
From: Wayland, Joshua
Sent: Monday, December 13, 2021 1:54 PM
To: Strobel, Philip; Hubner, Matt
Cc: Gosselin, Danielle; Miller, Barbara; Rogers, Debra
Subject: EPA Comments on Uinta Basin Railway Final EIS
Attachments: EI_31241.pdf

Dear Mr. Strobel,

This email is to follow up on the attached letter, dated September 2, 2021, to the Surface Transportation Board's Office of Environmental Analysis (OEA) regarding the Final Environmental Impact Statement (EIS) for the proposed Uinta Basin Railway in Utah (Docket No. FD 36284). OEA issued the Final EIS for the proposed rail line on August 6, 2021 following extensive consultation with Region 8 of the Environmental Protection Agency (EPA) and other interested agencies.

Most of the issues raised in the letter had previously been raised in EPA's comments on the Draft EIS, which OEA addressed in the Final EIS. Those issues included the applicability of a monitoring and adaptive management plan for addressing potential air quality impacts from the proposed rail line; the modeled emission rates used in the dispersion modeling effort that was part of OEA's air quality analysis; the vertical dispersion and turbulent mixing assumptions that OEA used in the dispersion modeling; the use of the OLMGROUP ALL and FASTAREA options in the modeling; and a citation for a statement in the EIS about the performance of the CMAQ photochemical modeling system.

In addition to the issues that EPA previously raised and that OEA previously addressed, the letter also raises a new issue related to the dispersion modeling procedure that OEA used to support the air quality analysis. That new issue has to do with the use of receptor "flagpole" height of 1.8 meters (corresponding to breathing height) instead of a receptor height of 0.0 meters (corresponding to ground level) for the Annual NO₂ simulation for the Myton Wells Draw scenario. The letter states that "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." To address this concern, OEA reran the Annual NO₂ simulation for the Myton Wells Draw scenario in September 2021 assuming a flagpole height of 0.0 meters and found the same maximum concentration as when the flagpole height was set to 1.8 meters. Therefore, the modeling results reported in the Final EIS for this modeling scenario are accurate regardless of whether the receptor height was set to 0.0 meters or 1.8 meters.

To further evaluate the potential concern that the use of a flagpole height option might affect modeling results, OEA conducted sensitivity testing in October 2021 to determine the extent to which differences would be seen between ground level and breathing height concentrations. For this test, we used the 1-hour NO₂ scenario, which is not averaged over annual or 24-hour periods, because the averaging process tends to diminish differences in the modeled responses. We used the Myton Indian Canyon/Whitmore Park scenario because it is the modeling scenario with the highest modeled concentration and would therefore be expected to show the strongest response to changes in receptor heights. The air dispersion model for the 1-hour NO₂ Myton Indian Canyon/Whitmore Park scenario was run with identical input except that one simulation was modeled at breathing height (1.8-meter flagpole height) and the other was modeled at ground level (0.0-meter flagpole height). Results were compared to the 1-hour NO₂ standard, which is the 98th percentile of the maximum daily 1-hour NO₂ concentration averaged over three years. In both cases, the modeled concentrations reported identical results to six significant figures of 111.401 µg/m³. Thus, no differences could be discerned by the model between using the breathing level receptor height versus the ground level height.

Accordingly, the modeling results reported in the Final EIS accurately reflect the predicted concentrations of air pollutants during rail operations, based on best available data and modeling best practices. We very much appreciate EPA's participation in the EIS process for the proposed Uinta Basin Railway and look forward to collaborating on future projects in Region 8.

Best regards,
Josh Wayland

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