

EXHIBIT A

**In re. MHA Nation Clean Fuels Refinery
NPDES Permit Appeal Nos. 11-02, 11-03, 11-04**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8

1595 Wynkoop Street
DENVER, CO 80202-1129
Phone 800-227-8917
<http://www.epa.gov/region08>

NOV 21 2011

Ref: 8P-W-WW

Via the Central Data Exchange and Overnight mail to:

Eurika Durr
Clerk of the Board
United States Environmental Protection Agency
Environmental Appeals Board
Colorado Building
1341 G Street, N.W.
Suite 600
Washington, DC 20005

Via U.S. Mail

Mr. Tom Fredericks
Fredericks, Peebles & Morgan, LLP
1900 Plaza Drive
Louisville, CO 80027

Pastor Elise Packineau
P.O. Box 496
New Town, ND 58763

Mr. Sparsh Khandeshi
Environmental Integrity Project
1 Thomas Circle
Suite 900
Washington, DC 20005

Mr. James Stafslie
P.O. Box 0094
Makoti, ND 58756

Re: In re: MHA Nation Clean Fuels Refinery
NPDES Permit Number: ND-0030988
Consolidated Appeal Numbers: NPDES 11-02
NPDES 11-03
NPDES 11-04

Dear Ms. Durr, Mr. Fredericks, Mr. Khandeshi, Pastor Packineau, and Mr. Stafslie:

In accordance with 40 C.F.R. § 124.19(d), the United States Environmental Protection Agency (EPA) Region 8 (Region) is providing this notification to the Environmental Appeals Board (Board) and interested parties that it is withdrawing portions of National Pollutant Discharge Elimination System Permit (NPDES) number ND-0030988 (Final Permit) that the Region issued to the Three Affiliated Tribes (MHA Nation) on August 4, 2011. The Region will address these withdrawn portions and submit any revised provisions as draft permit conditions for public comment.

40 C.F.R. § 124.19(d) authorizes the Regional Administrator upon notification to the Board and any interested parties to withdraw portions of an NPDES permit any time prior to a decision by the Board to grant or deny review of a permit decision. 40 C.F.R. § 124.19(d). As the Board has not yet rendered a decision to grant or deny review of this permit decision, EPA Region 8 is hereby withdrawing the permit portions with respect to the effluent limitations listed in Final Permit Section 1.3.3 Effluent Limitations – Outfall 002 for: BOD (biochemical oxygen demand), COD (chemical oxygen demand), TSS (total suspended solids), total chromium, phenolic compounds, and oil and grease. The Region will prepare new draft effluent limitations under 40 C.F.R. § 124.6. The new effluent limitations be will subject to public notice and comment and may be appealed pursuant to 40 C.F.R. § 124.19.

After the Region issued the Final Permit on August 4, 2011, three separate petitioners appealed the permit to the Board. On September 30, 2011, the Board issued an order consolidating the cases and extending the time for the Region to respond to all petitions until December 16, 2011. In the appeal of the Environmental Awareness Committee (EAC) (NPDES 11-02), the EAC asserts that the Region established effluent limitations in the Final Permit that do not comply with the requirements of 40 C.F.R. § 419 (Petroleum Refining Point Source Category). Although this issue was not raised during the public comment period on the draft permit as required by 40 C.F.R. 124.19(a), upon receipt of the EAC petition, the Region reviewed its calculations regarding the effluent limitations to determine whether the permit contained the appropriate requirements. For the specific effluent limitations identified above, the Region determined the limitations were incorrect.

The Region is only withdrawing and planning to re-propose the provisions of the Final Permit set forth above and is not seeking comment on other permit provisions. After the public comment period closes, the Region will consider the comments received, provide written responses to significant comments, and develop final permit conditions. Once the Region issues the final permit conditions, any person with standing can appeal those permit conditions to the Board. With respect to the remaining allegations in the consolidated cases NPDES 11-02, NPDES 11-03, and NPDES 11-04, that are not addressed by this notice, the Region intends to respond by December 16, 2011, in accordance with the September 30, 2011 order of the Board.

If you have any questions regarding this notice, please contact Colleen Gillespie, in our NPDES program at (303) 312-6133, or Erin Perkins, in our Office of Regional Counsel, at (303) 312-6922.

Sincerely,



James B. Martin
Regional Administrator



EXHIBIT B

**In re. MHA Nation Clean Fuels Refinery
NPDES Permit Appeal Nos. 11-02, 11-03, 11-04**



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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**U.S. ENVIRONMENTAL PROTECTION AGENCY
PUBLIC NOTICE OF NPDES PERMIT**

RE-NOTICE FOR PUBLIC COMMENT: Effluent Limit Guideline derived Effluent Limits for the National Pollutant Discharge Elimination System (NPDES) Permit for Mandan, Hidatsa, and Arikara Nation's (MHA) Clean Fuels Refinery

PURPOSE OF PUBLIC NOTICE

The Environmental Protection Agency, Region 8 (EPA Region 8), is withdrawing and re-noticing as draft permit conditions, for public review and comment, certain provisions of the final NPDES permit that the Region issued to MHA Nation Clean Fuels Refinery on August 4, 2011 and which became effective on October 1, 2011 (August 2011 Permit). This action is being taken to address changes to the August 2011 permit and to provide additional opportunity to comment on those certain permit conditions.

