



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, WA 98101-3140

OFFICE OF
ENVIRONMENTAL REVIEW
AND ASSESSMENT

November 14, 2017

Ellen Lyons, Regulatory Project Manager
United States Army Corps of Engineers
Regulatory Division (1145)
CEPOA-RD-NF
2175 University Avenue, Suite 201E
Fairbanks, Alaska 99709-4927

Dear Ms. Lyons:

We have reviewed the US Army Corps of Engineers Draft Environmental Impact Statement for the Nanushuk Project, North Slope, Alaska (EPA Region 10 Project Number: 16-0010-COE, CEQ Project Number: 20170169). Our review was conducted pursuant to the National Environmental Policy Act, the Council on Environmental Quality regulations and Section 309 of the Clean Air Act. We also take this opportunity to express our appreciation for allowing us to serve as a cooperating agency on this project.

The EPA's review of the Draft EIS prepared for the proposed action considers anticipated environmental impacts and the adequacy of the EIS in meeting procedural and public disclosure requirements of NEPA. Overall we found the Draft EIS to be well-written, informative, representative of a wide range of reasonable alternatives and responsive to the issues identified during scoping. We appreciate the inclusion of the Spill Risk Assessment, Prevention and Planning discussion (Chapter 4), the Scoping Summary Report (Appendix II), Alternatives Development Summary (Appendix III), Draft Baseline Human Health Summary (Appendix XI) and the many helpful tables and diagrams. We also appreciate the incorporation of Inupiaq traditional knowledge and place names.

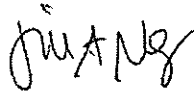
Since the Draft EIS does not identify a preferred alternative, the EPA has assigned one rating to the Draft EIS: EO-2 (Environmental Objections-Insufficient Information). The adequacy rating is primarily due to the need for additional analyses to fully disclose potential impacts to air quality and air quality related values. The impact rating reflects the EPA's objections to the level of impacts to several resources, particularly due to potential reduction in air quality and the large amount of fill in relatively pristine wetlands. These impacts are associated with each of the action alternatives (Alternatives 2, 3, 4 and 5). We note, however, that Alternative 5 may be the environmentally preferable alternative because it requires the least amount of fill, has the shortest road length, has the fewest vertical support members, has a less-impacting orientation and has a central processing facility location that is farther away and more southerly than the other action alternatives.

We have also identified recommendations to improve the analysis for impacts to air quality as well as wetlands and aquatic resources. Further information regarding these issues and our recommendations is provided in the detailed comments, attached.

We note that although the applicant has submitted a revised Clean Water Act Section 404 permit application, this Draft EIS was developed using information from a previous application. While we support the changes identified in the latest application, our review and rating are based on the information contained in the Draft EIS. We anticipate that the Final EIS will reflect recent changes in the revised application where relevant, which may in turn reduce impacts associated with all action alternatives.

Thank you for this opportunity to provide comments on the Draft EIS. If you have any questions, please contact Jennifer Curtis of my staff at (907) 271-6324, or curtis.jennifer@epa.gov, Gayle Martin, Nanushuk Project Manager, at (907) 271-5097 or martin.gayle@epa.gov, or me at (206) 553-1841 or nogi.jill@epa.gov.

Sincerely,



Jill A. Nogi, Manager
Environmental Review and Sediments Management Unit

Enclosures:

1. Detailed Comments
2. U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements

**U.S. ENVIRONMENTAL PROTECTION AGENCY DETAILED COMMENTS ON THE
U.S. ARMY CORPS OF ENGINEERS NANUSHUK PROJECT
DRAFT ENVIRONMENTAL IMPACT STATEMENT**

We offer detailed comments and recommendations below for your consideration in development of the Final EIS.

Air Quality

For air quality, our primary comments and recommendations focus on the analysis of 1-hour NO₂, and inclusion of fugitive, intermittent, mobile and Prevention of Significant Deterioration emissions increment analysis. We also have recommendations regarding modeling, as well as indirect impacts and impacts to air quality-related values. We have objections to the potential level of air quality impacts given the close proximity of the project to the community of Nuiqsut and encourage all practical and necessary mitigation to reduce those impacts.

