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Secretary for
Environmental Protection



Department of Toxic Substances Control

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Gavin Newsom
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SENT VIA ELECTRONIC MAIL

December 04, 2024

Molly Cobbs
NEPA Document Manager
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RE: ENVIRONMENTAL ASSESSMENT FOR THE PROJECT ATLiS DATED
NOVEMBER 07, 2024, STATE CLEARINGHOUSE NUMBER [2024110237](#)

Dear Molly Cobbs,

The Department of Toxic Substances Control (DTSC) reviewed the Environmental Assessment (EA) for Project ATLiS. EnergySource Minerals, LLC (ESM or Applicant), is proposing to build a commercial lithium (Li) production plant within the known geothermal resource area at the Salton Sea in Imperial County, California (Project). The plant will be capable of producing lithium carbonate (Li_2CO_3), lithium hydroxide (LiOH), and other commercially viable substances. ESM has applied for a federal loan pursuant to the U.S. Department of Energy (DOE) Advanced Technology Vehicle Manufacturing Program (ATVM Program), which was created by the Energy Independence and Security Act of 2007 to provide incentives, including funds for engineering costs, for projects that retrofit, expand, or create manufacturing facilities in the United States for advanced-technology vehicles or qualifying components. DTSC recommends and requests consideration of the following comments from our Site Mitigation and Restoration Program (SMRP) - Engineering and Special Projects Office (ESPO) and Hazardous Waste Management Program (HWMP) - Permitting Division.

SMRP - Engineering Services/ESPO Comments and Questions:

1. The estimated 190,000 metric tons per year of iron (Fe)-silica (SiO₂) material, as filter cakes, to Welton, Arizona, may pose a potential transportation risk. Mitigation Measures such as a spill response protocol for transportation incidents should be considered.
2. Regular inspection and maintenance schedules for trucks transporting hazardous materials should be included in the plan, to minimize potential adverse events.
3. The filter cakes containing Fe-SiO₂ are non-hazardous under the Resource Conservation and Recovery Act (RCRA) but are classified as hazardous under California law. This classification may require additional tracking and disposal regulatory compliance measures.
4. The Emergency Response Plans include Spill Prevention, Control, and Countermeasure (SPCC), but may not consider catastrophic scenarios, such as large-scale pipeline failures or chemical tank ruptures. Worst case scenarios should be included to evaluate the system's integrity, and emergency response coordination.
5. Air monitoring points during construction, and post construction should be considered, including a station at or near Grace Smith Elementary School and other vulnerable communities.
6. With the proposed project's location, with respect to the Salton Sea, additional environmental protection considerations should be evaluated. This can include but is not limited to groundwater monitoring/sampling, soil vapor sampling, and soil sampling.
7. Imperial County has an average temperature of 100°F during summer; with the higher summer temperatures, there is a potential for increased water vapor that traps heat in the atmosphere in addition to heat trapped by greenhouse gases (GHG). These heat trapping sources should be considered when evaluating GHG effects during and after construction. Refer to EPA's

Climate Transition Planning and GHG Reduction Programs and Strategies for more information on potential ways of decreasing GHG emissions.

8. Permitting hazardous materials and storage handling onsite shall be conducted in accordance with hazardous waste control laws and regulations administered by DTSC.
9. Ensure future Applicant materials reflect whether there will be development and/or use of solar energy in support of the Project and detailed descriptions of their location and use.
10. Ensure future Applicant materials reflect whether there has been any soil sampling and/or testing to identify potential contaminants of concern due to previous agricultural use of the Project site.

HWMP - Permitting Division Comments and Questions:

1. **Transportation:** In section 2.2.5 Shipping and Receiving (Page 15) the document describes that the number of trucks is underestimated and potentially double counted. It appears that a truck bringing supplies to the facility is assumed to be departing the facility carrying hazardous waste (HW), or mineral products therefore, making one trip to and from the facility. However, it is not clear that the trucks delivering products to the facility for their processes will also be certified HW handlers for the purposes of transporting HW offsite. It seems more realistic that there will be trucks making a trip to the facility with product, and away from the facility empty or enroute to their next delivery, while other trucks will be traveling to the facility empty to pick up HW and deliver it to its final destination.