PERMIT INFORMATION

PERMITTEE NAME: MHA Nation Clean Fuels Refinery
FACILITY CONTACT: Richard Mayer
PHONE/EMAIL: (701) 627-8252/rmayer@mhanation.com
NPDES PERMIT NUMBER: ND-0030988

The MHA Nation Clean Fuels Refinery discharges to an unnamed tributary to the East Fork of Shell Creek which is tributary to Lake Sakakawea. The refinery location is in the northeast corner of the Fort Berthold Indian Reservation in Ward County, North Dakota. Authorization for discharge is limited to only those outfalls specifically listed in the permit.

EPA REGION 8 DETERMINATION TO RE-NOTICE

EPA Region 8 is withdrawing and re-noticing as draft permit conditions certain provisions of the final NPDES permit that the Region issued to MHA Nation Clean Fuels Refinery on August 4, 2011. Specifically, the Region is withdrawing and re-noticing as draft permit conditions only those provisions involving calculations used to derive a limited set of technology based effluent limit. Therefore, this public notice involves only EPA's new calculations and the revised limitations derived from those calculations. No other changes were made to the original Fact Sheet or Permit, and EPA will accept public comments only for those effluent limitations withdrawn and issued for public comment in this notice. *See In re. Carlota Copper Company*, 11 E.A.D. 693, 736 (EAB 2004).

The Region is re-public noticing a portion of those effluent limitations located in Section 1.3.3 of the August 2011 final permit and listed below. The effluent limitations being re-noticed are more stringent than those in the August 2011 permit. In developing this amendment, the EPA reviewed the Supplemental Information Report and followed the Effluent Limit Guideline (ELG) process by identifying the applicable category and subcategory, determining the process configuration score, calculating the technology based process effluent limits, applying the existing contaminated runoff allowance, and calculating the final technology based effluent limits. EPA then calculated whether any

more stringent limits are necessary to meet applicable water quality standards, and if so, included such water quality based effluent limits in the permit.

EFFLUENT LIMITS BEING RE-NOTICED FOR COMMENT

- Biological Oxygen Demand
- Chemical Oxygen Demand
- Total Suspended Solids
- Oil and Grease
- Phenolic Compounds
- Total Chromium

The August 2011 Permit was appealed to the EPA's Environmental Appeals Board in Washington, DC. Because the MHA Nation Clean Fuels Refinery is a new source for purposes of the Clean Water Act, under 40 CFR § 124.16(a) the permit will not go into effect until the appeal is resolved. Because the draft limits in this notice will be part of the August 2011 permit once they are finalized, they also will not be effective until the resolution of the appeal. However, once the permit conditions in this notice are finalized, they also may be appealed pursuant to 40 CFR § 124.19. At that point, the EAB may choose to consolidate any such appeals with the existing appeal so that all issues related to the permit may be heard by at one time.

PUBLIC COMMENTS

In accordance with the requirements of 40 CFR 124.10, this comment period ends 45 calendar days after the last publication date of this notice on January 12, 2012. Comments may be directed to: Donna Roberts (8P-W-WW), U.S. Environmental Protection Agency, Region 8, 1595 Wynkoop Street, Denver, CO 80202. All comments received prior to the end of the comment period will be considered in the formulation of any final permit determinations.

After considering these comments, Region 8 will issue final permit conditions together with written responses to all significant comments. The EPA will hold a public hearing if the response to this re-notice indicates significant public interest.

FURTHER INFORMATION

Copies of this public notice, the amended Statement of Basis, and the Supplemental Information Report may be obtained by contacting Robert B. Brobst, P.E. at (303) 312-6129, by writing to the address listed above, or at EPA Region 8's website: <http://www.epa.gov/region8/compliance/nepa/mharefinery.html>.

Additionally, copies of these materials will be made available at locations around the Fort Berthold Indian Reservation. Information concerning locations and viewing times will be available at the website listed above or from Robert B. Brobst, P.E. at the phone number above. Copies will also be available for review and reproduction at EPA Region 8 (address listed above) during the hours of 10:00 AM to 4:00 PM, Monday through Friday, Federal holidays excluded. To make an appointment to look at the documents call Donna Roberts at (303) 312-6371 or Robert B. Brobst, P.E. as listed.

PUBLISHERS AND PUBLICATION DATES: New Town News and Dickinson Press, Published November 25, 2011. Williston Herald, Bismarck Tribune, and Minot Daily News, Published November 28, 2011.

FACT SHEET/STATEMENT OF BASIS
AMMENDMENT 1
MHA NATION CLEAN FUELS REFINERY
MAKOTI, NORTH DAKOTA

Facility Name: MHA Nation Clean Fuels Refinery

NPDES Permit No: ND-0030988

Responsible Official: Tex G. Hall, Chairman
Three Affiliated Tribes
Mandan, Hidatsa, and Arikara Nation

Facility Contact: Richard Mayer

Phone Number: (701) 627-8252

Email: rmayer@mhanation.com

Permit Type: Major Industrial Facility/Indian Country

Background Information

Technical errors were discovered in the technology based effluent limits following the October 2011 issuance of the final NPDES permit for the MHA Nations Clean Fuels Refinery. These errors necessitate the EPA to reevaluate the original calculations and amend the existing NPDES permit. The errors only involved calculations used to derive the technology based effluent limit and, therefore, this limited public notice only involves those calculations and the limitations derived from those calculations. This amendment corrects those errors and revises the effluent limitations for the following pollutants:

- BOD (biochemical oxygen demand)
- COD (chemical oxygen demand)
- TSS (total suspended solids)
- total chromium
- phenolic compounds
- oil & grease

No other changes were made to the original Fact Sheet or Permit.