Analysis of 1-hour NO₂ Impacts

The Draft EIS does not include an analysis of impacts to the 1-hour NO₂ National Ambient Air Quality Standards. Assessing 1-hour NO₂ impacts to the National Ambient Air Quality Standards is important because the total emissions of NO₂ for this project may be substantial given the emissions typically associated with oil development activities and because potential air quality impacts are a key concern of the nearby community of Nuiqsut. In addition, it is unusual to omit evaluation of a specific averaging time of a criteria pollutant emitted by the proposed activity in an air quality impacts analysis. We recommend full disclosure of possible air quality impacts, for all criteria pollutants, including 1-hour average NO₂, and associated averaging times in the Final EIS. If the analysis shows a potential for adverse 1-hour NO₂ impacts, we further recommend that the Final EIS include mitigation measures to reduce those impacts, such as appropriate operational or mechanical controls.

The decision not to analyze potential impacts to the 1-hour NO₂ National Ambient Air Quality Standards in the Draft EIS appears to be supported by a statement that this National Ambient Air Quality Standards, "is exempted from modeling for the purposes of minor-source permitting" under State of Alaska Air Quality regulations. If this statement is carried forward to the Final EIS, we recommend that the Final EIS clarify that analysis of 1-hour NO₂ may be exempted from the modeling analysis of a minor-source permit application under 18 AAC 50.540(I), however, in these cases 1-hour NO₂ impacts are still evaluated internally by the Alaska Department of Environmental Conservation). The application analysis exemption is determined by the Alaska Department of Environmental Conservation on a case-by-case basis, after an internal review of the specific circumstances and magnitude of emissions. The Alaska Department of Environmental Conservation's procedures ensure 1-hour NO₂ National Ambient Air Quality Standards are protected under its minor New Source Review program and it is possible that Alaska Department of Environmental Conservation may require 1-hour NO₂ modeling of the Nanushuk project for minor-source air permitting.

Inclusion of Fugitive, Mobile and Intermittent Sources in Modeling Analysis

Fugitive, mobile, and intermittent emissions were not included in the modeling analysis and are assumed to be accounted for in the background ambient air data. Because the project represents a substantial increase of air pollutant emissions in this area, current background air monitoring data does not represent future impacts from these sources. We recommend that modeling be conducted for the Final

EIS using area or volume sources and reasonable operation assumptions regarding temporal and spatial distribution of emissions to account for fugitive and intermittent sources in the modeling analysis. This is an approach used for other recent oil and gas NEPA analyses of projects on the North Slope, such as Greater Mooses Tooth. If the revised analysis shows a potential for adverse air quality impacts, we recommend that the Final EIS include additional mitigation measures to address those impacts.

The Draft EIS and the Air Quality Impact Analysis base the decision to not explicitly model fugitive dust and mobile equipment emissions by hypothesizing that the modeling would over-predict actual ambient air impacts by a wide margin. To support this hypothesis, the Air Quality Impact Analysis references SECOR 2002, which is a document that demonstrates a method to estimate background PM₁₀ concentrations at Nuiqsut by removing the influence of the natural exceptional events. The Air Quality Impact Analysis does not refer to AERMOD capabilities, however, nor to short-term fugitive emission modeling scenarios, and therefore it may not provide sufficient justification for omitting these emissions from the modeling analysis. We recommend that the Final EIS and the Air Quality Impact Analysis discuss these additional points and that they discuss more broadly modeling of fugitive dust and mobile equipment emissions.

While it may not be practical to model the intermittent sources under a continuous potential-to-emit scenario, modeling of intermittent and transient sources can be done using reasonable assumptions about the spatial and temporal distributions of emissions, using area or volume sources. It is important to account for all project emissions in the modeling analysis, especially when the sum of the intermittent source emissions may possibly represent a sizeable fraction of total project emissions. We recommend modeling the intermittent sources in grouped parameterized area or volume sources, taking into account the likely frequency and spatial distribution of operations. We note that Air Quality Impact Analyses of other oil and gas projects on the North Slope have used grouped area and volume sources to parameterize the emissions of intermittent and fugitive sources. The EPA's guidance for treatment of intermittent sources is available in the March 1, 2011 Memo from Tyler Fox, EPA Office of Air Quality Planning and Standards, "Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO₂ National Ambient Air Quality Standard."¹ Generally, this memo recommends modeling by average hourly rates.

Prevention of Significant Deterioration Increment Impacts Analysis

According to the Draft EIS, Prevention of Significant Deterioration increment consumption was not evaluated because all new sources are minor sources exempt from Prevention of Significant Deterioration review under Alaska's State Implementation Plan. Given the complexity of the modeling required for a full PSD consumption analysis, we agree that it could be burdensome to conduct such an analysis of minor source projects. We recommend a simplified consumption analysis for the Sensitive Class II areas, and at the receptors located in the village of Nuiqsut, that includes non-temporary project emissions only. The increments, as thresholds of significant deterioration of air quality, provide a basis for quantifying the significance of air quality deterioration due to the project's emissions at sensitive receptors. Although significant deterioration does not represent a public health issue if the National Ambient Air Quality Standards are not exceeded, it does represent an issue that the State may need to manage to satisfy Clean Air Act requirements.

¹ https://www.epa.gov/sites/production/files/2015-07/documents/appwno2_2.pdf.

We also note the Air Quality Technical Report (Appendix V) discusses the EPA's approval of Alaska's State Implementation Plan and minor-source permitting program, which does not require Prevention of Significant Deterioration increment analysis under its minor source permitting program. Specifically, the report states that, "EPA is satisfied that emissions from minor stationary sources do not represent a threat to Prevention of Significant Deterioration increment consumption." The assumption made in the Draft EIS that the EPA does not consider minor sources as a factor in increment consumption is inaccurate and must be corrected in the Final EIS. While Prevention of Significant Deterioration increment consumption analysis is not required under Alaska's Minor New Source Review permitting program, minor sources may still consume increment if the Minor Source Baseline Date has been triggered for given pollutants in the Air Quality Control Region of the project. The state of Alaska manages Prevention of Significant Deterioration increment consumption through its Prevention of Significant Deterioration permitting program and also through periodic assessments of consumption by all sources. We recommend this discussion be clarified in the Final EIS.

Analysis of Impacts to Air Quality Related Values

The Draft EIS concludes that an evaluation of air quality-related values impacts at the Sensitive Class II areas identified is not required because the areas are greater than 50 km away. The statement in the Draft EIS on page... that says, "According to FLAG guidance ... any stationary source located greater than 31 miles (50 km) from a Class I or Class II area is considered to have negligible impacts on all AQRVs," is incorrect. The FLAG 2010 guidance provides methods and procedures to evaluate air quality-related values impacts of sources greater than 50 km distance from a federally managed area. In addition, the Air Quality Impact Assessment for the Nanushuk Project contains an air quality-related values Q/D screening analysis that demonstrates that the aggregated project emissions are below the level of concern for Air Quality-Related Values impacts, given the nearest distances of the project to the Sensitive Class II areas. We recommend that a summary of the air quality-related values Q/D analysis, which has been included in the Air Quality Impact Assessment, also be added to the Final EIS.

Analysis of Impacts of Alternatives

Only Alternative 2 was used for the air quality modeling analysis discussed in the Draft EIS, based on the assumption that it provides the most conservative approach for maximum air quality impacts because the central processing facility and DS1 would be co-located. We understand from our review that Alternative 2 may not provide the most conservative estimate of air quality impacts and may not be sufficient for assessing air quality impacts at Nuiqsut, given the differences in distances of facilities from the village among the alternatives, as the Alternative 3 locations of the Air Quality Impact Assessment and Operations Center are about 3.4 miles (about 25%) closer to Nuiqsut than in Alternative 2. It is therefore likely that higher concentrations are possible at Nuiqsut under Alternative 3 than what is currently reported in Table 3.5-13. The EPA recommends that additional air quality modeling be conducted to assess air quality impacts at Nuiqsut under Alternative 3 conditions, or that additional discussion and analysis be added to the Final EIS to confirm that air quality impacts from the project would not be greater at the Nuiqsut receptors under Alternative 3.

