[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-614; NRC-2025-0079]

Long Mott Energy, LLC;

Long Mott Generating Station;

Environmental Assessment, Finding of No Significant Impact, and Exemptions

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing an environmental assessment (EA) and finding of no significant impact (FONSI) regarding the NRC's consideration of issuance of a construction permit (CP) to Long Mott Energy, LLC (LME) for the proposed Long Mott Generating Station (LMGS) located in Calhoun County, Texas. If approved, the CP would authorize the construction of four Xe-100 small modular, high-temperature reactors that use solid tri-structural isotropic fuel and a helium gas cooling system. In addition, the NRC is issuing exemptions from certain NRC requirements which state that the NRC staff shall prepare and issue an environmental impact statement (EIS) to support the issuance of a CP for a nuclear power reactor facility. The NRC is granting the exemptions, and issuing the environmental assessment (EA) and FONSI concurrently to satisfy its obligations under the National Environmental Policy Act of 1969 (NEPA) and requirements under NRC regulations, related to the proposed action.

DATE: The EA and FONSI referenced in this document were available on May 18, 2026. The exemption was issued on May 18, 2026.

ADDRESSES: Please refer to Docket ID NRC-2025-0079 when contacting the NRC about the availability of information regarding this document. You may obtain publicly

available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to https://www.regulations.gov and search for Docket ID NRC-2025-0079. Address questions about Docket IDs in Regulations.gov to Bridget Curran; telephone: 301-415-1003; email: Bridget.Curran@nrc.gov. For technical questions, contact the individual listed in the "For Further Information Contact" section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly available documents online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. To begin the search, select "Begin ADAMS Public Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, at 301-415-4737, or by email to PDR.Resource@nrc.gov. For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the "Availability of Documents" section.

- **NRC's PDR:** The PDR, where you may examine and order copies of publicly available documents, is open by appointment. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Adrian Muñiz, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-4093; email: Adrian.Muniz@nrc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

On March 31, 2025, LME submitted, pursuant to part 50 of title 10 of the *Code of Federal Regulations* (10 CFR), "Domestic Licensing of Production and Utilization Facilities," a CP application for a reactor facility. The application included an environmental report (ER), as required by 10 CFR 50.30(f) and 51.50(a). On May 12, 2025, the NRC staff determined that the application was acceptable for docketing under Docket No. 50-614 (90 FR 24428).

If approved, the LMGS reactor facility would be located in Seadrift, Texas, and would contain four Xe-100 small modular, helium gas cooled, high-temperature reactors that use solid tri-structural isotropic fuel. The LMGS site is adjacent to an industrial facility, known as Seadrift Operations (SDO). SDO produces various chemical products.

Section 103 of the Atomic Energy Act of 1954, as amended, and its implementing regulations authorize the NRC to issue CPs for commercial power facilities. To issue a CP, the NRC is required to consider the environmental impacts of the proposed action under NEPA. The NRC's environmental protection regulations that implement NEPA in 10 CFR part 51 identify actions for which the NRC prepares an EIS. CPs for commercial nuclear power reactors are an action identified as requiring an EIS.

Based on an initial review of the ER submitted as part of the CP application for LMGS, the NRC staff concluded that it would be prudent to prepare an EA to determine whether preparation of an EIS would be necessary or whether a FONSI could be issued. The decision to consider an EA was based upon the staff's initial evaluation of the environmental impacts described in the ER, which indicated that a FONSI was possible and that preparation of an EA was appropriate.

The NRC staff has prepared an EA for the LMGS CP application in accordance

with the requirements in 10 CFR 51.30, “Environmental assessment.” In the EA, the NRC staff analyzed the environmental impacts of the requested CP and alternatives, as appropriate, and concluded “that the potential impacts from Long Mott Generating Station would be SMALL for each potentially affected environmental resource.”

Based on this EA and in accordance with 10 CFR 51.31(a), “Determinations based on environmental assessment,” the NRC staff has determined that preparation of an EIS is not necessary for the Long Mott Generating Station CP application and has prepared a FONSI in accordance with 10 CFR 51.32, “Finding of no significant impact.” The FONSI is detailed in Section III of this document.