In preparing this amendment, the Supplemental Information Reports I and II to the FEIS were reviewed and all relevant information in those reports, as well as the original permit application, were considered. This amendment follows the Effluent Limit Guideline (ELG) process by identifying the applicable category and subcategory, determining the process configuration score, calculating the technology based process effluent limits, applying the existing contaminated runoff allowance, and calculating the total technology based effluent limits. EPA then calculates whether any more stringent limits are necessary

to meet applicable water quality standards, and if so, includes such water quality based effluent limits in the permit.

Technology Based Effluent Limitations (TBELs)

The MHA Nation Clean Fuels refinery was determined to be a new source and must comply with New Source Performance Standards (NSPS) under the ELG and Standards for the Petroleum Refining Point Source Category pursuant to 40 CFR 419.36. The proposed refinery size is 10,000 Barrels per Stream Day (BPSD) of crude through the topping units plus 3,000 BPSD of field butane for a total refinery throughput of 13,000 BPSD. The total refinery throughput remains unchanged from the original application. Below the paragraphs are numbered to allow the reader to follow the steps required to calculate the TBELs.

1. Determining the Facility Subcategory.

The basic refinery operations meet the applicability requirements for Topping and Cracking. The determination that this facility meets the requirements for petrochemical is based on the definition in 40 CFR 419.31(b) given below:

“The term *petrochemical operations* shall mean the production of second generation petrochemicals (*i.e.*, alcohols, ketones, cumene, styrene, etc.) or first generation petrochemicals and isomerization products (*i.e.*, BTX, olefins, cyclohexane, etc.) when 15 percent or more of refinery production is as first-generation petrochemicals and isomerization products.”

The facility produces first generation petrochemicals, therefore meeting that part of the definition. The determination of the greater than 15% of the refinery production of first-generation petrochemicals was based on the information below:

Total refinery throughput of 13,000BPSD (10,000 BPSD through the topping unit and 3,000 BPSD of field butane to produce Isooctane through isomerization).

The facility met both the definitional requirement and the minimum percent requirement. Therefore, the facility remains covered under Subpart C Petrochemical Subcategory of the Petroleum Refining Point Source Category. The original determination of the subcategory remains the same as the original Statement of Basis.

2. Determining the Process Configuration Score

The following calculations are a revision to the original Statement of Basis. In recalculating the effluent limitations for the technology based effluent limits it is first necessary to calculate the Process Configuration Score. This score is based on the subcategory and the flow of feedstock through the topping unit (see 40 CFR 419.11(d)), which is 10,000 BPSD. Of the 10,000 BPSD that flows through the topping unit, 6,872 BPSD continues through the cracking unit. The calculation of the Process Configuration score follows the method in 40 CFR 419.36(b). Feed stock rates were obtained from the feedstock diagram in the NPDES Permit Application.

Process Configuration (per 1,000 BPSD) (see 40 CFR 419.42(b)(3))

<u>Feedstock Process</u>	<u>Feedstock Rate</u>	<u>Relative Rate</u>	<u>Weight Factor</u>	<u>Process Configuration</u>
Crude- Atm. Dist	10	1.00	1	1.00
Cracking (Hydrocracking)	6.872	0.6872	6	<u>4.12</u>
Total Process Configuration Score			Σ	<u>5.12</u>

3. Looking Up the Sizing and Process Factors

To obtain sizing and process factors the NSPS section under Subpart C Petrochemical Subcategory is used. A Process Configuration score of 5.12 (from above) and a 10, 000 BPSD capacity yields a Size Factor (SF) of 0.73 and a Process Factor (PF) of 0.80 pursuant to 40 CFR 419.36(b).

4. Calculation of the Process Effluent Limits (not including Contaminated Runoff)

Using New Source Performance Standards (NSPS) for petrochemical subcategory: Using the above Capacity, Size and Process factors, the following table shows applicable basic effluent limitations for this facility. (Limit (lbs/1000 BPSD) X (PF) X (SF) = Effluent Limit (lbs/day) X 10(1000 BPSD units)) (40 CFR 419.36(a)):

Table 1: Initial calculation of Effluent Limits in both lbs./1000BPSD and lbs./day for the refinery

Pollutant	Standard Effluent Limitation		Calculated Effluent Limitations	
	Daily Maximum (lbs/1000 BPSD)	Average Daily (lbs/1000 BPSD)	Daily Maximum (lbs/day)	Average Daily (lbs/day)
BOD ₅	7.7	4.1	44.97	23.94
TSS	5.2	3.3	30.37	19.27
COD	47.0	24.0	274.48	140.16
Oil and Grease	2.4	1.3	14.02	7.59
Phenolic Compounds	0.056	0.027	0.33	0.16
Ammonia as N	8.3	3.8	48.47	22.19
Sulfide	0.050	0.022	0.29	0.13
Total Chromium	0.116	0.068	0.68	0.40
Hexavalent Chromium	0.0096	0.0044	0.06	0.03
pH			6.0 to 9.0	

5. Original Contaminated Runoff Allowance

The storm water runoff portion of the effluent limits remain unchanged and will be used as originally calculated. Table 2 is provided below as a convenience. See page 30 of the Fact Sheet for the original calculations.

