April 29, 2022

Re: Revised Comments on Draft EIR for Idaho-Maryland Mine, Nevada County, CA

Introduction

The Northern Sierra Air Quality Management District (NSAQMD) has been involved at various stages with the development of the environmental documentation for this proposed project. As a responsible agency under the California Environmental Quality Act, the NSAQMD neither supports nor opposes this project, and is submitting these comments in the interest of ensuring the adequacy of the DEIR. The NSAQMD recognizes that the commitment to use electric underground mobile equipment instead of diesel-powered equipment is a significant mitigation.

Asbestos Emissions

The Air Quality sections of the DEIR include a newly introduced concept of converting asbestos measurements to PCM (phase contrast microscopy) units.

During the DEIR comment period the NSAQMD contacted OEHHA with questions about the asbestos PCM conversion process. OEHHA staff referred the NSAQMD to the California Air Resources Board’s (CARB) Risk Analysis Section, which worked with CARB’s Monitoring and Laboratory Division in providing an assessment of the underlying science. CARB staff concluded that “it is not appropriate to determine risk from rock samples” (personal communication with CARB staff, 3/28/22) and noted that the PCM conversion factor was developed for air monitoring samples, not rocks. For reference, the origin of the PCM conversion factor is EPA’s Airborne Asbestos Health Assessment Update (EPA/600/8-84/003F, 1986). Since there is no approved method for calculating risk from rock samples, comparison with the NSAQMD’s AB2588 toxics significance threshold based on rock composition carries some uncertainty.

The DEIR is correct in observing that the Asbestos Airborne Toxic Control Measures (ATCMs) at CCR Title 17, Section 93105 and 93106 apply to the project. Underground mining is not covered in the ATCMs, but will be subject to permit conditions prescribed by the NSAQMD via the required Authority to Construct/Permit to Operate.

Note that the footnote on page 55 reads, “Samples containing naturally-occurring asbestos were from underground rock only…” whereas November 2021 TEM sampling did discover asbestos in one of the two surface samples (#Y962843) from the 55-acre Centennial site.
Also, there appears to be at least one mistake in the TEM lab reports. The sheet for sample #Y962990 lists a “Calculated Asbestos Concentration (Weight %)” for chrysotile asbestos as .075%; there is an apparent laboratory error in reporting the total as <0.001 %.

Criteria Pollutant Emissions

On page 304 of Appendix E.1, there are multiple tables that require explanation. The rationale for using a silt content of 1.6% for the crushed rock and a moisture content of 15% for the sand tailings should be discussed. The normal ranges noted in AP-42 section 13.2.4 are a silt content of 0.44% to 19% and a moisture content of 0.25% to 4.8%.

Additional assumptions on document page 304 require explanation, including a wind erosion area of 0.72 acres, 0.34 acres of access road and 1.00 acre either seeded or with covering underway. Elsewhere in the DEIR, it appears that more surface is to be disturbed than the area indicated in these assumptions. Likewise, the assumptions for bulldozing and compaction (2.43 hrs/day and 1.02 hrs/day respectively) appear less than indicated elsewhere in the DEIR.

The Logging and Chipping (described on page 4.3-56) is assumed to be for 24 total acres (Centennial and Brunswick sites combined). We see no mention of emissions associated with ongoing vegetation management.

The beginning of the Earthwork and Material Handling section (App. E-1, p. 24) reads, “The barren rock will be transported from the concrete silo using a series of chutes and conveyors to a fully enclosed truck loading building.” Each transfer point along the “series of chutes and conveyors” is an emission point which is not accounted for in the DEIR.

Table 2 of the Health Risk Assessment lists the Base Elevation for the generators and diesel storage tanks in meters (placing them above 9,000’), whereas it should be feet. The calculations require verification to ensure that the modeling inputs are in the correct units.

The footnote for table 8 on page 28 of E.1 says, “Concentrate truck trip distance of 145 miles is based on the distance between the project sites and the Port of Oakland.” An explanation of why the ore concentrate is going to the Port of Oakland is necessary. If it is being transported to a refinery elsewhere, the associated emissions should be included in the GHG analysis since GHG emissions are a global concern.