Finally, the truck traffic is at a minimum, underestimated. The estimation given in section 3.10, Waste Management, regarding the annual quantity of filter cake describes 172,365 tons of HW generated as filter cake. That filter cake represents 471 tons per day if operated 365 days per year. Pursuant to California Vehicle Code section 35551, the maximum allowed vehicle weight on any roadway in California is 40 tons. At the described HW generation, this would result in at a minimum, 12 trucks per day (per the next number in this document;

the amount of HW could be more, which would amount to at least 1 more truck). This 40-ton limit is likely to be further limited by other transportation requirements or practical applications as the allowable weights reduce with the sizing of the vehicle.

2. **Hazardous Waste Disposal:** On page 37 section 3.10 Waste Management, the document describes that the waste would be tested and if it fails soluble threshold limit concentrations criteria, it would be sent to Arizona. The section does not address what would happen if the waste fail criteria became a RCRA HW.

The following paragraph discusses the remaining local landfill capacity for solid waste disposal. The discussion of the Arizona landfill describes that the design capacity is 2.5 million tons, however it does not discuss the remaining capacity. Considering the vast amount of waste discussed (potentially 172,000 Tons of HW filter cake annually) it seems appropriate to discuss the remaining capacity of the landfills in Arizona, and any agreements the facility has with those landfills in order to determine if the backup plan would significantly impact California HW landfills.

If the Arizona landfill was brand new, and only accepted waste from this project, it would reach capacity after 12 years. Presuming that the Arizona landfill is not new and will be accepting waste from sources other than the proposed project, the Applicant's plan to send waste to that location could cease to be practical within a couple of years. DTSC recommends a discussion regarding whether this proposed project exceeds the capacity of the out-of-state landfill, and/or if it is rejected, whether the Applicant will have to dispose of the waste in California.

The quantity from this one site represents roughly 10% of the total HW generated in the State of California on an annual basis. The last sentence of the section states that "impacts associated with waste generation would be below significant". Because no secondary disposal plan is described, and based on the above assumptions, it seems that the impact from the waste generation could be significant, or even concerning, within several years.

The following section 3.11 Cumulative Impacts describes several other projects owned by BHE Renewables LLC and Controlled Thermal Resources (US) Inc. The projects mentioned are extracting geothermal resources from the same known geothermal resource area and are expected to also be extracting lithium from the brine and will only exacerbate the timeline at which the Arizona landfill(s) become impractical as a solution.

3. **Environmental Justice (EJ):** Section 3.11.3 suggests that the cumulative impacts of this project and others in the area would not disproportionately affect EJ communities in the project area because it will provide jobs to the local communities. From an EJ perspective those communities will see increased pollution burden from the increase in vehicle traffic as a result of those individuals commuting to those jobs resulting in exposure to additional airborne pollutants; and from delivery, off haul, and disposal of solid and HW which would result in exposure to airborne pollutants, and the risk of exposure to HW.
4. The document describes “proprietary” processes for some of the mineral extraction and purification stages. It is unclear whether these processes will use hazardous materials or have the potential to generate HW in addition to the filter cake that is described.
5. **Descaling:** On page 37, it is described that the plant must be shut down every 3 years for descaling and that the waste generated would likely be hazardous and at potentially higher concentrations than the routine process waste. It is unclear what the quantities waste this will generate and whether it would be RCRA HW. It is also unclear whether there will be waste caused by corrosion over time.
6. In section 3.10 Waste Management Table 16, the footnote states: “the Fe-SiO₂ filter cake is not a hazardous waste under the RCRA but is considered a hazardous material under California state law.” The document doesn’t state what makes the waste hazardous. Please clarify what makes it a hazardous material.

DTSC appreciates the opportunity to comment on the EA for Project ATLiS. Thank you for your assistance in protecting California’s people and environment from the harmful effects of toxic substances. If you have any questions or would like

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clarification on DTSC's comments, please respond to this letter or via [email](#) for additional guidance.

Sincerely,

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