

Resolution Urging Governor Hochul and the DEC to Protect Cayuga Lake Water Quality by Requiring of Cargill Salt Mine a Full Environmental Review, a Closure Plan, and a Surety Bond to Ensure Safe Closure

November 8, 2023

Support Memo

Conventional wisdom suggests that unless I capture and retain your attention in the next several paragraphs, you will not fully read through my submission. As many of you are aware, I'm old school and believe that facts still matter. Hopefully the following narrative will assist you in achieving a more informed decision.

Following the 1994 collapse of the Retsof Salt Mine in Livingston County, residents in Tompkins County, the site of the other salt mine in NYS, urged their Assembly representative to investigate the causes for the collapse. Assemblymember Marty Luster lobbied for the NYS Assembly to engage in a systematic inquiry into the legal, factual and environmental issues that required a full and complete public exploration to better understand how to reduce the potential for such an event at the Cayuga Salt Mine. (Assembly Legislative Public Hearing on Underground Mining in NYS, June 14, 1995)

Luster questioned the Panel of representatives for the owners of Retsof, Akzo-Nobel Salt. "... all of the studies that you have submitted to us and to other agencies of the State and all of your testimony here today tells us that all of your ongoing monitoring indicated that there was no problem. All of your subsequent monitoring tells us there is no problem at this time. And you have additionally told us that you are unable to share with us ... that you are unable to share with us causality information because of ongoing litigation." "How do we know that this is not likely to happen again, since the same data was available to you prior to this collapse, and you were assured by that data? We can't rely on the studies that we have made because we know that in your particular case studies were made and they were not reliable."

Assemblyman Luster's comment on the testimony of Greg Wold, Operations Manager for Cargill. "Let me see if I can summarize this accurately. You have asserted that the Department has the statutory authority to regulate

underground mining activities; I think you have said that pretty clearly to Mr. Brodsky now and earlier.” Later Luster questioned Gregory Sovas, DEC Director of Mineral Resources “And you have no indication from Akzo that they are, in any way, going to contest your authority on the ground that there are no regulations in place or anything of that sort? Mr. Sovas: No.” (A new mine owned by American Rock Salt (involving some participants in the Akzo mine) opened nearby in 2001 and did complete an Environmental Impact Statement). Luster: “With or without the Legislature taking action, if there is a determination made by the administration to go forward with more comprehensive and uniform underground mine regulations, you could do that without us? MR. Sovas: That's correct, if we were not challenged. That's correct. We have authority under the State Environmental Quality Review Act.”

The DEC received an application from Cargill for renewal of its permit on September 17,1997, which application proposed to include an additional 5,056 underground acres within the Cayuga Mine. On April 23,1998, the DEC informed the Applicant that the Application for renewal was timely and sufficient for purposes of the State Administrative Procedure Act §401(2); that the renewal application required correction and clarification; that the proposed inclusion of an additional 5,056 underground acres requires a modification of the existing permit; and that additional information would be required in connection with the Application;

Cargill in response contended that “the Application does not involve a modification of its MLRL permit; that the Department lacks statutory or regulatory authority to regulate the Applicant's underground mining operations and to require the submission of the information requested by the April 23, 1998 letter; that the Application is a Type II action, not subject to review under the State Environmental Quality Review Act ("SEQRA"); and that the Application is and has been complete pursuant to ECL Article 70 since at least October 2, 1997, and the Applicant is entitled to approval of the Application without further submissions or Departmental review.”

The DEC disputed the aforementioned contentions and contended that “the Application does involve a modification of the MLRL permit; that the Department has statutory and regulatory authority to regulate the Applicant's underground

mining operations and to require the submission of the information requested by the April 23, 1998 letter pursuant to the provisions under SEQRA and the MLRL; and that the Applicant is not entitled to approval of the Application without further submissions and Department review;”

While recognizing the disagreement reserving each party’s respective rights, DEC staff and Cargill agreed to a stipulation that would require Cargill to provide additional information. The DEC and Cargill entered a Stipulation Agreement on January 14, 2000. “Within 120 days following the execution of this Stipulation, the Applicant would submit to the Department such further information as the Applicant and the Department shall agree upon, in an effort to comply with the requests contained in the Department's April 23, 1998 letter.”

