



**U.S. Department of Energy
Office of Nuclear Energy
National Environmental Policy Act
Determination**

NEPA Identification.: DOE-ID-26-006

Proposed Action Title: Groves-1 Project

Location(s) (City/County/State): Proto-Town project site, Caldwell County, Texas

Proposed Action Description:

Oklo Inc. proposes to construct and operate the Groves-1 zero-power critical assembly reactor facility. The purpose of building this facility is to demonstrate Oklo's ability to safely design and construct a critical assembly, and to gain experience for future reactor development projects supporting domestic isotope production. Future facility developments can produce over 40 different high-value radioisotopes for medical, industrial, space, defense, and research. For purposes of DOE authorization under NEPA, the proposed Federal action is DOE's authorization to take possession of nuclear fuel at the Groves-1 facility and operate the reactor. The operational phase of the facility is set to begin by July 2026 and be complete by the end of 2026. The reactor core will be brought to criticality with low heat generation; the maximum power level is 100 watts.

The Groves-1 facility is located on the Proto-Town project site in Caldwell County, Texas. The facility is approximately 0.2 miles northwest of Mineral Springs Rd and approximately 0.1 mile southwest of West Fork Rd. The Proto-Town site is owned by the Greenwood Ventures Group, LLC and Oklo has a lease and access control for the Groves-1 land.

The facility itself is a 4,600-square-foot building which includes a 1,650-square-foot reactor room and adjoining equipment, control, and ancillary rooms. The reactor room contains a 35-foot-deep, below-grade, reinforced concrete reactor cavity with an approximate inside diameter of 22.5 feet. The Groves site, also referred to as the Site, is located within the Proto-Town project site on approximately 47 acres. Within this land, all facility features are located within an area of approximately 1 acre.

The Groves-1 design demonstrates the minimal offsite consequences through a maximum hypothetical accident (MHA) analysis. The MHA is a fuel handling accident involving fuel cladding failure resulting in fission product release; it bounds all credible accident scenarios, including an unplanned reactivity insertion, a loss of coolant accident, and natural phenomena hazards. It results in minimal radiation dose to facility workers, co-located workers, or members of the public. The conservative analysis demonstrates that the dose consequences of the MHA meet applicable acceptance criteria. The estimated doses to occupational workers and the public from normal operation are well within the annual limits given in 10 CFR Part 835, "Occupational radiation protection."

The Groves-1 design uses the Framatome GAIA fuel assemblies. These fuel assemblies are commercial fuel assemblies with an extensive history of safe operation in light water reactor applications. The fuel is low-enriched uranium in the form of uranium dioxide (UO₂) pellets. There are 5 fuel assemblies and the reactor won't be refueled.

The fuel storage systems safely store all fuel assemblies throughout the reactor lifecycle. Oklo uses qualified fuel handling casks to safely ship fuel assemblies. New fuel is stored in purpose-built racks onsite before it is loaded into the core. By using approved fuel handling procedures, Oklo can maintain subcritical configurations and protect workers from radiological hazards.

Irradiated fuel may be temporarily stored in the reactor tank until it is transferred to interim storage or prepared for shipment in a qualified fuel handling cask. Shielding, contamination, and criticality control procedures guide transfer activities. Fuel disposition pathways include disposition under the spent fuel disposition contract with DOE. Before final disposition, intermediate fuel disposition pathways may include transfer to a licensed interim dry storage system



**U.S. Department of Energy
Office of Nuclear Energy
National Environmental Policy Act
Determination**

NEPA Identification.: DOE-ID-26-006

or transfer to Oklo's planned fuel recycling facility. Alternative fuel disposition pathways include transfer to a licensed interim dry storage system or a licensed fuel recycling facility. Ultimately the fuel is returned to DOE for final disposition.

Used fuel is removed once decay heat and dose rates are sufficiently low to support fuel handling, which is expected almost immediately after final shutdown. The structures, systems, and components containing radioactive contamination are removed for their safe disposal at a commercially operated low-level radioactive waste disposal facility. Used fuel remains in the reactor tank until relocation. The remainder of the facility is removed, and the site is restored to substantially its original condition.