Table 2: Calculated contaminated runoff from original Statement of Basis

Pollutant	Effluent Limitation		Effluent Limitations	
	Daily Maximum (lbs/1000 gal)	Average Daily (lbs/1000 gal)	Daily Maximum (lbs/day)	Average Daily (lbs/day)
BOD ₅	0.40	0.22	2.53	1.39
TSS	0.28	0.18	1.77	1.14
COD	3.0	1.5	19.01	9.5
Oil and Grease	0.13	0.067	0.82	0.42
Phenolic Compounds	0.0029	0.0014	0.0184	0.0089
Ammonia as N	0	0	0	0
Sulfide	0	0	0	0
Total Chromium	0.0050	0.0018	0.032	0.011
Hexavalent Chromium	0.00052	0.00023	0.0033	0.0015
pH	6.0 to 9.0		6.0 to 9.0	

6. Calculation of Technology Based Final Effluent Limitations

To calculate the Final Effluent Limitation, the Process Effluent Limitations are added to the contaminated storm water allotment as summarized in Table 3 below.

Table 3: Calculation of the Final Effluent Limitations

Pollutant	Process Effluent Limitation		Stormwater Effluent Limitations		Total Effluent Limitations	
	Daily Maximum (lbs/day)	Average Daily (lbs/day)	Daily Maximum (lbs/day)	Average Daily (lbs/day)	Daily Maximum (lbs/day)	Average Daily (lbs/day)
BOD ₅	44.97	23.94	2.53	1.39	47.50	25.33
TSS	30.37	19.27	1.77	1.14	32.14	20.41
COD	274.48	140.16	19.01	9.50	293.49	149.66
Oil and Grease	14.02	7.59	0.82	0.42	14.84	8.01
Phenolic Compounds	0.33	0.16	0.0184	0.0089	0.35	0.17
Ammonia as N	48.47	22.19	0	0	48.47	22.19
Sulfide	0.29	0.13	0	0	0.29	0.13
Total Chromium	0.68	0.40	0.032	0.011	0.71	0.41
Hexavalent Chromium	0.06	0.03	0.0033	0.0015	0.06	0.03
pH	6.0 to 9.0				6.0 to 9.0	

7. Conversion of Technology Based Mass Limits to Concentration Limits for Comparison to Water Quality Based Effluent Limits (WQBEL)

The mass based technology limits above were converted to concentration based limits using flow information provided in the NPDES Permit Application. Under Alternative 4 of the DEIS, maximum flow is expected to be 76,320 gpd and average 28,800 gpd. Using the maximum flow would be protective of technology requirements regardless of recycle rates or choice of discharge alternative. Conversion factors are 3.785 l/gal, and 454,500 mg/lb. This is necessary to be able to compare the water quality based limitations with the TBELs. These are the same flows and conversion factors use in the original Statement of Basis.

TABLE 4: Comparison of Final Effluent Limitation in lbs./day and mg/L

Pollutant	Effluent Limitation		Effluent Limitations	
	Daily Maximum (lbs/day)	Average Daily (lbs/day)	Daily Maximum (mg/L)	Average Daily (mg/L)
BOD ₅	47.50	25.33	74.74	39.85
TSS	32.14	20.41	50.57	32.11
COD	293.49	149.66	461.77	235.47
Oil and Grease	14.84	8.01	23.34	12.60
Phenolic Compounds	0.35	0.17	0.55	0.27
Ammonia as N	48.47	22.19	76.26	34.91
Sulfide	0.29	0.13	0.46	0.21
Total Chromium	0.71	0.41	1.12	0.65
Hexavalent Chromium	0.06	0.03	0.09	0.05

8. Comparison of Water Quality Based and Technology Based Effluent Limitations

Table 5 contains a comparison of water quality and technology based requirements. The WQBELs were obtained from the original draft permit and remain unchanged. Any more stringent limits necessary to meet applicable water quality standards will be carried forward as water quality based effluent limits in the permit. The effluent limits that are involved in this evaluation and differ from the original permit are **bolded**. The remaining limits are unchanged and are provided to give context.

Table 5: Summary and comparison of WQBELS and TBELs to determine the Most Stringent Limit

Pollutant	Technology Based Limit		Water Quality Based Limit		Most Stringent Limit	
	Daily Maximum	Average Daily	Daily Maximum	Average Daily	Daily Maximum	Average Daily
BOD₅ (lbs/day)	47.50	25.33	N/A	N/A	47.50	25.33
COD (lbs/day)	293.49	149.66	N/A	N/A	293.49	149.66
TSS (lbs/day)	32.14	20.41	N/A	N/A	32.14	20.41
Oil and Grease (lbs/day)	14.84	8.01	N/A	N/A	14.84	8.01
Phenol µg/L	N/A	N/A	--	300	N/A	N/A
Phenolic Compounds (lbs/day)	0.35	0.17	N/A	N/A	0.35	0.17

Hydrogen Sulfide µg/L	460	210	--	2.0	--	2.0
Hydrogen Sulfide (lbs/day)	0.29	0.13				
Ammonia as N (mg/L)	76.3	34.9	3.2	1.1	3.2	1.1
Ammonia as N (lbs/day)	48.4	22.2				
Chromium (III) (tr) µg/L	1120	650	4430	212	MON	MON
Chromium (Total) (lbs/day)	0.71	0.41	1.84	0.035	0.71	0.035
Chromium (VI) µg/L	90	50	16	11	16	11
Chromium (VI) (lbs/day)	0.06	0.03	0.0067	0.0018	0.0067	0.0018

For pollutants listed above where the WQBEL is more restrictive than the TBEL (Total Sulfides, Ammonia as N, and Chromium VI), the WQBELs will remain unchanged and are not part of this amendment. As can be seen from the table above, most of the WQBELs have a relatively wide margin of safety (i.e., WQBELs are generally more than 20 times lower than the TBELs). Where this is true (Total Sulfides, Ammonia as N, and Chromium (VI)), the TBEL daily mass limits will not be used and the WQBEL will apply. Total Chromium will have a TBEL limit for daily maximum in lbs./day as it is more restrictive than the calculated WQ based effluent; however, for the Average Daily limit the WQBEL is more restrictive, will remain unchanged and is not part of this amendment

9. Amended Effluent Limits

TBELs impacted by this amendment and open for review under this amendment are listed below in Table 6. There is a replacement page for the effluent limits for Outfall 002. Based on the evaluation above, the original NPDES permit will be amended to include the following TBELs. All other conditions contained in the permit will remain the same.

Table 6: Final Limits open for review and comment in this amendment

Pollutant	Effluent Limitations	
	Daily Maximum (lbs/day)	Average Daily (lbs/day)
BOD ₅	47.50	25.33
TSS	32.14	20.41
COD	293.49	146.66
Oil and Grease	14.84	8.01
Phenolic Compounds	0.35	0.17
Chromium (Total)	0.71	

The table below (following page) includes all the currently applicable and proposed revised limits that will be included in the revised permit. For purposes of illustration, the previous effluent limits are struck-out (e.g. ~~43~~) and the reevaluated limits are in bold (e.g. **43**). Those limits that are NOT

highlighted are not changed and are not part of this amendment. A clean version of this chart will appear in section 1.3.3. of the revised permit.

Amendment 1 prepared by

Robert B. Brobst, P.E.
November 17, 2011

- 1.3.3. Effluent Limitations - Outfall 002. Effective immediately and lasting through the life of this permit, the quality of effluent discharged from the Final Effluent Holding Ponds or Effluent Final Release Tanks by the facility shall, as a minimum, meet the limitations as set forth below:

Effluent Characteristic	Effluent Limitation		
	30-Day Average <u>a/</u>	7-Day Average <u>a/</u>	Daily Maximum <u>a/</u>
Flow, mgd	0.025	N/A	0.05
Biochemical Oxygen Demand (5-day), lbs./day	43 25.3	N/A	84 47.5
Chemical Oxygen Demand, lbs./day	255 149.7	N/A	500 293.5
Total Suspended Solids, lbs./day	35 20.4	N/A	55 32.1
Oil and Grease, lbs./day	13.7 8.0	N/A	25 14.8
Benzene, ug/L	2.2	N/A	NA
Ethyl benzene, ug/L	530	N/A	NA
Toluene, ug/L	1300	N/A	NA
Phenol, ug/L	300	N/A	NA
Phenolic Compounds, lbs./day	0.29 0.17	N/A	0.59 0.35
Hydrogen Sulfide, ug/L	2.0	N/A	NA
Ammonia as N, mg/L	1.1	N/A	3.2
Barium (tr), ug/L	1000	N/A	NA
Aluminum (tr), ug/L	87	N/A	750
Chromium (Total), lbs./day	0.035	N/A	1.22 0.71
Chromium (VI), ug/L	11	N/A	16
Chromium (VI), lbs/day	0.0018	N/A	0.0067
Iron (tr), ug/L	300	N/A	N/A
Manganese (tr), ug/L	50	N/A	N/A
Mercury (Total), ug/L	0.0012	N/A	1.4
Nickel (tr), ug/L	132	N/A	1190
Selenium (tr), ug/L	5	N/A	20
Chloride, mg/L	230	N/A	860
Fluoride, mg/L	4.0	N/A	N/A
Sulfate, mg/L	750	N/A	N/A
Nitrite as N, mg/L	1.0	N/A	N/A
Nitrate as N, mg/L	10	N/A	N/A
Whole Effluent Toxicity, acute	LC ₅₀ > 100%		
Whole Effluent Toxicity, chronic	IC ₂₅ > 100%		
The pH of the discharge shall not be less than 7.0 s.u. or greater than 9.0 s.u. at any time.			

EXHIBIT C

**In re. MHA Nation Clean Fuels Refinery
NPDES Permit Appeal Nos. 11-02, 11-03, 11-04**

Supplemental Information Report II
NPDES Permit Revisions

November 22, 2011

Mandan, Hidatsa and Arikara Nations
Refinery Project
Environmental Impact Statement

**U.S. Environmental Protection Agency
Region 8
1595 Wynkoop Street
Denver, CO 80202-1129**

I. Purpose

This second Supplemental Information Report (SIR) documents the U.S. Environmental Protection Agency's (EPA's) evaluation and consideration of the proposed changes in effluent discharge limits for six parameters in the Clean Water Act (CWA) National Pollutant Discharge Elimination System (NPDES) "new source" wastewater discharge permit for the proposed Mandan, Hidatsa and Arikara (MHA) Nations refinery. Section 511(c)(1) of the CWA explicitly requires EPA to comply with the National Environmental Policy Act (NEPA) for new source NPDES permits. Pursuant to NEPA, EPA and the Bureau of Indian Affairs (BIA) issued a Draft Environmental Impact Statement (DEIS) in 2006 and a Final Environmental Impact Statement (FEIS) in 2009 for the proposed refinery and NPDES permit. The Council on Environmental Quality (CEQ) NEPA regulations provide direction regarding the preparation of supplemental EISs. The CEQ regulations at 40 C.F.R. § 1502.9(c) state:

Agencies shall prepare supplements to either draft or final EIS's if:

- 1. The agency makes substantial changes in the proposed action that are relevant to environmental concerns; or*
- 2. There are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts.*

This report summarizes EPA's evaluation of the changes in impacts resulting from the revised effluent discharge limits for chemical oxygen demand (COD), biological oxygen demand (BOD), total suspended solids (TSS), total chromium, phenolic compounds, and oil and grease. Specifically, the purpose of the SIR is to determine whether these revisions constitute either: (1) substantial changes to the Project since completion of the FEIS in 2009 that are relevant to environmental concerns, or (2) significant new circumstances or information relevant to environmental concerns and bearing on the proposed refinery or its impacts since the FEIS was completed.

II. Introduction

The MHA Nation or Three Affiliated Tribes (Tribes) have proposed to construct and operate a petroleum refinery with a capacity of 13,000 barrels per day on the Fort Berthold Indian Reservation in North Dakota. The proposed refinery location is in the northeast corner of the Fort Berthold Indian Reservation in Ward County as shown in Figure 1.

The refinery will need a CWA NPDES permit from EPA in accordance with CWA §402. The permit would allow the refinery to discharge treated wastewater into a tributary of the East Fork of Shell Creek. The permit would identify the required conditions and limitations of discharges from the facility.

On August 3, 2011, EPA issued a Record of Decision (ROD) documenting the Agency's decision to issue a NPDES permit for the refinery. EPA issued the NPDES permit for the refinery on August 4, 2011. The ROD was based on the FEIS prepared by the EPA and the BIA. The EPA also prepared a Supplemental Information Report (SIR) dated July 29, 2011 which documented EPA's assessment of the potential changes in impacts resulting from a change in the refinery

feedstock. In 2010, the Tribes decided to change the proposed refinery feedstock from the Alberta synthetic crude to the local Bakken crude oil.

Within the 30 day appeal period for the permit, the Environmental Appeals Board (EAB) received two petitions on the NPDES permit and EIS for the refinery. The EAB received a third petition after the close of the appeal period. One of the petitions alleged that some technology-based effluent limits in the permit are inaccurate or inappropriate. EPA has reviewed the limits and has determined that an error was made in calculating some effluent limits in the NPDES permit which was included in draft form in the FEIS. These include limits for chemical oxygen demand (COD), biochemical oxygen demand (BOD), total suspended solids (TSS), total chromium, phenolic compounds and oil and grease.



Figure 1 - Proposed Refinery Location

III. Effluent Limit Changes

The environmental impact analysis in the FEIS was based on the effluent limitations listed in the draft NPDES permit in Appendix C of the FEIS (page 9 of 36) as shown below and in the NPDES permit application. Parameters with revised effluent limitation are highlighted in Table 1.

The revised effluent limits are compared to the limits in the FEIS in Table 2.

Table 1 - Effluent Limits for Outfall 002 (Refinery Process Wastewater and Oily Stormwater) from the draft NPDES permit in Appendix C of FEIS.

Effluent Characteristic	30-day Average	Daily Maximum
Flow (million gallons/day)	0.025	0.05
BOD (lbs/day) ^a	43	81
Chemical Oxygen Demand (lbs/day) ^a	255	500
Total Suspended Solids (lbs/day) ^a	35	55
Oil and Grease (lbs/day) ^a	13.7	25.4
Phenolic Compounds (lbs/day) ^a	0.29	0.59
Total Chromium (lbs/day)	0.035 ^b	1.22 ^a
Hexavalent Chromium (lbs/day) ^b	0.0018	0.0067
Ammonia as N (mg/L) ^{b,e}	1.1	3.2
Benzene (µg/L) ^b	2.2	N/A
Ethyl Benzene (µg/L) ^b	530	N/A
Toluene (µg/L) ^b	1,300	N/A
Phenol (µg/L) ^b	300	N/A
Sulfide (µg/L) ^b	2	N/A
Fluoride (µg/L) ^c	4,000	N/A
Nitrate (µg/L) ^b	10,000	N/A
Nitrite (µg/L) ^b	1,000	N/A
Aluminum (tr) (µg/L) ^{b,h}	87	750
Barium (tr) (µg/L) ^{b,h}	1,000	N/A
Chromium VI (d) (µg/L) ^{b,h}	11	16
Iron (tr) (µg/L) ^{b,h}	300	N/A
Manganese (tr) (µg/L) ^{b,h}	50	N/A
Mercury (T) (µg/L) ^{b,h}	0.0012 ^f	1.4
Nickel (d) (µg/L) ^{b,g,h}	132	1,190
Selenium (µg/L) ^{b,h}	5	20
The pH of the effluent shall not be less than 7.0 standard units or greater than 9.0 standard units in any single sample or analysis.		
From April 1 through September 30, the concentration of dissolved oxygen in the effluent shall be greater than 8.0 mg/L (1-day minimum), 9.5 mg/L (7-day mean), and 6.5 mg/L (30-day mean).		
From October 1 through March 31, the concentration of dissolved oxygen in the effluent shall be greater than 4.0 mg/L (1-day minimum), 5.0 mg/L (7-day mean), and 6.5 mg/L (30-day mean). ^c		
There shall be no Acute Toxicity in 100% effluent. The LC ₅₀ shall be > 100%. ^d		
There shall be no Chronic Toxicity in 100% effluent. The IC ₂₅ shall be > 100%. ^d		
Notes:		
a. The limits are based on 40 CFR §419, Effluent Guidelines for the Petroleum Refining Point Source Category.		
b. The limits are based on EPA recommended §304(a) water quality criteria, November 2002 and December 2003.		
c. The limits are based on Three Affiliated Tribes adopted Water Quality Standards.		
d. The limits are based on 1997 EPA Region VIII WET Policy.		
e. Ammonia limits are based on an estimated effluent pH of 8.5 standard units and temperature 15°C.		
f. Limit is based on Region 8 recommended criteria for protection of fish tissue.		
g. Limit is calculated using an estimated hardness value of 300 mg/L as CaCO ₃ .		
h. (d) = dissolved, (T) = total, (tr) = total recoverable, N/A = not applicable.		

