



Long Mott Energy, LLC
221 H. H. Dow Way
Midland, MI 48674

20 November 2025

2025-PLM-NRC-013

Docket No. 50-614

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**Subject: Supplement #2 to the Preliminary Safety Analysis Report for the Long Mott
Generating Station Construction Permit Application**

References:

- 1) Long Mott Energy, LLC, 2025, "Long Mott Generating Station Construction Permit Application," 2025-PLM-NRC-003, March 31, 2025 (ML25090A057)
- 2) U.S. Nuclear Regulatory Commission, 2025, "Acceptance for Docketing of the Long Mott Generating Station Construction Permit Application," May 12, 2025 (ML25115A247)

Long Mott Energy, LLC (LME), hereby submits the enclosed Supplement #2 to the Preliminary Safety Analysis Report (PSAR) for the Long Mott Generating Station (LMGS) Construction Permit Application. As described in Attachment 4, "Planned Submittals of Supporting Site-Specific Information for LMGS Preliminary Safety Analysis Report Chapter 2," of the cover letter to Reference 1, LME previously identified its plans to submit additional site-specific information to the Nuclear Regulatory Commission (NRC) to support the descriptions of LMGS hydrological characteristics and associated data collection, testing, analysis, and modeling that are contained in Section 2.4 of the LMGS PSAR. The NRC, as described in Reference 2, noted that LME expected this additional site-specific information to be confirmatory in nature.

Accordingly, this Supplement #2 includes redlined markups of certain Subsections to PSAR Chapter 2.4, "Hydrology," based on additional site-specific information and analyses, as presented in Enclosures 1 thru 5. Additional details for each Enclosure are described below:

- Enclosure 1: Provides a redlined markup of Subsection 2.4.2 "Floods." Subsection 2.4.2.2 "Flood Design Considerations," describes additional site-specific analyses and associated information that includes the postulated coincidental wind setup and wave run-up combined with the Probable Maximum Flood (PMF) results, the dam failure results, and the storm surge results. Editorial markups are shown in the remainder of Subsection 2.4.2.
- Enclosure 2: Provides a redlined markup of Subsection 2.4.3, "Probable Maximum Flood on Streams and Rivers," and describes additional site-specific analyses and associated information that includes the postulated coincidental wind setup and wave run-up. Editorial markups are also noted.



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- Enclosure 3: Provides a redlined markup of Subsection 2.4.4, "Potential Dam Failures," and describes additional site-specific analyses and associated information that includes a confirmatory analysis conducted in accordance with the JLD-ISG-2013-01. Editorial markups are also noted.
- Enclosure 4: Provides a redlined markup of Subsection 2.4.5, "Probable Maximum Surge and Seiche Flooding." Revisions to Subsection 2.4.5.2.2, "Storm Surge Analysis," Subsection 2.4.5.4, "Wave Action," and Subsection 2.4.5.5, "Wave Runup," describe additional site-specific analyses and associated information to include the refinement of the modeling assessment, wave height and period of wave action, and wave run-up on LMGS structures. Editorial markups are also noted.
- Enclosure 5: Provides a revised Subsection 2.4.10, "Flood Protection Requirements," which takes into account the additional site-specific analyses and associated information described in Enclosures 1 through 4. Editorial markups are also noted.

"Clean" pages reflecting the enclosed site-specific analyses and associated information are expected to be included in a future revision of the entire Reference 1.

This letter contains no commitments. Should you have any questions or require additional information, please contact Jessica Maddocks at jmaddocks@x-energy.com.

Sincerely,

DocuSigned by:
A handwritten signature in black ink that reads "Charles R. O'Connor".

7DB1A2114768476...
Charles R. O'Connor

Sr. Director, Engineering and Projects
Long Mott Energy, LLC

Enclosures:

1. PSAR Subsection 2.4.2, "Floods"
2. PSAR Subsection 2.4.3, "Probable Maximum Flood on Streams and Rivers"
3. PSAR Subsection 2.4.4, "Potential Dam Failures"
4. PSAR Subsection 2.4.5, "Probable Maximum Surge and Seiche Flooding"
5. PSAR Subsection 2.4.10, "Flood Protection Requirements"



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