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BEFORE THE BOARD OF ENVIRONMENTAL QUALITY
STATE OF IDAHO

IN THE MATTER OF AIR QUALITY PERMIT TO CONSTRUCT P-2019.0047

NEZ PERCE TRIBE, IDAHO CONSERVATION LEAGUE, and SAVE THE SOUTH FORK SALMON,

Petitioners,

v.

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY,

Respondent,

and

PERPETUA RESOURCES IDAHO, INC.,

Intervenor-Respondent.

Case Docket No. 0101-22-01
OAH Case No. 23-245-01

DEPARTMENT OF ENVIRONMENTAL QUALITY'S PREHEARING STATEMENT

I. REMAINING ISSUES UPON REMAND

Petitioners initiated the instant contested case, challenging the Department of Environmental Quality's ("DEQ") issuance of an air quality permit to construct ("PTC") to Perpetua Resources, Inc. ("Perpetua") on July 22, 2022. REC 0001-0028. After the Hearing Officer found in DEQ and Perpetua's favor on summary judgment, Petitioners appealed to the Board of Environmental Quality (the "Board"). REC 3280-3328, REC 3372-3425, REC 3426-3441. Petitioners appealed five of the issues decided by the Hearing Officer. REC 3426-3441. On May 9, 2024, the Board issued its "Final Order," affirming the Hearing Officer's decision on four of the five issues. REC 3695-3720. Regarding the fifth issue, the Board found "there was insufficient evidence to support DEQ's analysis of the ambient air concentrations." REC 3706. Thus, the Board remanded the matter to the Hearing Officer "for the development of further evidence regarding the ambient air concentrations of arsenic that will be produced by the [Stibnite Gold Project] and whether those levels comply with the Air Rules." REC 3717.

Regarding this issue, the Board specifically found as follows:

(1) "DEQ did not act reasonably and in accordance with law when it applied the 16/70 calculation to the ambient arsenic air concentration analysis;"

(2) "DEQ did not act reasonably in using a five-year rolling average for T-RACT that was not properly supported by permit conditions;" and

(3) "there was insufficient evidence to support the T-RACT analysis limiting the non-West End Pit production limit."

REC 3712-3715. These three sub-issues, referred to as the "Remaining Issues," are now before the Hearing Officer upon remand.

II. STANDARD OF REVIEW

The Board "must determine whether DEQ 'has acted reasonably and in accordance with law' when issuing the Permit…" REC 3697. As to the Remaining Issues, the Board found DEQ did not act reasonably and in accordance with law because it lacked sufficient evidence to support DEQ's analysis. REC 3706, 3714-3715. Upon remand, Petitioners still bear the burden of proof as the party challenging DEQ's issuance of the PTC. IDAPA 62.01.01.477. Thus, the Hearing Officer must now determine whether there is sufficient evidence establishing that DEQ was reasonable and acted in accordance with the law when it issued the PTC, and specifically in DEQ's analysis of the arsenic ambient air concentrations. The Hearing Officer, and the Board, are only considering whether DEQ was reasonable and acted in accordance with the law; the question is not whether a person may disagree with DEQ's reasonable and lawful approach.

Throughout this contested case, and including in the current remand, it has been clear that expert opinions and testimony are necessary. *See* REC 3375 (in the Amended Memorandum Decision on Motions for Summary Judgment and Preliminary Order, the Hearing Officer discussed the technical nature of the air permit matters and determined that DEQ staff were expert witnesses); REC 3716 (the Board seeks expert testimony from a toxicologist or other qualified expert). Because the PTC being challenged is technical and complex, expert testimony has been essential. *See* REC 3375. And DEQ's "experience, technical competence, and specialized knowledge may be utilized in the evaluation of the evidence." I.C. § 67-5251(5).

III. REGULATORY SCHEME

The Remaining Issues concern Perpetua's emissions of arsenic, a toxic air pollutant ("TAP"). The Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01 ("the Air Rules") contain several relevant provisions related to the control of TAPs. First, Section 161 provides an

overarching requirement wherein DEQ must determine that TAP emissions will not "injure or unreasonably affect human or animal life or vegetation." IDAPA 58.01.01.161. In issuing a permit, DEQ must find that a new or modified stationary source will comply with Section 161. IDAPA 58.01.01.203.03. Compliance with Section 161, with regards to the TAPs listed in Sections 585 (non-carcinogenic TAPs) and 586 (carcinogenic TAPs), is determined using the methods provided in Section 210 of the Air Rules. IDAPA 58.01.01.203.03.