Unnumbered document page 184 of E.1 (for paved road fugitive emissions from vehicles) shows a table that has fractions of vehicles making fractions of trips, and then rounds the resulting VMT numbers before performing the final calculations. For instance, Freight Trucks have an average of 0.43 daily trips going 0.52 miles and lists their VMT as 0. The 0 miles travelled is then multiplied by the weight of the trucks, which yields 0 pounds. It also shows 1 concentrate truck trip per day, whereas in some places there are 10 concentrate trips/day and there are 5 concentrate truck trips listed on page 186 and 187. This is an example of how not only concentrate trucks but also other vehicles display different mileage, different trip numbers, etc. throughout the emissions calculations. These require standardization and accurate data conclusions.
The emissions estimates assume that all on-site roads will be paved. This requires inclusion as a condition or mitigation measure.

The spreading of 1,000 tons per day of engineered fill with a dozer require inclusion in the off-road equipment emissions (dozers are considered to be off-road equipment) data.

App. E-1, document page 380/1938 lists 3 diesel generators that are proposed to operate 8 hours per day, 7 days per week in perpetuity (operational). The emissions from these generators require inclusion in the various emission quantification tables. Similarly, Table 4 (off-road construction emissions) of App. E.1, p. 21 includes 9 portable diesel generators operating 6 hours/day, 6 days/week that require inclusion in the emissions estimate data columns.

Emissions from construction of the septic leach field and sewage line running up hill to the septic system require inclusion in the emissions analysis. Emissions from any backup diesel generator(s) required to pump sewage up the hill require inclusion in the emissions data.

The OFFROAD model does not include fugitive emissions. It only includes engine emissions. The Operational Off-road Equipment list (App. E-1, document page 380/1938) lists off-road equipment at the Brunswick site. PM emissions from those require addition to the TAC calculations, which specify zero emissions from off-road equipment.

The "Earthwork and Material Handling Fugitive Dust" section starting on page 300 includes limited construction activities that are anticipated (SF Creek Culvert Replacement, Pond Berm Repair, Service Shaft Collar and Building Pad). It assumes a serpentinite content in fill of 14.3%, with an asbestos content of 0.20%. A figure of 0.03% (which requires explanation) is derived from these numbers. There is a calculation of wind erosion that assumes a disturbed area of 4 acres. The resultant calculated fugitive dust emissions from wind erosion during construction is 0.41 tpy of PM10 and 0.02 tpy of PM2.5. The following unnumbered page (doc page 301) has an unlabeled table which indicates that only 40,150 tons of fill would be placed per year (versus the proposed 365,000 tpy). The content of the pages after that require clarification. For example, there is a sub-table called “Compaction” as part of the Fill Placement calculation series that notes a piece of equipment (“Cat563”) that works for 0.06 hours (216 seconds) per day. On that same page is a bulldozer that moves 411.1 tons per hour and works 0.27 hours (16 minutes and 12 seconds) per day.

The reason for selecting 25 meters as the plume height and width for all of the line volume sources in Table 2 starting on page 8 of Appendix B of Appendix E.1 require explanation.

The DEIR cites AP-42, Ch. 13.3 as a source for blasting emissions information. ANFO is listed in that source as emitting 17 lbs./ton of NOx. At 0.93 tpd of ANFO, that calculates to 2.89 tons per year of NOx emissions from ANFO detonation. Nitrogen oxides are principally NO2, which is recognized as a non-carcinogenic TAC. These TAC emissions are excluded from the DEIR. The "Underground Blasting and Crushing" section (p. 4.3-56) assumes no TAC emissions from blasting.
ASUR Plan

The NSAQMD will take the ASUR Plan into consideration while developing an Authority to Construct/Permit to Operate.

Sincerely,

Gretchen Bennitt, APCO
Northern Sierra Air Quality Management District