

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY****REGION 8**

1595 Wynkoop Street
Denver, CO 80202-1129
Phone 800-227-8917
www.epa.gov/region08

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Ref: 8ORA-N

Joshua Wayland, PhD.
Surface Transportation Board
c/o ICF
9300 Lee Highway
Fairfax, Virginia 22031
Attn: Environmental filing, Docket No. FD 36284

Dear Mr Wayland:

The U.S. Environmental Protection Agency Region 8 has reviewed STB's (Board) Office of Environmental Analysis (OEA) Final Environmental Impact Statement (EIS) for the Uinta Basin Railway Project (CEQ No. 20210109). OEA is preparing this project to analyze the impacts of the Seven County Infrastructure Coalition's (Coalition) proposal to construct and operate a rail line connecting the Uinta Basin, in Utah, to the national rail network. In accordance with our responsibilities under Section 102(2)(C) of the National Environmental Policy Act (NEPA) and pursuant to Section 309 of the Clean Air Act (CAA), the EPA provides the following comments on the Final EIS.

OEA has identified the Whitmore Park Alternative as the environmentally preferred alternative. This alternative proposes to develop an approximate 88-mile line from terminus points in Myton and Leland Bench, Utah to the national rail network near Kyune, Utah. The new railway is proposed primarily as an alternative competitive means to move crude oil out of the Uinta Basin. The Final EIS identifies that the rail line is not expected to replace existing truck traffic and is likely to facilitate further oil and gas development in the Uinta Basin, currently an ozone nonattainment area.

Our focus throughout the NEPA process has been the project's impacts to air quality, water quality, aquatic resources, and environmental justice as well as seeking opportunities to reduce those impacts. We are pleased that the Final EIS includes these resources in the scope of analysis. The Final EIS identifies significant project impacts to water quality and aquatic resources. Further, the Final EIS outlines the major impacts to environmental justice communities, specifically Tribal communities. Beyond our primary concerns, the Final EIS analyzes and identifies significant impacts to noise, vibration, endangered and special status species, land use and recreation and socioeconomics, specifically impacts to private landowners. Identification and evaluation of these project impacts will aid the Board, in their decision-making, whether to grant authorization of the project and to provide recommendations to the Coalition to develop adequate mitigation measures to avoid or minimize impacts of the project. This information will also be useful to stakeholders that will be impacted by the project.

In comments on the Draft EIS, we identified that the air quality modeling assessment contained outstanding as well as new technical issues that would make it difficult to understand the potential impacts

to air quality. We very much appreciate that OEA re-ran the modeling for the Final EIS and incorporated several of our recommendations. This allowed us to better understand and interpret the model results. We do have some outstanding technical concerns that are included in our enclosed detailed comments. We feel that it is valuable to include these comments for the Board to understand the uncertainties that remain in the air quality analysis as they formulate their decision. We hope these comments will additionally be valuable for future rail projects. Lastly, should the Board grant approval of the project we recommend that a monitoring and adaptive management plan for air quality be developed with the Coalition as part of the Record of Decision (ROD) to address the uncertainties of the air quality analysis as well as activities and emission sources that were not included in the analysis.

The OEA has worked extensively with EPA as well as other state and federal agencies to develop this Final EIS. We value this collaborative approach and commend OEA's efforts to engage with stakeholders early and often throughout the development of the EIS. We appreciate the opportunity to participate in the review of this project and are committed to offer any assistance as you develop the ROD. If you have any questions or comments, please contact me at (303) 312-6704, or Matt Hubner of my staff at (303) 312-6500 or hubner.matt@epa.gov.

Sincerely,



Philip S. Strobel
Director, NEPA Branch
Office of the Regional Administrator

Enclosure

Detailed Comments for Uinta Basin Railway Draft EIS

Air Quality

We appreciate OEA conducting updated air quality modeling in the Final EIS to address configuration errors found in the Draft EIS air quality modeling analysis. The updated modeling generated simulations that aligned more closely with the approach outlined in the Air Quality Impact Assessment Modeling Protocol (Appendix M). This allowed us to better understand and interpret the model results. Our comments below identify several recommendations we previously made but were not addressed in the updated Final EIS air quality modeling analysis. Most of these issues would result in air quality impacts that are underpredicted by the model; however, our concerns can be addressed in the ROD and do not rise to the level of recommending a supplemental EIS.

