



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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Ref: 8ARD-PM

Mr. Michael Ogletree  
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Emailed to:  
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Re: EPA Comments on Draft Construction Permit 98TE0545 for the Cripple Creek & Victor Gold Mine

Dear Mr. Ogletree:

This letter provides EPA Region 8's comments to the Colorado Department of Public Health and Environment (CDPHE) on the subject permit action, which would increase the daily and annual throughput limits for cement and lime at the ROM silo (AIRS point 040) for the Cripple Creek & Victor Gold Mine (CC&V). The comment period runs from October 28 through December 11, 2022. The comment period reflects a two-week extension requested by the Region. We appreciate the additional time which was granted due to our request for some additional information. For clarification, the only information provided to us was information that was already included in the permit record.

We have reviewed the draft construction permit documents and note that CDPHE is using air quality modeling to meet CDPHE's requirement to demonstrate that the permit action does not cause violations of the National Ambient Air Quality Standards (NAAQS) for particulate matter with diameters generally 10 micrometers and smaller (PM<sub>10</sub>) and particulate matter with diameters generally 2.5 micrometers and smaller (PM<sub>2.5</sub>). This air quality modeling analysis reuses a model platform that was developed for CC&V in 2018 (the "2018 model platform"). According to the available modeling reports contained in the permit record and submitted to EPA, the 2018 model platform contained issues that could impact the model results and cause predicted pollutant concentrations to exceed the NAAQS. Several key issues could impact the final model results:

- a. **Ambient Air Boundary:** The submitted reports note that the model lacks an effective barrier to preclude public access, which means that the receptors in the model may not accurately represent ambient air or areas with public access. CDPHE has indicated that the current permits for the CC&V facility are specific about the ambient air boundary at the facility and barriers used to prohibit access. However, it is not clear to us whether the ambient air boundary required in the current CC&V permit is accurately represented in the model without more information. Without this connection between the permit conditions and the model configuration, it is possible that the air quality modeling analysis may be missing or not capturing harmful levels of predicted pollutant concentrations in areas that are accessible to the public.

- b. Emission Factors: The submitted reports note that the emission factors used to calculate the emissions for the PM<sub>2.5</sub> and PM<sub>10</sub> pollutants are not accurate, and that the correct emission factors would result in higher emissions. The current model results are around 92% to 98% of the NAAQS for these pollutants and associated averaging periods. This means that it is possible that the corrected emissions could result in predicted concentrations that exceed the standards.
- c. Background Concentrations: The submitted reports note that the background concentrations are based on old data and may not be representative of the current background concentrations. As noted in the above item, the PM<sub>2.5</sub> and PM<sub>10</sub> model results are around 92% to 98% of the NAAQS for these pollutants and associated averaging periods. If current concentrations are higher and deemed more representative than the concentrations used in the 2018 air quality modeling, then it is possible that using the accurate current background concentrations in modeling the facility's emissions could result in predicted concentrations that exceed the standards.

The 2018 model platform was also used to conduct a number of model simulations to represent various operational scenarios that were relevant for a previous permit action. The current air quality modeling analysis repeated those previous scenarios and only updated the proposed sources for the PM standards. However, the permit record does not provide sufficient information about the model scenarios and configurations to allow us to determine whether the current sources and associated emissions are represented properly in the air quality modeling analysis for this permit action.

The reuse of the 2018 model platform, which as noted above raises several concerns, and the limited additional information provided for this permit action have generated concerns with the representativeness of the results of the air quality modeling analysis. As a result, we are unable to determine whether CDPHE has sufficiently demonstrated that the permit action will not cause PM<sub>10</sub> and PM<sub>2.5</sub> NAAQS violations. We encourage CDPHE, at a minimum, to provide written documentation in the permit record that addresses the concerns described above. Further, if it is found that additional air quality modeling is needed to address these concerns and to demonstrate that the proposed CC&V project meets applicable ambient air quality standards, we recommend that, to provide a straightforward, representative demonstration, CDPHE only model the emission units and scenarios directly connected to the current permitting action.

If you have questions or wish to discuss this further, please contact me, or your staff may contact Donald Law, of my staff, at (303) 312-7015 or at law.donald@epa.gov.

Sincerely,

12/9/2022

X Monica Morales

Signed by: MONICA MORALES

Monica Morales  
Acting Director  
Air and Radiation Division