The DEC in effect exempted Cargill from compliance with the SEQR regulations.

Compliance with SEQR would have required a public environmental review process with the preparation of a Scoping Plan for an Environmental Impact Statement (EIS) and then a public review of the draft EIS.

Scoping is a process that develops a written document (scope) that outlines the topics and analyses of potential environmental impacts of an action that would be addressed in a draft EIS. Given that the Legislative Hearing had failed to identify the cause of the Retsof roof collapse only several years earlier, there were several important concerns requiring further investigation prior to the renewal of Cargill’s permit.

An EIS is required when potentially significant adverse impacts of the applicants proposed project have been identified. An analysis of alternative project configurations or designs will enable the lead agency to determine if there are reasonable, feasible alternatives that would allow some or all the adverse impacts to be avoided while generally satisfying the sponsor’s goals. Requiring that reasonable alternatives be discussed allows a reviewer to independently determine if the proposed action is, in fact, the best alternative for that project when all environmental factors have been considered.

The goal of analyzing alternatives in an EIS is to investigate means to avoid or reduce one or more identified potentially adverse environmental impacts. Sec. 617 further requires that the alternatives discussion include a range of reasonable alternatives that are feasible considering the objectives and capabilities of the

project sponsor. The mine had been previously operated wholly under land and the company continued to own substantial mineral rights under land in Lansing. Under most circumstances, mining under land would present a lower environmental risk.

Despite an EIS being fully warranted by the scope of the environmental risk, the DEC chose to not require Cargill to prepare such a document. Instead, Cargill submitted additional data in the form of a 2 volume Expanded Environmental Assessment (EEA). The stipulation contains a paragraph 5D that Cargill asserts requires the DEC to maintain the confidentiality of the information provided by Cargill “to the full extent of the law.”

On August 14, 2002, the DEC issued a Notice of Complete Application. A 30-day public comment period followed. Cargill notified the DEC that it considered Vol. II of the EEA confidential; qualified for trade secret protection. A FOIL was filed with the DEC for data in Vol. II to enable the public to submit a meaningful comment. DEC denied the FOIL and an appeal was filed. Prior to the Appeal being heard, the DEC issued the permit on January 6.

Among the types of data sought in the FOIL were seismic data, geological data specific to the Cayuga Mine, specific dimensions of the yield pillar design, and the protocol for stability analysis. Thus, the question for consideration in the appeal was whether Cargill had carried the burden of establishing the “likelihood of substantial competitive injury if the subject information is disclosed.” The ALJ found that that “Cargill failed to carry that burden.”

“Cargill fails to establish that the subject information is of any significant value to the competitors. Cargill concedes that the seismic and geologic information is specific to the Cayuga Mine. “The fact that much of the subject information will be or has been made public undermines not only Cargill’s claim that release under FOIL will result in competitive injury, but that the information is confidential and not otherwise generally made public. Finally, strong public policy considerations support release of the information withheld in this case. As just noted, the redacted information was central to the Department’s core concerns and review of the mining permit of the mining permit application.”

“The environmental and public safety risks associated with mining are significant as evidenced by Akzo’s Retsof mine collapse and closure. Given the apparently

limited value of the withheld information in this case for competitors, the trade secret provision of FOIL and the Departments relations should not be read to shield the public, information relating to the environmental soundness of property which belongs to the people of this state” and that “ultimately has a direct bearing on public health and safety.” “Cargill’s request that the withheld information be excepted from disclosure under FOIL should be denied.”

In July 2005, Asst. DEC Commissioner Alexander over ruled the ALJ’s Recommended Decision in part and upheld it part; information on specific dimensions of yield pillar mine design, miscellaneous operational expense, and geology specific to the mine shall be released, while information relating to certain seismic information and the protocol for stability analysis shall be withheld.