Section 210 begins: "In accordance with Subsection 203.03, the applicant must demonstrate preconstruction compliance with Section 161 to the satisfaction of the Department." IDAPA 58.01.01.210. Section 210 goes on at length to provide the methods by which DEQ and the permit applicant analyze the TAP emissions from a new source or modification of an existing source and demonstrate compliance. *Id.* Compliance with Section 210 can first be established by demonstrating that the emissions from TAPs will not exceed the acceptable ambient concentrations ("AACCs") set forth in Sections 585 and 586. IDAPA 58.01.01.210.05. The AACCs are expressed as annual averages and use the Environmental Protection Agency's ("EPA") unit risk factors ("URF") for the listed TAPs. IDAPA 58.01.01.106.19. A URF is a particular TAPs inhalation unit risk ("IUR"). "All IURs (including for arsenic) are based on an incremental lifetime risk of 1 in one million from exposure to 1 $\mu g/m^3$ of a substance continuously (24 hours day and 365 days/ year) over a lifetime of exposure (assumed to be 70 years)." REC 4282.

Relevant here, Section 210.12 also allows a permit applicant to "use [Toxic Air Pollutant-Reasonably Available Control Technology ("T-RACT")] to demonstrate preconstruction compliance for toxic air pollutants listed in Section 586." IDAPA 58.01.01.210.12. T-RACT "is an emission standard based on the lowest emission of toxic air pollutants that a particular source

is capable of meeting by the application of control technology that is reasonably available, as determined by the Department…" IDAPA 58.01.01.210. When an applicant uses T-RACT, the allowable cancer risk shifts from 1-in-1,000,000 to 1-in-100,000.

IV. EXPERT TESTIMONY ON THE REMAINING ISSUES

The expert testimony of Kevin Schilling, Dr. Norka Paden, Kevin Lewis, and Theresa Lopez demonstrates that DEQ acted reasonably and in accordance with the law when it issued the PTC, including in its analysis of the ambient air concentrations. Although DEQ maintains that the record was already sufficient to support DEQ's analysis, the expert testimony provided by DEQ and Perpetua contains the additional evidence sought by the Board. None of the testimony provided by the Petitioners in their submitted declarations refute the expert testimony provided by DEQ and Perpetua or prove that DEQ failed to act reasonably or in accordance with the law. Thus, the testimony establishes that Petitioners again fail to meet their burden.

A. The Expert Declarations Demonstrate that DEQ Acted Reasonably and In Accordance With Law In Using the Project Specific 16/70 Adjustment.

First, the Board found "DEQ did not provide sufficient evidence in the form of an expert opinion from a toxicologist or other qualified expert regarding the cancer risk associated with the 16/70 adjustment." REC 3716. The Board also determined that it could "not find sufficient evidence in the record to support the proposition that a higher exposure to arsenic for a shorter period of time is equally or more protective than a lower annual lifetime average exposure." REC 3717. The testimony of Mr. Schilling, Mr. Lewis, Dr. Paden, and Ms. Lopez demonstrate that not only was this adjustment supported by the Air Rules, but it did not create an unacceptable increased cancer risk.

The cornerstone of the carcinogenic TAP rules is limiting *project caused* cancer risk to less than 1-in-1,000,000, or 1-in-100,000 when T-RACT is used. As DEQ and Perpetua's experts

explained, where project-caused cancer risk is the metric, it is appropriate to account for the exposure duration, as DEQ did here. REC 3929, 4142, 4283. As Ms. Lopez stated: "Comparing unadjusted emissions to the AACC would result in an over-estimation of cancer risk because the dose will not continue for the 70-year lifetime exposure assumed in the development of the AACC." REC 4283.Thus, an over-estimation would be inappropriate, as it misrepresents the nature of the project and its effects.

The Air Rules, specifically the AACCs, rely upon and incorporate EPA's science and methodologies. *See* REC 3876, REC 4284. Dr. Paden explained: "Under EPA's methodology for human health risk assessments, cancer risk calculations are done using a lifetime exposure set at 70 years." REC 3877. But, according to Mr. Schilling, when a project has "an enforceable operational life of less than 70 years, an adjustment for reduced exposure duration is appropriate." REC 3929. The testimony of Dr. Paden, Mr. Lewis, and Ms. Lopez all concur. Ms. Lopez specifically testified that "[a]djusting exposure duration is necessary and proper from a scientific and toxicological standpoint to apply the AACCs accurately." REC 4286. Dr. Paden also explained that "DEQ used EPA's methodology for adjusting exposure duration given the known exposure duration (lifetime of the mine)." REC 3878. Thus, the testimony demonstrates that this adjustment is consistent with the Air Rules, specifically the AACCs.

Further, Dr. Paden concluded:

> DEQ's analysis followed EPA's guidelines and that results from a shorter duration exposure (i.e., 16 years) is within EPA's target risk range of 1 in 1,000,000 to 1 in 10,000 (i.e., one in one million to one in ten thousand) and is not likely to increase cancer risk by the arsenic air emissions calculated by the analyses of the air permit application (maximum arsenic-modeled concentrations).

REC 3881. Simply put, DEQ did not underestimate the cancer risk caused by the project. Ms. Lopez agreed, concluding "the incremental increase in cancer risk caused by arsenic emissions

from the [Stibnite Gold Project] is 1 in 240,000, which is less than the acceptable risk of 1 in 100,000." REC 4280-4281.