Environmental Aspects/Impacts:

Land Use

The Groves-1 facility has a small footprint with minimal impacts and is constructed and operated in compliance with all applicable Federal, State and local environmental, safety and health requirements. The project does not require the siting, construction, or expansion of waste storage, treatment recovery, or disposal facilities. All waste is managed and transported offsite in accordance with regulatory standards. As this is a greenfield site, no pre-existing hazardous substances, pollutants, or contaminants are disturbed in a manner that results in uncontrolled or unpermitted releases. The proposed action does not alter existing land use patterns beyond the minor conversion of a small, previously undeveloped portion of rangeland. As such, Oklo expects direct and indirect impacts of the construction, testing, operations, and disposition of the Groves-1 facility on land use to be minimal.

The Groves-1 facility and all facility features are sited on less than 1 acre within the 47-acre Proto-Town site in Caldwell County, Texas. The Groves-1 building itself occupies approximately 4,600 square feet, with the remainder of the 1-acre area supporting site access and associated site features.

The Proto-Town site comprises predominantly open rangeland interspersed with scattered woody vegetation, with denser vegetation concentrated in the northwestern and southern portions of the property [2]. The Groves site is in a rangeland area of the Proto-Town site. Three small ponds are located near the southwestern boundary of the Proto-Town site, including one man-made pond located inside the Proto-Town site boundary to the southwest of the Groves-1 facility. The surrounding landscape is characterized primarily by rural agricultural and low-density residential land uses. No heavy industrial development is present in the area.

The facility does not require the construction of surface impoundments, evaporation ponds, or settling basins for process effluents. Stormwater management is implemented in accordance with applicable regulatory requirements. Oklo does not expect stormwater runoff to alter regional drainage patterns in a manner that changes land use.

Air Quality

No airborne radioactive sources of concern are expected to be produced at the Groves-1 facility due to the zero-power operations and short operating time of the reactor. The activation of gases and particulates entrained in the reactor coolant or from activation of the coolant as it passes through the reactor core is of a negligible level.

There are minimal air emissions from a backup diesel generator during operations. Given the existing air quality considerations and the minimal impacts from the Groves-1 facility, the air quality impacts from operation of the Groves-1 facility are considered negligible.



**U.S. Department of Energy
Office of Nuclear Energy
National Environmental Policy Act
Determination**

NEPA Identification.: DOE-ID-26-006

Hydrologic Conditions and Water Quality

The Groves-1 facility does not affect existing floodplains, does not require stream diversion, does not discharge effluent to surface waters, and does not introduce new sources of surface water contamination. The municipal system supplies water use in quantities that do not constrain regional availability, and a permitted onsite system manages wastewater to prevent impacts to surface and groundwater. All this considered, the direct and indirect impacts of the testing, operations, and disposition of the Groves-1 facility are expected to have negligible impacts on surface water, groundwater, and municipal water.

Oklo does not propose any industrial process wastewater discharges to surface waters. There is no direct discharge of treated or untreated wastewater to Pen Oak Creek, West Fork Plum Creek, or any other waterbody.

Direct impacts of the Groves-1 facility do not include groundwater withdrawal for process, well drilling, or aquifer storage and recovery. Domestic wastewater generated at the facility is treated through a permitted onsite sewage facility and applied via subsurface drip irrigation in accordance with State standards, thereby minimizing the potential for groundwater degradation. No industrial effluent discharges, surface impoundments, or waste disposal practices that affect groundwater are required for the facility.

Given the depth to groundwater at the Site, the absence of groundwater extraction or contaminant release pathways, the operation/testing, and disposition Groves-1 facility is not expected to directly or indirectly result in measurable changes to groundwater quality or quantity within the Carrizo-Wilcox Aquifer.

Daily normal operations water demand is also supplied from the municipal system. Estimated operational water use includes 180,000–200,000 gallons per year of potable water for domestic and general facility use and approximately 35,000 gallons of industrial water per year for pool makeup. Additionally, the facility maintains a firewater storage tank with a capacity of approximately 100,000 gallons for fire protection purposes. The firewater system is a static storage feature and does not involve routine changes.