To most efficiently address the limitations of model and the concerns outlined below, we recommend STB work with the Coalition to develop and include a monitoring and adaptive management plan as part of the ROD (Appendix T, page T-252, UBR-DEIS-00431-2). We recommend a conservative approach when determining the level and scope of monitoring and adaptive management necessary to ensure protection for adjacent communities and property owners, especially Tribal and environmental justice communities along the rail line. Adaptive management would be based on a short-term air quality monitoring program in the most likely affected residential areas for both rail construction and operation and provide adaptive actions to ensure human health is protected for any affected individuals. We offer our assistance in designing an effective monitoring strategy. We recommended the following items prior to the issuance of the Final EIS, and they outline the remaining ambiguity that support our recommendation for the implementation of a monitoring and adaptive management program.

Modeled Emission Rates (Appendix T, page T-252, UBR-DEIS-00431-3): We continue to have concerns with the use of emission rates that represent average fleet emissions instead of typical train emissions for short-term modeled impacts. We also have concerns with the response to our comment (RtC) related to the use of average fleet emissions instead of typical train emissions. In particular, the RtC notes that the use of average fleet emissions are standard practices in other air quality planning analyses. While State Implementation Plans and NEPA documents may use average fleet emissions for certain aspects of the analysis, they are not always directly relevant to impact analysis for short-term standards. We do not agree that use of average fleet emissions or assuming Tier 2, Tier 2+, or mix of Tier locomotives for the modeled train would result in a worst-case analysis scenario. Comparison of the emission rates used in the updated modeling to the emission rates of a Tier 2 train using eight locomotives to illustrate the potential variability in emissions and impacts would have been a useful approach.

The RtC also notes that the use of typical fleet emissions is standard practices in NEPA. NEPA air quality assessments should provide a reasonable representation of the impacts resulting from an action. This means that the modeling should include a scenario that assumes a commonly used train rather than a hypothetical train to understand a reasonable upper bound of the potential air quality impact. Using conservative emission estimates also provide a statistical representation of potential impacts over a range of time periods (short- and long-term periods) and varying meteorological conditions. To address this concern, explaining that average fleet emission factors may not capture the maximum and short-term air quality impacts from a train that could be operating and be a lower tier (and higher emission rate) than the future-year fleet average would have been appropriate

Vertical Dispersion Assumptions (Appendix T, pages T-253 to T-262, UBR-DEIS-00431-6/UBR-DEIS-00431-7/UBR-DEIS-00431-28/UBR-DEIS-00431-29/UBR-DEIS-00431-30): The RtC notes that the Air Quality Impact Assessment Modeling Protocol (Appendix M) has been revised to address our comment. Some of the additional information provides details to better understand the vertical dispersion assumptions; however the following questions and concerns remain:

- Stack Height: Additional analyses would be needed to support the inclusion of stack heights in the plume rise calculations in the approach used in the CARB 2004 report. Without that analyses, use of the stack heights could equate to the concentrations being too dispersive, generating under-predictions in the air quality impacts.
- Plume Rise Values: The revisions to Appendix M do not address why the plume rise values do not align with the CARB 2004 Report, where plume rise values generally range from about 0.6 m to 10.3 m and generally decrease with increasing notch (i.e., notch 1 to notch 3) for Stability D and generally increase with notch for Stability F. For this project, the plume rise appears to increase with notch for daytime values (i.e., Stability D) and the daytime values may be over-estimated by a factor of two or more. Without more information, the plume rise values are not consistent with the CARB 2004 report and are a factor of two or more than the values in the CARB 2004 report. As a result, this could equate to the concentrations being too dispersive, generating under-predictions in the air quality impacts.
- Instantaneous Plume Rise Assumption: The revisions to Appendix M do not address how assuming instantaneous plume rise could impact the air quality impacts. Plume rise generally increases over time, but the approach used for this project assumes instantaneous plume rise. As a result, the modeling analysis could generate under-predictions due to the plume being too dispersive at the emission point.
- Use of AERSCREEN for Dispersion Assumptions: The revisions to Appendix M, Footnote 7, notes that AERSCREEN cannot be used in place of SCREEN3 because it would require an evaluation of AERSCREEN. AERSCREEN is a regulatory-approved screening tool that has replaced SCREEN3. Therefore, AERSCREEN would not require an evaluation and could be used in place of SCREEN3 because the core of AERSCREEN is based on SCREEN3. Therefore, correcting or removing the details related to AERSCREEN and SCREEN3 and explaining how the values from SCREEN3 could be different from AERSCREEN would be appropriate