The NRC staff determined that exemptions from the regulations in 10 CFR 51.20(b)(1), 10 CFR 51.25, and 10 CFR 51.75(a) are necessary to issue an EA and FONSI instead of an EIS to meet the staff’s obligations under NEPA and the NRC’s regulations for the environmental review of the LMGS CP application. Pursuant to 10 CFR 51.6, the NRC staff concluded that the exemptions are authorized by law and are otherwise in the public interest. Accordingly, the NRC is issuing exemptions from the requirements in 10 CFR 51.20(b)(1), 10 CFR 51.25, and 10 CFR 51.75(a). The exemptions are discussed in Section V of this document.

II. Summary of Environmental Assessment

Description of the Proposed Action and Need

The proposed action is for the NRC to issue a CP to LME authorizing construction of four Xe-100 modular reactors. The NRC issuance of a CP would constitute authorization for LME to proceed with the construction of the four Xe-100 reactors at a site at Seadrift Operations in Seadrift, Texas. The proposed action also includes the granting of exemptions from the requirements in 10 CFR 51.20(b)(1), 10 CFR 51.25, and 10 CFR 51.75(a).

The issuance of a CP is a separate licensing action from the issuance of an operating license (OL). If the NRC issues the CP, LME would have to submit a separate application to operate the facility pursuant to the NRC's regulations, and obtain NRC approval before it could operate the LMGS reactors. The NRC staff would review any application for an OL for LMGS for new and significant information related to the environmental impacts of operating and decommissioning LMGS that might alter the staff's conclusions made in the EA for the CP application.

LME stated that the need for the LMGS is to replace the existing fossil fuel facility which provides steam and electricity to SDO. Electrical power and steam for SDO is currently provided by an adjacent natural-gas fired cogeneration plant and associated gas turbines and heat generators, which are reaching the end of their operational life. LME also stated there is a need to demonstrate the Xe-100 reactor in support of the U.S. Department of Energy's Advanced Reactor Demonstration Program.

Environmental Impacts of the Proposed Action

In the EA, the NRC staff assessed the potential environmental impacts from the proposed action associated with the following relevant resource areas: land use and visual resources; air quality and noise; hydrogeology and water resources; ecological resources; historic and cultural resources; socioeconomics and human health; nonradiological waste management; uranium fuel cycle and radiological waste management; transportation of radioactive material; and postulated accidents.

In the EA, the NRC staff determined that the environmental impacts of the proposed action would be SMALL for each potentially affected environmental resource, meaning that the environmental effects are not detectable or are so minor that they will neither destabilize nor noticeably alter any important attribute of the resource. In addition, the NRC staff determined that the projected effects of climate change would not

alter any of the impact determinations described in the EA. The NRC staff also determined that there would be no additional environmental impacts resulting from the issuance of the exemptions.

Environmental Impacts of the Alternatives to the Proposed Action

The NRC staff identified a range of reasonable alternatives to the proposed action and the environmental impacts of the alternatives as appropriate. Because part of the purpose and need for the proposed Federal action is to demonstrate the Xe-100 reactor, the NRC did not consider energy alternatives to the proposed action. The NRC staff did consider three alternative sites adjacent to or near the SDO meeting the purpose and need, but determined that none of these sites would substantially differ with respect to environmental impacts. In addition, the NRC staff's EA analyzed the impacts of the no-action alternative in which the NRC would not issue a CP to LME.

III. Finding of No Significant Impact

The proposed action before the NRC is whether to issue a CP to LME to authorize construction of the four modular reactors making up the LMGS. The proposed action also includes whether to grant exemptions from the requirements in 10CFR 51.20(b)(1), 10 CFR 51.25, and 10 CFR 51.75(a). The NRC has conducted an environmental review of the application for the CP for the LMGS project as well as the proposed exemptions and prepared an EA. This FONSI incorporates by reference the EA summarized in Section II of this notice and referenced in Section IV of this notice. Based on the NRC staff's determinations in the EA that the environmental impacts would be SMALL for each potentially affected resource area and there would be no additional environmental impacts resulting from the issuance of the exemptions, the NRC staff has determined that the proposed action would not have a significant effect on the quality of the human environment. Accordingly, the NRC staff has made a determination that

preparation of an EIS is not required for the proposed action and that a FONSI is warranted. This finding and the related environmental documents referenced throughout the EA are available for public inspection as discussed in the EA and Section IV of this notice.

IV. Availability of Documents

The EA, FONSI, and other related documents are accessible online in the ADAMS Public Documents collection at https://www.nrc.gov/reading-rm/adams.html. The documents identified in the following table are available to interested persons through ADAMS, as indicated.

DOCUMENT TITLE	ADAMS ACCESSION NO.
Environmental Assessment and Finding of No Significant Impact for the Construction Permit and Environmental Review Exemptions for the Long Mott Generating Station	ML26112A016
Long Mott Energy, LLC, Construction Permit Application for Long Mott Generating Station, dated March 31, 2025	ML25090A057 (Package)
Long Mott Energy, LLC, Construction Permit Application Part III Environmental Report, dated March 31, 2025	ML25090A063
Long Mott Generating Station Construction Permit Application Review Schedule and Resource Estimate, dated June 10, 2025	ML25155B841
Long Mott Energy, LLC, Long Mott Generating Station Site Audit Plan, dated August 29, 2025	ML25240B607
Long Mott Energy, LLC, Long Mott Generating Station Site Audit Summary Report, dated March 30, 2026	ML26075A148

V. Exemptions

Background

On March 31, 2025, LME submitted a CP application and ER for the proposed LMGS reactor facility in Seadrift, Texas. On May 12, 2025, the NRC staff determined that the application was acceptable for docketing. The NRC's regulations in

10 CFR part 51 implement NEPA, and in accordance with 10 CFR 51.20(b)(1), the NRC staff is required to develop an EIS for the issuance of the CP for a nuclear power reactor.

Action

The regulations in 10 CFR part 51 implement NEPA in a manner that is consistent with NRC's domestic licensing and related regulatory authority under the Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended. The NRC's environmental protection regulations that implement NEPA in 10 CFR part 51 identify actions for which the NRC prepares an EIS. Issuance of CPs for nuclear power reactors are the type of action identified as requiring an EIS.

Based on a review of the ER submitted as part of the CP application for LMGS, the NRC staff concluded that it would be prudent to prepare an EA to determine whether preparation of an EIS would be necessary or whether a FONSI could be issued. The NRC staff finalized the EA for the LMGS CP application, which is summarized in Section II of this document. Based on the EA, the NRC staff has determined that preparation of an EIS is not necessary for the LMGS CP application and has prepared a FONSI, which is detailed in Section III of this document.

The NRC staff determined that exemptions from the regulations in 10 CFR 51.20(b)(1), 10 CFR 51.25, and 10 CFR 51.75(a) are necessary to issue an EA and FONSI instead of an EIS to meet the staff's obligations under NEPA and the NRC's regulations for the environmental review of the LMGS CP application. The regulation in 10 CFR 51.20(b)(1) requires an EIS or a supplement to an EIS for the issuance of a permit to construct a nuclear power reactor. Based on the EA, which is summarized in Section II of this document, and in accordance with 10 CFR 51.31(a), the NRC staff has determined that preparation of an EIS is not necessary for the LMGS CP application and has prepared a FONSI, which is detailed in Section III of this document. Since the NRC

staff is issuing a FONSI instead of an EIS for the LMGS CP environmental review, an exemption from 10 CFR 51.20(b)(1) is needed.

The regulation in 10 CFR 51.25 requires that the appropriate NRC staff director determine on the basis of the criteria and classifications of types of actions in 10 CFR 51.20, "Criteria for and identification of licensing and regulatory actions requiring environmental impact statements," whether an EIS or EA should be prepared. The NRC staff did not use the criteria in 10 CFR 51.20 to determine whether an EIS or EA should be prepared for the LMGS CP environmental review. Instead, based on factors unique to the LMGS CP application, and in accordance with 10 CFR 51.31, the NRC staff prepared an EA to determine whether preparation of an EIS would be necessary or whether a FONSI could be issued. Therefore, an exemption from 10 CFR 51.25 is needed.

The regulation in 10 CFR 51.75(a) requires preparation of an EIS related to the issuance of a CP for a production or utilization facility. The NRC staff prepared an EA for the LMGS CP environmental review in accordance with 10 CFR 51.31, to determine whether preparation of an EIS would be necessary or whether a FONSI could be issued. Since the LMGS CP application is for a utilization facility, an exemption from 10 CFR 51.75(a) is needed.

Discussion

Pursuant to 10 CFR 51.6, "Specific exemptions," the Commission may, upon application of any interested person, or upon its own initiative, grant exemptions from the requirements of 10 CFR part 51 that it determines are (1) authorized by law and (2) otherwise in the public interest.