Indirect and Cumulative Air Quality Impacts from Mining Operations

NEPA requires consideration of all direct, indirect, and cumulative impacts. Emissions associated with gravel mining would reasonably be considered indirect impacts of constructing the proposed project. Although existing mines may be operated under current permits, it is still necessary to estimate the amount of increased emissions related to increased utilization of the new roads for mine site access to meet the demands of this project. The emissions from other gravel mines in the vicinity of the project

should not be excluded if the project emissions and mine emissions overlap, possibly resulting in cumulative air quality impacts. We note that the emissions from the Arctic Slope Regional Corporation mine site are of particular concern due to the proximity of the facility to Nuiqsut and the DS3 pad. We recommend an estimate of emissions increase at the gravel mine(s) be included in the Final EIS and the estimated increase of emissions from the Arctic Slope Regional Corporation mine site be included in the modeling analysis. These emissions are a consequence of the project and have the potential to result in air quality impacts at Nuiqsut.

Annual NO₂ Modeling Approach

Modeling of annual NO₂ in the Air Quality Impact Assessment used a reasonable modeling approach that follows EPA guidance. Given the selection of the ozone-limiting method, the modeling results may be highly sensitive to the background ozone data. Consequently, the EPA recommends that the discussion in the Air Quality Impact Assessment be expanded in the Final EIS to describe how the A-Pad ozone data was used in the modeling, the representativeness of the A-Pad data, and a comparison of the A-Pad dataset to average seasonal Nuiqsut ozone concentrations observed in 2013. For example, it would be helpful to clarify whether hourly data was used or whether a conservative single value, or set of monthly average values, was derived for use in the modeling. If hourly data were used, we recommend the Air Quality Impact Assessment summarize how the dataset was developed. We also recommend discussing whether Nuiqsut ozone data were considered, and what factors led to the decision to use A-Pad data.

Applicant's Air Quality Mitigation Measures

The Draft EIS indicates that the applicant has committed to develop a dust control plan to minimize fugitive dust from the project roads and pads. Particulate matter modeling performed for the project assumes that the dust control plan will achieve a 75% control efficiency for fugitive dust. We recommend that the Final EIS include the final dust control plan, including detail on the frequency of application and the volume of water applied to the gravel roadways needed. This information is important to determine whether the project will be able to achieve the stated level of control. Based on our experience with other similar projects, we assert that a 50% control effectiveness is a more realistic number. Other projects in the area have used a 50% control efficiency in their calculations.

In addition to dust control, the Draft EIS includes a list of other mitigation measures the applicant plans to implement. To the extent possible, we recommend that additional detail be included in this list to clarify emission limits as well as the control equipment that will be used. This information is important to ensure that emissions information included in the Air Quality Impact Assessment matches required emission levels, whether by regulation or by applicant commitment.

Hazardous Air Pollutants

We recommend that the Final EIS include additional disclosure of potential cancer risks from the proposed project that is currently included in the Air Quality Impact Assessment. Specifically, we recommend that projected cancer risks in the project area be presented, in addition to projected cancer risk in Nuiqsut. Disclosing this information in the main text will help to demonstrate that excess lifetime cancer risks in the project area do not exceed regulatory benchmarks. In addition, to set the stage for the analysis, we recommend explaining in Section 3.5.3 how cancer risk evaluation is a component of determining potential impacts from hazardous air pollutants. Finally, we recommend that additional discussion of cancer risk also be added to the disclosure of potential hazardous air pollutants impacts in Chapter 3.20 Human Health and Safety Section.