Since a conclusive cause for the Retsof Mine roof collapse was not identified by the investigation conducted during the Assembly Legislative Hearing, an independent third-party scientific review of the Cayuga Salt Mine’s operations has been needed for the past 30 years. Experts associated with the Retsof mine said afterward that "The loss of the Retsof salt mine to flooding was a total surprise" and that the mine was "lost to an inundation of fresh water that was believed by the mine operators to be impossible." (Van Sambeek, Gowan, and Payment, 2000, pp. 412 and 415.) The fact that the experts were confronted with such a surprise adds to the logic that any mine under a lake needs a rigorous and transparent review, conducted as an EIS, to guard against an equally surprising collapse and flooding at the Cayuga Salt Mine.

Van Sambeek et al. concluded that the initial cause of the Retsof mine flooding was a naturally occurring brine/gas pool about 160 feet directly above the mine, the existence of which "was previously unknown." Other contributing factors included the deep bedrock valley above the mine and consequent thinning of the bedrock above the mine (also true above the Cayuga salt mine), as well as the ongoing distortion and enlargement of existing bedrock fractures due to subsidence (Vaughan, Young, and Michalski, 2017.) Enlargement of fracture pathways, allowing increased flow of fluids such as groundwater and brine, is a predictable result of the bedrock shifting above any subsurface mine. Here

again, these are factors for which the careful review with an EIS process is needed.

During the past decade Cayuga Lake Environmental Action Now (CLEAN) has commissioned and funded a series of scientific papers. Some of the most qualified experts in their fields were selected. John Warren is an evaporite geologist with a Ph.D. in Geology from Flinders University School of Earth Sciences. Evaporite geology, is his area of expertise, deals with deposits of salt and the many related practices and technologies involved in salt mining, He is the author of four books on evaporite and carbonate geosystems. His fourth book, *Evaporites: a Geological Compendium* was published by Springer in late 2016. This is an updated and expanded version of the previous book and is now an all-color edition that is more than 1800 pages. He was supported in his work on Cayuga Lake by Angus Ferguson an expert in Geophysics and Seismic Interpretation.

Ferguson, A., & Warren, J. K. (2017). Salt mining and possible future problems in the Cayuga Lake region: Integration of public-domain seismic with known salt geology (pp. 1-28). Salt Works Consultants

Ferguson, A., and J. Warren, 2017, Update on the seismic evaluation of the plans for Shaft #4 in the Cayuga Salt Mine, New York State April 11, 2017

Other CLEAN consultants were Andrew Michalski, a hydrogeologist who testified at Assembly Legislative Hearing, Richard Young, Professor of Geological Services at SUNY Geneseo (Retsof Salt Mine Collapse and Aquifer Dewatering, Genesee Valley, Livingston County, NY 1998), and Ray Vaughan, Professional Geologist from Buffalo and a former Environmental Scientist in the NYS Attorney General's Office.

The request for an Environmental Impact Statement has been pursued actively for the past 25 years by all our Assembly Representatives, Luster, Lifton, and Kelles. Local municipalities with legal jurisdiction overlapping the Lake have passed Resolutions supporting the demand for an Environmental Impact Statement and joined our civil litigation against Cargill and the NYSDEC as Petitioners (Towns of Ithaca and Ulysses, City of Ithaca, and the Village of Union Springs). This effort has been recently joined by our State Senator Lea Webb as well as Senator Rachel May whose jurisdiction includes the northern part of Cayuga Lake.

Our community has expended tens of thousands of dollars for commissioned scientific studies and the payment of legal fees supporting the litigation to protect our most valuable natural resource, Cayuga Lake. Our efforts on behalf of the public interest have been opposed by a very wealthy and politically influential corporation. With hundreds of square miles of available salt resources few of which are underwater, there is no reason to subject ourselves to the added risk of Cayuga Lake salt contamination. There is no inherent conflict between protecting public health and the environment and preserving a vibrant local economy. Future generations are likely to be burdened by many sources of contamination requiring expensive remediation that negatively impact local government resources. In this instance where there are viable alternatives, it is not reasonable to add to that future burden. Thank you for your consideration of my comment.

Sincerely,

Brian Eden