Exemptions are Authorized by Law

The exemptions allowing the NRC staff to issue an EA and FONSI instead of an EIS are authorized by law because the NRC will satisfy its NEPA obligations by issuing

an EA and FONSI for the LMGS, and the issuance of this EA and FONSI will not violate any other applicable statute or NRC regulation. NEPA provides flexibility for how the NRC can satisfy its statutory obligations. Section 102(2)(C) of NEPA, 42 U.S.C. 4332(2)(C), as amended by the Fiscal Responsibility Act of 2023, states that agencies must provide a “detailed statement” for “major Federal actions significantly affecting the quality of the human environment.” Section 106(b)(1) of NEPA states that any agency shall issue an EIS for an action “that has a reasonably foreseeable significant effect on the quality of the human environment.” Section 106(b)(2) states that an agency shall prepare an EA for an action “that does not have a reasonably foreseeable significant effect on the quality of the human environment, or if the significance of such effect is unknown,” unless the agency finds that the proposed action is excluded pursuant to, among other things, another provision of law. Further, Section 106(b)(2) provides that the EA shall be a concise public document prepared by a Federal agency to set forth the basis of such agency's finding of no significant impact or determination that an environmental impact statement is necessary.

The EA for LMGS evaluated the potential impacts to 16 environmental resources relevant to the construction, operation, and decommissioning of LMGS. The EA concluded that the environmental impacts would be SMALL for each of the 16 potentially affected resource areas, and that the proposed action would not have a significant effect on the quality of the human environment.

Based on this EA and in accordance with 10 CFR 51.31(a), the NRC staff has determined that preparation of an EIS is not necessary for the LMGS CP application and has prepared a FONSI in accordance with 10 CFR 51.32. A summary of the EA and the detailed FONSI are located in Section II and III of this document respectively. As such, the NRC staff concludes that its statutory obligations under NEPA will be satisfied by

issuance of the EA and FONSI.

As previously noted, 10 CFR 51.6 allows the NRC to grant exemptions from the requirements of 10 CFR part 51. The NRC has determined that granting the proposed exemptions will not result in a violation of the Atomic Energy Act of 1954, as amended, NEPA, other applicable statutes, or the NRC's regulations. Accordingly, the NRC finds that the exemptions are authorized by law.

Exemptions are Otherwise in the Public Interest

The NRC staff has determined that the exemptions are in the public interest because they allow the Commission to regulate with efficiency in accordance with the NRC's "Principles of Good Regulation."[1] The NRC's mission is to regulate the nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote common defense and security and to protect the environment. The NRC adheres to its Principles of Good Regulation in carrying out this mission. These principles focus on ensuring safety and security while appropriately balancing the interests of NRC's stakeholders, including the public interest. The NRC is enabling the safe and secure deployment of advanced nuclear technologies for the benefit of the public.

The NRC describes the "Efficiency" principle, in part, as follows: "Regulatory activities should be consistent with the degree of risk reduction they achieve. Where several effective alternatives are available, the option which minimizes the use of resources should be adopted. Regulatory decisions should be made without undue delay." Consistent with the NRC's "Efficiency" principle, granting these exemptions, allows the NRC to "minimize the use of resources" and make its regulatory decision as efficiently as possible while still fulfilling its NEPA obligations through its evaluation of the

[1] https://www.nrc.gov/about-nrc/values.html

environmental impacts of the proposed action and alternatives, and the issuance of an EA and FONSI. By aligning the level of NEPA review with the project's potential environmental impacts, the NRC staff was able to conduct an efficient yet thorough analysis. This approach maintained the quality and integrity of the environmental review while supporting timely, informed decision-making.

Environmental Considerations for Exemptions

In accordance with 10 CFR 51.31(a), the Commission has determined that the granting of these exemptions will not have a significant effect on the quality of the human environment, as discussed in the NRC staff's EA and FONSI. A summary of the EA and the detailed FONSI are located in Sections II and III of this document, respectively.

Exemption Conclusion

Accordingly, the NRC has determined that pursuant to 10 CFR 51.6, that the exemptions are authorized by law and are otherwise in the public interest. Therefore, the NRC hereby grants one-time exemptions from the requirements in 10 CFR 51.20(b)(1), 10 CFR 51.25, and 10 CFR 51.75(a) to allow the NRC to issue an EA and FONSI instead of an EIS to meet its obligations under NEPA and the NRC's regulations for the environmental review of the LMGS CP application.

The exemptions are effective on May 18, 2026.

Authority: 42 U.S.C. 2011 *et seq*.

Dated: May 18, 2026.

For the Nuclear Regulatory Commission.

/RA/

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