Geologic and Soil Conditions

The seismic hazard at the Groves-1 facility is low. Texas is generally characterized by low seismic activity, and review of historical earthquake records indicates few earthquakes of magnitude 4.0 or greater within 200 miles of the Site since 1900. No known earthquakes have occurred within 5 miles of the Site. There is no evidence of surface faulting at or near the Site. As a result, the potential for seismically induced ground shaking capable of causing structural damage or environmental effects is minimal.

No stream diversions, floodplain intrusions, or wetland disturbances are anticipated as part of the testing, operation, or disposition of the Groves-1 facility.

Vegetation Resources

Operational impacts to the vegetation are negligible as no discharges or thermal releases are anticipated. Stormwater is managed in accordance with applicable permits to prevent erosion and sediment transport into vegetated areas or the nearby ponds, which do not have a jurisdictional determination as wetlands. Oklo does not expect floodplains to be impacted.

Wildlife Resources

A threatened and endangered species habitat assessment, including a field investigation, was conducted across the entire Proto-Town site to evaluate the presence of sensitive habitats and protected wildlife species. The assessment



**U.S. Department of Energy
Office of Nuclear Energy
National Environmental Policy Act
Determination**

NEPA Identification.: DOE-ID-26-006

included a review of available regulatory databases, critical habitat mapping, and onsite reconnaissance to characterize existing vegetation communities and habitat conditions. As discussed in Section 3.5, the Proto-Town site consists primarily of savanna grassland with scattered woody vegetation. The closest designated critical habitat is located approximately 5.2 miles away in the San Marcos River for the Guadalupe Orb. No sensitive habitats were observed during the field investigation, and the Proto-Town site is considered unsuitable habitat for any State or Federally listed threatened or endangered species.

The Groves site was submitted as part of the Mineral Springs Frontier project to the U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) system on January 19, 2026. As confirmed with the U.S. Fish and Wildlife Service, DOE has no Endangered Species Act requirements or separate consultation procedures to complete on DOE's proposed action.

Given the closest critical habitat is approximately 5.2 miles away from the Site, no critical habitat is not expected to be impacted. The operation/testing, and disposition of the Groves-1 facility are not expected to have direct or indirect effects on any environmentally sensitive resources.

Visual Resources

The Groves-1 facility is a small project with a comparably small visual impact. Given the rural setting, absence of scenic designations, and limited public viewing opportunities, the Groves-1 facility is not expected to result in any significant adverse impacts to scenic values or aesthetic environmental conditions in the project area.

Historic and Cultural Resources

The Groves site is in an area with low potential for archaeological historic or cultural resources. A professional archaeological review was conducted for the Proto-Town site, including the Groves site, to determine if any cultural resource sites are present in the area. The archaeological survey revealed two previously recorded archaeological sites within 1 kilometer of the Proto-Town site, one prehistoric lithic scatter and a Late Archaic quarry/procurement site. Additionally, one cemetery was found within 1 kilometer of the Proto-Town site. The cemetery, identified as the Hall Family Cemetery, is located east, southeast of the Proto-Town site. The project area does not contain any known historic properties, buildings, structures, or districts governed by the National Historic Preservation Act (NHPA).

Oklo's contractor, Kleinfelder, performed a review of historic and cultural resources and reached concurrence with the Texas Historical Commission. In an email dated December 12, 2025, the Texas Historic Commission found no historic properties affected. Subsequently, DOE has determined that DOE's proposed action has no reasonably foreseeable impacts that would cause effects under Section 106 of the NHPA and have "No Potential to Cause Effects" to historic properties per 36 CFR §800.3(a)(1).

Waste Generation

The Groves-1 facility generates very small quantities of solid waste, hazardous waste, and radioactive waste. The short timeline for the project, with operation over approximately 100 hours, results in very small quantities of waste that do not impact the capacity of existing municipal, hazardous, and radiological waste disposal facilities.

No liquid radioactive sources of concern are expected to be produced at the Groves-1 facility due to the zero-power operations and expected short operating time of the reactor.

The Groves-1 facility operates as a Very Small Quantity Generator (VSQG) as defined under the Resource



**U.S. Department of Energy
Office of Nuclear Energy
National Environmental Policy Act
Determination**

NEPA Identification.: DOE-ID-26-006

Conservation and Recovery Act (RCRA) and corresponding regulations administered by the Texas Commission on Environmental Quality (TCEQ) under 30 Texas Administrative Code Chapter 335. As a VSQG, the facility generates less than 100 kg of hazardous waste per month and less than 1 kg of acutely hazardous waste per month.