Table 2 - Comparison of NPDES Permit Limits in FEIS and Revised Limits

Effluent Characteristic	Limits in FEIS		Revised Limits	
	30-day Average	Daily Maximum	30-day Average	Daily Maximum
BOD ₅ (lbs/day) ^a	43	81	25.3	47.5
Chemical Oxygen Demand (lbs/day) ^a	255	500	149.7	293.5
Total Suspended Solids (lbs/day) ^a	35	55	20.4	32.1
Oil and Grease (lbs/day) ^a	13.7	25.4	8.0	14.8
Phenolic Compounds (lbs/day) ^a	0.29	0.59	0.17	0.35
Total Chromium (lbs/day)	0.035 ^b	1.22 ^a	0.035 ^b	0.71 ^a
			unchanged	

Notes:
a. The limits are based on 40 CFR §419, Effluent Guidelines for the Petroleum Refining Point Source Category.
b. The limits are based on EPA recommended §304(a) water quality criteria, November 2002 and December 2003.

IV. Are Changes Needed in the Refinery Wastewater Treatment Facility (WWTF) to Meet Revised Limits?

A. Proposed WWTF in FEIS and Permit Application

The wastewater treatment units are described on pages 2-18 through 2-25 and pages 2-57 and 2-58 of the FEIS. Wastewater from the refinery and oily stormwater runoff would be treated in a wastewater treatment plant consisting of the following units:

- American Petroleum Institute (API) separator to remove non-emulsified oil and oil bearing sludge from the wastewater;
- Dissolved air flotation system (DAF) to remove oils, grease and suspended solids;
- Biotreatment plant to biodegrade the organic components. The wastewater is aerated to provide oxygen for the bacteria to metabolize the organic compounds in the wastewater.
- Treated wastewater will be stored in a series of release tanks, to allow testing prior to discharge. Treated wastewater could be pumped back into the wastewater treatment plant for additional treatment if needed.
- During dry years or dry seasons about half of the treated wastewater will be reused in the refinery or stored on-site for fire protection.

The design of the WWTF in the FEIS is at a preliminary stage. Final design of the wastewater treatment plant will not be completed until during or after the final design of the refinery.

B. How Do the Revised Effluent Limits Change Preliminary Design of the WWTF?

The preliminary design of the WWTF would be the same for both the permit limits in the FEIS and the revised permit limits. No specific treatment units were identified in the preliminary design of the wastewater treatment plant for the refinery. Instead, the environmental analysis and permit application included general manufacturers' descriptions of the equipment units, ranges of anticipated hydraulic capacity and removal performance, and design factors.

Tables 3 and 4 below, compare the anticipated treated wastewater quality from the NPDES permit application, the draft permit limits in the FEIS and the revised discharge limits for the technology based effluent limits that EPA has revised. Most of the limits in the permit are water quality based, as noted in Table 1 by footnotes “b” and “c”, and those limits are unchanged.

Table 3 – Comparison of Anticipated Effluent Quality and Effluent Limits

Effluent Characteristic	Anticipated Wastewater Quality from Permit Application ¹				FEIS ²		Lbs/day Limits Converted to Concentrations ⁵		Proposed Revised Limits ²		Lbs/day Limits converted to Concentrations ⁵	
	Daily Max. (lbs/day)	30-day Average (lbs/day)	Daily Max. (mg/L)	30-day Average (mg/L)	Daily Max. (lbs/day)	30-day Average (lbs/day)	Daily Max. (mg/L)	30-day Average (mg/L)	Daily Max. (lbs/day)	30-day Average (lbs/day)	Daily Max. (mg/L)	30-day Average (mg/L)
BOD ₅	8.7	3.6	30	30	81	43	128	68	47.5	25.3	74.74	39.85
COD	33.3	13.8	115	115	500	255	788	402	293.5	149.7	461.77	235.47
TSS	4.4	1.8	15	15	55	35	87	55	32.1	20.4	50.57	32.11
Oil and Grease	7.25	3.0	25	25	25.4	13.7	40	22	14.8	8.0	23.34	12.6
Phenolic Compounds	0.09	0.04	0.3	0.3	0.59	0.29	0.93	0.45	0.35	0.17	0.55	0.27
Total Chromium	0.0	0.0	0.0	0.0	1.22	0.35 no change	1.9	--	0.71	0.35 no change	1.12	--

1. NPDES permit application for the MHA Nation Refinery submitted November 9, 2004
2. From Table 8 in draft NPDES Permit Fact Sheet in Appendix C of the FEIS
3. From Table 4 in Amendment 1 to NPDES Permit Fact Sheet
4. The official discharge limits for technology based effluent limits are in pounds per day. The pounds per day limits have been converted to concentrations using the estimated maximum and average daily flows for purposes of comparing levels of wastewater treatment and the types of treatment unit performance that would be needed to meet the permit limits.
5. Under Alternative 4 of the DEIS, maximum flow is expected to be 76,320 gpd and average 28,800 gpd. Using the maximum flow would be protective of technology requirements regardless of recycle rates or choice of discharge alternative.

