



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

17 October 2025

2025-PLM-NRC-011

Docket No. 50-614

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

Subject: Confirmatory Information Regarding the Environmental 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)
- 3) U.S. Nuclear Regulatory Commission, 2025, "Long Mott Generating Station Environmental Report Audit Plan", August 28, 2025 (ML25240B607)

During the ongoing audit being conducted in accordance with Reference 3, the NRC staff identified specific instances of information contained within the LMGS Environmental Report (Enclosure 3 to Reference 1) requiring confirmation by Long Mott Energy, LLC. The NRC provided a draft summary of these requests for confirmation on September 26, 2025 and a revised summary was provided October 9, 2025. The following provides LME's reply to these identified draft requests for confirmation:

LME confirms the following additional information associated with:

- Accidents
 - The demographic information stated in Chapter 2 of the ER was used for the analysis in Section 5.13.
- Aquatic Ecology
 - LME does not plan to conduct dredging within any waterways for the construction or operation of LMGS. LME does not anticipate requiring a Section 10 permit.
 - Current designs do not include any pile driving activities within or adjacent to waterways. All pile driving activities will occur upland within the terrestrial portion of the action area.
 - Freshwater from the Guadalupe River is diverted near Tivoli east into the GBRA Diversion Canal and flows into Goff Bayou. Just above Goff Bayou Salt Barrier two 96" pipelines convey water underneath the Victoria Barge Canal to the GBRA/Dow pump station (owned by GBRA and operated by Dow SDO at GBRA direction). The pump station is equipped with seven submersible pumps of varying capacity and



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conveys water into the Calhoun Canal network. The canal runs south along HWY 185 and then turns towards Port Lavaca and runs along the southside of the SDO facility where it is pulled from the canal into the operating basins, currently via the GBRA Relift 1 Pump Station. A new LMGS intake will be constructed along this same segment of the canal “nearby and downstream of the existing” (ER pg 3.4-5) to serve Basin #5 for LMGS. It is assumed that the new intake structure would be similar to the existing pump station.

- Construction materials for LMGS are expected to be transported to the site by existing roads, there are no plans to barge in materials.
- Historical and Cultural Resources
 - The archaeological and architectural surveys conducted for LMGS contain the same information provided to the Texas SHPO (Davis and Andrews 2024; Hunter and Cantrell 2023).
 - In X-Energy’s conversations with the Texas Historical Commission (THC), the THC staff understood that the field surveys were conducted in support of LME’s proposed new reactor.
 - The correspondence provided in ER Appendix 1A documents the only correspondence exchanged between the Texas SHPO and LME in support of the proposed action. The first archaeological report written by WSP (Hunter and Cantrell 2023) covering 617 acres was conducted to support DOE-OCED’s NEPA for subsurface investigations (well installations). The second archaeological report written by WSP (Hunter and Cantrell 2024) covered additional acreage (930 acres) that was needed due to project needs that were not accounted for in the 2023 report.
 - LME’s background research for the cultural resource survey showed that no known Traditional Cultural Properties (TCPs) were recorded in the Area of Potential Effect or within the 1 km buffer surrounding the APE.
 - During the cultural surveys, no cultural material, archaeological sites, or potential TCPs were identified.
 - LME does not yet have an Inadvertent Discovery Plan (IDP) approved for the proposed action but will have one ready for implementation prior to the start of construction.
 - LME provided NRC an example IDP that will be used as a basis for LME’s future IDP.
- Human Health – Non-Radiological
 - No blasting activities will be conducted during construction of the LMGS.



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- Hydrology – Surface Water
 - LMGS surface water withdrawal rates for steam generation and water treatment, as summarized in ER Table 3-3.1, are not expected to have large fluctuations in annual variability
 - Captured SDO condensate from produced steam is discharged to existing SDO basins
 - The rate of steam delivered to SDO from LMGS will be essentially the same as that delivered by the existing natural gas-fired cogeneration plant.
 - LME is engaged with TCEQ regarding a CWA Section 401 Water Quality Certification for the LMGS project. Additionally, LME is aware that the NRC cannot issue a construction permit until: (1) a 401 certification or waiver has been issued by the certifying authority and (2) NRC has completed EPA's neighboring jurisdiction process as described in 40 CFR Part 121.
 - GBRA/Dow water rights presented in ER Table 2.3.1-10 are used to supply surface water to other non SDO surface water users of the GBRA Canal system, including supply for irrigation and municipal end users.
- Terrestrial Ecology
 - Out of the 23.52 ac of palustrine emergent (PEM) wetlands onsite, approximately 0.9 ac will be filled and 1 ac will be converted to another vegetation type for the duration of the project. Out of the 3.29 ac of palustrine scrub-shrub (PSS) wetlands onsite, 1.8 ac will be permanently converted to another vegetation type and 0 ac will be permanently filled.
 - The new MET tower will be 199 feet above ground level (AGL). It is not known at this time whether construction equipment will exceed 50 ft in height since a more detailed list of equipment has not been compiled. It is anticipated that at least one 200 foot crane will be utilized on site during construction.
 - The vegetation management for the transmission lines and switchyards includes mechanical (i.e., mowing, pruning, weeding) and chemical (i.e., herbicide) controls. A majority of the proposed transmission corridors are in developed areas where these controls are currently utilized. LME will consider the recommendations from TPWD for minimizing disturbance to aquatic habitats, including limiting personnel and equipment to those essential for the work, limiting vegetation removal to vegetation impeding construction, utilizing protective mats, and avoiding construction during aquatic organism spawning periods. During operations, herbicides are used for maintenance as needed on transmission and steam lines, parking lots, operating areas, and access roads, as



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well as any targeted invasive plant management. LME would apply herbicides according to labeled uses.

- Asclepias viridis was uncommon in herbaceous communities, including the northeast portion of the LMGS site, and only a small portion of this area will be permanently affected by building activities (Asclepias viridis, green milkweed, was listed as a common grass and forb in Section 2.4.1.4.5 and uncommon for herbaceous land cover in Table 2.4-7).
- The access/pipeline rights-of-way (ROWs) will result in a total of 5.3 ac of potential tree clearing, of which 3.5 ac would be from scrub/shrub habitat located west of the West Coloma Creek and east of the operating basins near SD-WET-09 and 1.8 ac would be from woody wetlands, within SD-WET-08. The transmission line will result in 0.2 ac of potential tree clearing, all of which would be from shrub/scrub habitat that is located between existing development near SD-STR-01. These numbers assume all temporary and permanent impacts will result in tree removal. Transportation
- Transportation
 - The radiological and non-radiological transportation accident analyses will be submitted as part of the Operating License Application.
- Waste Management – Radiological
 - The fuel kernels used by the Xe-100 at LMGS will be comparable to those used by the HTGR at Fort St. Vrain.

Sincerely,

DocuSigned by:
A handwritten signature in black ink that reads "Charles O'Connor".
7DB1A2114768476...

Charles O'Connor

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



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