Turbulent Mixing Assumption (Appendix T, page T-254, UBR-DEIS-00431-8): The RtC does not address our comment related to the turbulent mixing assumptions. Therefore, we note that the width of the sources assumed in the modeling (i.e., instead of six meters, nine meters, which is the width of the train plus three meters on either side, was assumed to allow for turbulent mixing from a moving train) may double-count the dispersion characteristics because plume rise is being considered in the stack parameter assumptions. As a result, the predicted air quality impacts may be under-predicted for this project.

Configuration for OLM (Appendix T, page T-256, UBR-DEIS-00431-11): The RtC and Appendix M note that “OLMGROUP ALL” will be incorporated in the updated modeling but is technically not needed because the modeling only uses a single area source or line area sources. This is not accurate, and the confusion may be related to the idea that line area sources are being used in the model to represent the sources. As we have explained and noted in previous comments and discussions with OEA, the model does not have “line area” source type options. The model either has “line” or “area” source types but the model can treat a line of area source types. Further, the model input files show that several area type sources were included in the modeling. Therefore, OLMGROUP ALL is needed because multiple sources are included in the modeling.

FASTAREA and FASTALL (Appendix T, page T-256, UBR-DEIS-00431-12): The RtC and Appendix M note that FASTAREA is sufficient for NEPA assessments and sensitivity testing shows that FASTAREA generates slightly higher concentrations for most receptors. We are not aware of guidance and testing that support these conclusions. Further, detailed analyses are needed to illustrate and demonstrate that FASTAREA provides conservative model results. For instance, the predicted concentrations that are lower with FASTAREA could be associated with, and be important for, the receptors with the highest predicted impacts, which are used to calculate the maximum impacts. Removing these conclusions and simply stating that FASTAREA and FASTALL were not used in the updated modeling would be appropriate.

CMAQ Model Performance (Appendix T, page T-263, UBR-DEIS-00431-32): The RtC notes that a reference to a BLM study has been added to the NEPA document to support CMAQ's ability to replicate wintertime ozone. This is not a comprehensive response and summary of the model's performance to support the conclusion that CMAQ can replicate wintertime ozone. In fact, the details of the ARMS Modeling Project and Monument Butte EIS air quality modeling documents show that CMAQ has challenges in predicting ozone and wintertime ozone. Removal of these statements and adding the details of the Model Performance Evaluation associated to these projects to explain the uncertainty in the model performance, particularly related to the model's performance for wintertime ozone, would be appropriate.

FLAGPOLE Option used in AERMOD (Appendix M, Modeling Protocol, page 3-3): The Modeling Protocol in the Final EIS notes that a flagpole height was included in the modeling to account for the emissions being released above the ground and to be conservative. In general, this equates to results being predicted at 1.8 meters above the ground, instead of at ground-level. It should be noted that we only found that the Annual NO₂ simulation for the Myton Wells Draw scenario assumed a flagpole height of 1.8 meters instead of zero (i.e., at ground-level). Simulations for the other scenarios did not include a flagpole height. Without additional information, it is not clear why the Myton Wells Draw scenario included in this configuration and the other scenarios excluded it. Further, it is not clear that this approach would be conservative because the height of the emissions and model concentrations are already being considered in other components of the model (i.e., release parameters and terrain assumptions). It is likely that this configuration is double counting the height assumptions and could generate more dispersive characteristics that could result in under-predictions in the model concentrations. We note our concerns with this approach because this configuration does not align with EPA's *Guideline on Air Quality Models*.