Table 4 – Comparison of Anticipated WWTF Performance and Concentrations Calculated from Permits Limits¹

Effluent Characteristic	Permit Application	FEIS	Revised Limits		Permit Application	FEIS	Revised Limits
	Daily Max. (mg/L)	Daily Max. (mg/L)	Daily Max. (mg/L)		30-day Average (mg/L)	30-day Average (mg/L)	30-day Average (mg/L)
BOD ₅	30	128	74.74		30	68	39.85
COD	115	788	461.77		115	402	235.47
TSS	15	87	50.57		15	55	32.11
Oil and Grease	25	40	23.34		25	22	12.6
Phenolic Compounds	0.3	0.93	0.55		0.3	0.45	0.27
Total Chromium	0.0	1.9	1.12		0.0	no change	no change

1. The official discharge limits for technology based effluent limits are in pounds per day. The calculated concentrations in this Table are used to evaluate the anticipated performance of the wastewater treatment plant and the revised pounds per day permit limits.

The preliminary design of the WWTF is capable of achieving the discharge effluent concentrations for both discharge limits specified in the FEIS and in the revised limits. As described in the permit application, the anticipated performance of the proposed WWTF is more stringent than the revised permit limitations with the exception of the oil and grease technology-based limit. There is an additional oil and grease permit limit of “no visual sheen” which has not changed. The “no visual sheen” limit would be more stringent than the revised technology based oil and grease limit for most discharge situations. The refinery proponent may opt to increase the reliability of oil and grease removal in the final design of the WWTF by selecting a larger treatment unit or increasing air flotation.

Compliance with the chromium limits would be achieved through operational practices instead of wastewater treatment. The unchanged 30 day average total chromium limit (based on water quality standards) is more restrictive than the technology-based daily maximum limit. Although the daily maximum limit increases, little additional chromium could be discharged under the daily limit without affecting the stringent monthly average limit.

C. Environmental Consequences of Changing Effluent Limits

For all environmental resources and issues of concern, the environmental impacts from the refinery wastewater treatment plant discharging to meet the FEIS permit limits or the revised effluent limits discussed herein would be the same or very similar. As mentioned previously, the WWTF is in preliminary design. In final design, the WWTF could be slightly larger, could include units from different equipment manufacturers or the units could be configured differently than contemplated in the application or FEIS. These types of potential changes would be typical for facilities during final design with or without the revised permit limits.

Assuming a slightly larger WWTF would be specified in the final design, the facility would still fit within the general footprint of the WWTF proposed in the FEIS making the construction or land disturbance impacts the same as in the FEIS. Three resource issues have been evaluated further for potential for changes in impacts: surface water quality, air quality and hazardous waste generation.

Surface Water Quality

Surface water quality would improve slightly for discharges under the revised NPDES permit. The revised effluent limits for BOD and COD would potentially reduce the discharge of constituents which could consume instream oxygen in the tributary to the East Fork of Shell Creek. The revised permit also contains limits for dissolved oxygen which remain unchanged. It is unlikely that the change in effluents limits would be discernible in the tributary. Other factors such as the discharge rate and stream conditions would tend to have more effect on the tributary than the revised discharge limits. The reduction of the oil and grease limits would not be discernible in the tributary, as both the FEIS and revised permits prohibit the discharge of any wastewater with a visible sheen. The average total chromium limit remains unchanged, as the limit is based on water quality standards to protect aquatic life.

Air Quality

Refinery wastewater treatment plants can be sources of volatile organic compounds (VOC) air emissions. VOC dissolved in the refinery wastewater can be stripped into the air during refinery wastewater collection and treatment. For that reason, EPA promulgated regulations at 40 CFR 60, Subpart QQQ requiring all refineries to control VOC from the oily wastewater sewer system, oily wastewater holding tanks and oil and water separators. These regulations generally require covers, closed ventilation systems and a control device for VOC emissions. The application of VOC controls required by EPA's air regulations would be the same for a WWTF designed to meet the FEIS permit limits or the revised permit limits. With the required controls, any changes in VOC emissions from the WWTF would be indistinguishable from the WWTF emissions for the FEIS effluent limits.

Hazardous Waste

The refinery WWTF designed to meet the revised effluent limits may generate slightly more sludge and DAF float (oil, grease and solids skimmed from the DAF unit). As described in the FEIS on pages 2-52 and 2-53, sludges from the API separator and the bio-treatment unit, and DAF float are listed hazardous wastes under the Resource Conservation and Recovery Act (RCRA). The impacts will be the same as described in the FEIS in Section 4.5 on pages 4-42 through 4-46. The refinery would be a large quantity generator of hazardous wastes under the RCRA regulations. The MHA Nation would need to ensure that hazardous waste from the refinery was properly accumulated and managed on-site in tanks and containers, in accordance with 40 CFR Part 262, 265, Subparts I and J, and other applicable requirements including, but not limited to, the land disposal restrictions. No hazardous waste would be permitted to be discharged to or accumulate in surface impoundments or septic systems on site. The hazardous waste would then be transported to an approved facility in compliance with the RCRA regulations.

V. Conclusion

This SIR summarizes EPA's analysis of whether the impacts associated with the revised NPDES permit discharge limits for six parameters, are significant enough to warrant preparing a supplemental EIS. EPA considered the following criteria:

- Are there any new, substantial environmental impacts from the project?
- Are there any new resources or issues with significant impacts to the human environment which were not considered in the EIS?
- Do the proposed project changes substantially change the environmental impacts or the methodologies needed to analyze the environmental impacts?

After considering the above criteria and the regulation at 40 C.F.R. § 1502.9(c), EPA finds that a Supplement to the FEIS is not warranted. After a thorough interdisciplinary review, we find that the proposed change in the six effluent limits will not significantly change the proposed action or its impacts.