Finally, the Air Quality Impact Assessment incorrectly states that reference concentrations are used to assess the potential carcinogenic effects from exposures to hazardous air pollutants. We recommend that this be revised in the Final EIS to explain that inhalation unit risks or regional screening levels are used to assess carcinogenic potency.

Aquatic Resources and Clean Water Act Section 404

As noted in our cover letter, we have objections to the extent of the potential impacts to wetlands and other waters associated with this project because each alternative requires the fill of hundreds of acres of previously undisturbed wetlands, wetlands that are likely functioning at the highest level for these given types of wetlands. We offer the following comments and recommendations to improve the analysis of impacts as well as to mitigate some of these impacts.

Project Description and Changes from the Public Notice

As mentioned in our cover letter, the Draft EIS states that the Applicant recently submitted a revised application (July 10, 2017) but that these changes are not reflected in the Draft EIS. This revised application incorporates numerous changes to the proposed action, such as the reductions in access road width, from 38' to 35', and side slope, from 3:1 to 2:1. Other changes include the removal of Lake MC7903 access road and use of Lake L9211 for potable water and no longer upgrading the existing roadways. There is also a reduction in the number of culvert batteries, from 7 to 5. We recommend that a clear description of any project changes be provided in the Final EIS and be applied to all action alternatives where relevant.

The change in side slope to 2:1 appears to be a direct contradiction to the applicant-proposed mitigation measure listed in Table 6.3-1. We recognize that changing the side slope to the roads may have adverse impacts to caribou migration and subsistence users. We request that any potential impacts to caribou crossing be analyzed and appropriate mitigation, such as providing subsistence and wildlife crossing ramps, be identified.

Possible Variations to Proposed Alternatives

To further minimize impacts, we recommend that the Corps analyze a variation to the Alternative 5 configuration to avoid the lake complex of Lake MC7903 and the three smaller lakes by rerouting the alignment south of the complex. While this may slightly lengthen the road, it may reduce secondary impacts to the complex. This may also cause a slight shift to the Central Processing Facility location and require moving the Operations Center, but may also reduce the need for the culvert battery between the lakes, as depicted in Figure 3.6-2. If this variation is not practicable, please provide information in the Final EIS as to why it is not.

Another configuration option is to utilize the existing Mustang Road (as proposed for Alternatives 4 and 5), but then turn northwest to tie into the proposed Alternative 2 configuration. This altered alignment may reduce impacts and allow for consolidation of the Central Processing Facility and DS1, as well as increase the distance between the Central Processing Facility and the community of Nuiqsut.

Compensatory Mitigation

CEQ NEPA regulations require that the alternatives and impacts analysis address mitigation measures, including measures that compensate for impacts.² To ensure a NEPA analysis that sufficiently addresses direct, indirect and cumulative impacts from the proposed project, the EPA recommends that the Final EIS include a draft compensatory mitigation plan, including mitigation to offset unavoidable losses of waters of the United States. We note that the Draft EIS does not include a compensatory mitigation plan. The 2008 Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, requires that any Section 404 permit include compensatory mitigation sufficient to replace lost aquatic functions and values, to the extent practicable.

Recommendations for Mitigation

There are several contaminated sites near Oliktok Point and elsewhere on the North Slope. We recommend that cleanup of such sites be considered for possible mitigation opportunities. In addition, although the Draft EIS states that gravel reclamation from abandoned pads, roads, and airstrips is "likely insufficient to meet the Project needs," we request that the Final EIS include an analysis of abandoned gravel infrastructure to determine if some portion of the gravel requirements could be met without impacting undisturbed wetlands through mining new gravel. This should be part of the avoidance and minimization mitigation sequence.

It is stated that rehabilitation of the site upon project closure would be determined throughout the permitting process (presumably after the EIS process) or upon project closure. Rehabilitation of a site this large is critical to ensuring that habitat lost may be restored. We recommend additional discussion concerning site closure and rehabilitation be included in the Final EIS. Similar to the discussion of site remediation from oil spills, we also recommend that replacement of tundra vegetation by seeding and sodding be considered as a possible technique for site rehabilitation.