The expert testimony demonstrates that the project specific adjustment was reasonable – calculating cancer risk naturally requires one to consider the exposure duration. REC 3877, REC 4286. The adjustment has also been shown to be lawful – the AACCs are based on EPA's methodologies and adjusting the exposure length is consistent with EPA methodology. REC 3876-3877, REC 4286. Finally, the testimony of Dr. Paden and Ms. Lopez establish that "the highest air concentration of arsenic from the project is below the acceptable lifetime risk established by the T-RACT AACC." REC 4285.

B. The Expert Declarations Demonstrate That DEQ Acted Reasonably and In Accordance With Law In Using a Five-Year Rolling Average.

Next, the Board found "there was insufficient evidence to support use of the five-year rolling average in the ambient arsenic air concentration analysis." REC 3713. Because the AACCs are listed as annual average in the Air Rules, the Board reasoned that DEQ could not use a "5-year rolling average when performing its arsenic ambient air concentration calculations." REC 3712. The Board is referring to the fact that DEQ limited mine production to 135,000 tons per day of ore, based on a five-year rolling average. REC 3712.

The testimony of Mr. Schilling and Mr. Lewis establish that while the AACCs are expressed as annual averages, the ultimate requirement of the Air Rules, including the AACCs, is that the project not exceed the *lifetime* risk. REC 3919, REC 4134-4135. Stated another way, the AACCs describe the annual average concentration that will result in a 1-in-1,000,000, or 1-in-100,000 for T-RACT, excess cancer risk assuming a lifetime exposure of 70 years; however, the averaging period of the AACCs themselves are not the compliance period. REC 4134. The five-year rolling average compliance period is in fact sufficient to assure that

operations, arsenic emissions, long-term impacts, and resulting airborne arsenic *lifetime cancer risk* associated with the project is less than the T-RACT allowable 1-in-100,000 cancer risk. REC 4134-4135.

According to Dr. Paden's testimony, the AACCs are calculated using EPA's standard methodology for estimating cancer risk in health assessments. REC 3876. Relying on EPA's methodology, Dr. Paden explains that AACCs for carcinogens are based on the cancer unit risk values from EPA and correspond to a 1-in-1,000,000 cancer risk (or 1-in-100,000 for T-RACT). REC 3876. And, in general, hourly, daily, and annual variabilities in exposure, even when such values exceed the value of the AACC, do not necessarily mean non-compliance with the 1-in-1,000,000 or 1-in-100,000 cancer risk increment. REC 3926.

C. The Expert Declarations Demonstrate that DEQ Acted Reasonably and In Accordance With Law as there was Sufficient Evidence to Support the T-RACT Analysis Limiting the Non-West End Pit Production Limit.

Finally, the Board concluded "there was insufficient evidence in the record to demonstrate exactly how or whether the non-West End Pit production was limited and, if it was, the Board of Environmental Quality could not find any PTC conditions able to enforce that reduction." REC 3714. According to the testimony of Mr. Schilling and Mr. Lewis, the PTC appropriately and effectively limited both West End Pit and non-West End Pit production. REC 3927, REC 4139. Further PTC condition 3.6 "limits total hauling and excavation from the mine to 788.4 million tons." REC 3927; *see also* REC 4139. Condition 3.6 then "limits hauling and excavation from the West End Pit to 394.2 million tons, which is equal to 50% of total allowable production." REC 3927. Thus, a limit to the non-West End Pit was not necessary based on the following relationship:

$$\text{Production}_{\text{Non-WEP}} = \text{Production}_{\text{total}} - \text{Production}_{\text{WEP}}$$

REC 3928. As explained by Mr. Schilling and Mr. Lewis, when production is assumed from West End Pit sources, compliance with the T-RACT AACC may not be established, which is why production was limited to 50%. REC 3928, REC 4140. But if all 788.4 million tons came from non-West End Pit deposits, ambient arsenic concentrations would be well below the T-RACT adjusted AACC. REC 3927-3928, REC 4140. Therefore, a limit on non-West End Pit sources is not required and would not make sense in the context of the existing limit on total production and West End Pit production.

V. CONCLUSION

The testimony described above demonstrates that DEQ acted reasonably and lawfully when it issued the PTC, and specifically in its analysis of arsenic emissions. As to each of the Remaining Issues, Petitioners have failed to meet their burden, and the Hearing Officer should find in DEQ's and Perpetua's favor.

DATED this 11th day of October, 2024.

STATE OF IDAHO
OFFICE OF THE ATTORNEY GENERAL

/s/ Hannah M.C. Young

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CERTIFICATE OF SERVICE

I hereby certify that on October 11, 2024, a true and correct copy of the foregoing ***DEQ'S PREHEARING STATEMENT*** was served on the following:

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