommends that the Tribes prepare a PSD permit application at this time. Please note that if the Tribes commence construction of the proposed refinery without receiving a PSD permit from EPA, they do so at their own risk of non-compliance with the Clean Air Act if emissions exceed the PSD permit thresholds.¹

If you have any questions about this letter, please contact me at 303-312-6241 or Alfreda Mitre, Director of Region 8's Tribal Assistance Program, at 303-312-6343. If your staff or contractors have questions regarding the air technical issues, please have them contact Carl Daly at 303-312-6416.

Sincerely,



Stephen S. Tuber
Assistant Regional Administrator
Office of Partnerships and Regulatory Assistance

cc: Frank Whitecalfe, Vice Chairman, Three Affiliated Tribes Business Council
V. Judy Brugh, Secretary, Three Affiliated Tribes Business Council
Mervin Packineau, Treasurer, Three Affiliated Tribes Business Council
Scott Eagle, Councilman, Three Affiliated Tribes Business Council
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¹ EPA's interpretation of "constructed" as it applies to activities undertaken prior to issuance of a PSD permit is discussed in EPA's Memorandum on this issue, available at http://www.epa.gov/NSR/ttnnsr01/psd1/p14_4.html.