Specific Comments

The Draft EIS states: "USACE and EPA authorize CWA permits." Please note that only the Corps has the authority to issue a Section 404 permit, whereas EPA has other related authorities under Section 404. We suggest that the language be revised to make this clear.

In Figure 3.8-2, "ice roads" is entered twice. Please verify and if accurate, please explain the difference between the two entries with respect to the effects analysis method as one deals in acres and the other in miles of road.

Table 3.8-9 indicates the numbers of National Wetland Indicator classes that are impacted by gravel infrastructure, by alternative. It appears to be missing a line. Also, please calculate NWI type per acre out to two decimal places to differentiate between all alternatives in the Final EIS.

On page 3-286, in the bulleted list of results from Alternative 5, the Draft EIS states that Alternative 5 would have "the smallest loss of wetland diversity (the same as Alternative 2, direct loss of 1.9 NWI types per acre), see Table 3.8-9." Table 3.8-9 does not contain complete data, however, as noted above. Based on the complete data recently made available to the EPA, the NWI types per acre numbers are not the same between Alternatives 2 and 5. Rather, when carried out to a second decimal place Alternative 2 has a direct loss of 1.88 NWI types per acre, and Alternative 5 has 1.94. Using the wetland diversity

² 40 C.F.R. § 1508.20.

metric that has been developed for this Draft EIS, it appears that Alternative 5 has the second smallest loss of wetland diversity, and that Alternative 2 has the smallest loss of wetland diversity. As in our previous comment, we recommend that the conclusions in the bulleted lists on pages 3-285 and 3-286 reflect the loss of wetland diversity amounts in the revised Table 3.8-9.

Figure 3.8-30, showing cumulative effects analysis areas for wetlands, seems to be missing several oil development sites, including those already built as well as proposed. For example, ConocoPhillips' Shark Tooth project (DS-2S, drill pad and access road) is not shown. In addition, Hilcorp recently applied for numerous pad expansions, which are also not shown. Hilcorp's new Moose Pad is shown, but the access road is not. Please also note that there is not a "Mine Site S" as shown. ConocoPhillips, although having originally proposed a new mine site for its Shark Tooth project, elected to haul gravel from the existing Mine Site C to build the Shark Tooth project. Complete and accurate information regarding the extent of actual and proposed development in each watershed is critical to a meaningful cumulative impacts analysis. Please verify the accuracy of the map.

In addition, in Table 3.8-17, no acreages are given for many of the listed projects or inaccurate acreages are given. For example, acreages are missing in Table 3.8-17 for 6 large mine sites (B, C, D, E, F, and S), and 7 other oil developments (Meltwater, Putu, "Kuparuk", Palm, Cascade, Tarn and Moose Pad). Further, the acreage for Kuparuk Landing Area appears inaccurate at 3.4 acres. In order to calculate the total acreage of gravel fill for the Kuparuk Landing Area, the entire POA-1980-413 file, including its multiple modifications, should be reviewed. A cursory review of a Google Earth image yields about 40 acres. Please review available data sources, such as the Corps' permit tracking system (ORM), to verify fill acreages and revise the EIS as needed. To ensure a meaningful cumulative impacts analysis, the revised analysis should include accurate and complete information on acreages affected by past, present and reasonably foreseeable future actions in the cumulative effects analysis area.

Reasonably Foreseeable Future Actions

Although Table 3.1-1 is not an exhaustive list of activities, because the gravel mine for Liberty is identified in this table, and Figure 3.1-1 identifies the Liberty Project Area, we recommend that Table 3.1-1 include the Liberty Development Project as a reasonably foreseeable future action.

Baseline Human Health Summary

If available, we recommend that the Draft Baseline Human Health Summary be replaced with the final document in the Final EIS, and that the human health analysis (Section 3.20) be updated to reflect any pertinent changes in this report.

**U.S. Environmental Protection Agency Rating System for
Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.