Non-radioactive solid and hazardous wastes generated during operation are transported offsite to appropriately permitted facilities. No onsite landfills, long-term waste storage areas, or surface impoundments for waste disposal are required. Hazardous waste is managed under the facility's VSQG status in accordance with applicable regulations, and no hazardous waste disposal occurs onsite.

Wastes are stored in a manner that prevents releases to the environment and are transported offsite by a licensed hazardous waste transporter to a permitted treatment, storage, and disposal facility or authorized recycling facility. As a VSQG, the Groves-1 facility does not require a hazardous waste permit. The facility complies with all applicable TCEQ and U.S. Environmental Protection Agency (EPA) requirements governing hazardous waste management for VSQGs.

During routine operations, the facility generates small quantities of nonhazardous solid waste typical of light industrial and office functions. Given the facility size and anticipated staffing levels, operational solid waste generation is expected to be minimal. Operational solid waste is collected in standard refuse containers and removed on a routine basis by a licensed waste management service provider. Waste is transported to a municipal solid waste landfill or recycling facility. No solid waste disposal permits are required per TCEQ due to the facility's designation as a VSQG.

Operational hazardous waste generation is expected to be minimal. Typical generation quantities are expected to be well within the regulatory threshold for a VSQG. All hazardous waste generated during operations is characterized in accordance with applicable regulations, accumulated in properly labeled containers, and stored in designated areas that provide appropriate spill prevention and control measures. Hazardous waste is transported offsite by a licensed hazardous waste transporter and delivered to a permitted treatment, storage, and disposal facility or authorized recycling facility. Because the facility qualifies as a VSQG, no hazardous waste permit is required for operations. The facility complies with all applicable TCEQ and U.S. EPA requirements governing hazardous waste management for VSQGs.

Health and Safety Aspects

The Groves-1 facility employs inherent and passive safety features including large coolant inventory, passive heat removal, and negative temperature coefficients of reactivity.

A Radiation Protection Program (RPP) program applies to all activities performed at Groves-1 that involve, or could involve, occupational exposure to ionizing radiation. The RPP incorporates applicable methods from DOE G 441.1-1C, "Change 1 (Administrative Change), Radiation Protection Programs Guide for Use with Title 10, Code of Federal Regulations, Part 835, Occupational Radiation Protection," and is informed by relevant U.S. Nuclear Regulatory Commission guidance, as appropriate, to support implementation of the functional requirements of 10 CFR Part 835.

Operational emissions and noise levels are expected to be consistent with light industrial or research-type activities and remain limited in magnitude.

Reference: B5.26 "Advanced Nuclear Reactors"

B5.26: Authorization, siting, construction, operation, reauthorization, and decommissioning of advanced nuclear



**U.S. Department of Energy
Office of Nuclear Energy
National Environmental Policy Act
Determination**

NEPA Identification.: DOE-ID-26-006

reactors, provided the DOE determines: 1) the project's attributes, including potential fission product inventory, fuel type, reactor design, and operational plans, reduce sufficiently the risk of adverse offsite consequences from the release of radioactive or hazardous materials, and 2) the project demonstrates that any hazardous waste, radioactive waste, or spent nuclear fuel generated by the project can be managed in accordance with the applicable requirements. For the purposes of this category, a project may include multiple reactors within a nuclear facility.

For Categorical Exclusion Determinations

The proposal fits within the classes of actions listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures and satisfies the conditions that are integral elements of the classes of actions therein. The proposal does not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Appendix B.

There is no extraordinary circumstance related to the proposal that is likely to cause a reasonably foreseeable significant adverse effect or for which DOE does not know the environmental effect. Extraordinary circumstances are unique situations presented by specific proposals, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerning alternative uses of available resources.

The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. However, segmentation does not include proposals that are developed and potentially implemented over multiple phases where each phase results in a decision whether to proceed to the subsequent phase.

Based on my review of the proposed action, I have determined that the proposed action fits within the specified class(es) of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

NEPA Compliance Officer: