

# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

## Division of Mineral Resources, Region 7

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TO: Jon Stercho  
DEP –

FROM: Tom Rigley  
DMN –

RE: Cargill, Inc. – Cayuga Salt Mine  
Technical Comments for Permit Modification Application  
Mine ID #: 70052  
DEC ID #: 7-9999-00075/00001

DATE: October 31, 2023

Division of Minerals (DMN) has completed the technical review of the modification application proposing storage of water inflow in the S3 Mains. This memo contains comments addressed to the applicant based on review of the application. If there are any questions, contact me at your convenience.

### Technical Comments

Please respond to and/or clarify the following:

- *2.3.2 – Water Handling and Storage:* The recent annual report indicated that water labeled as “Other Inflows” is stored in various abandoned areas on the 6-Level of the mine. Please clarify that the proposed water storage area will be confined to only the 6-Level region (S3 Main and associated panels) that is depicted on Figure 2 in the application.
- *2.4 - Assessment and Mitigation of Potential Environmental Impacts:* The modification references studies that were contracted by Cargill, Inc. (Cargill) to evaluate impacts to global stability of the mine. The department is requesting that these reports and all supporting information be submitted to complete the review of this proposed action.
- *Appendix C – Cayuga Mine S3 Monitoring Plan:* The last paragraph of Section 1.2 - Affected Areas states, “Further work will include efforts to reduce inflow rates and exploration of other reserves within the within the Syracuse Salt Formation.” Please expound on what these efforts may include and note that any exploration of reserves outside the permitted life of mine will need to be approved by the department.
- *Appendix C - Cayuga Mine S3 Monitoring Plan:*  
The final paragraph of section 2.2 - Convergence of the Cayuga Mine S3 Monitoring Plan states Convergence data collection will continue as long as safe access to all stations exists. Utilizing the same method used to estimate the life of the S3 sump (15 years) and the estimated time for the water reach the roof in the southern limit of the mine (10 years), please estimate the approximate dates that convergence monitoring

stations will be inundated, preventing safe access and necessitating the abandonment of the stations. Please show the estimated time of inundation and abandonment for each of the convergence stations on Figure 2 of the S3 Monitoring Plan (presenting a table with the monitoring station numbers and estimated inundation dates may be the most efficient method). Please address the progressive loss of monitoring stations with respect to the need for continued monitoring of global stability in the modification application narrative.

- *General:* It's noted in documents from the third-party consultant JT Boyd Company that a system will be constructed to saturate the water to be stored in the S3 Main approximately 24%-25% salt. There does not appear to be any mention of this system in the application material.

File: 70052