



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 27, 2026

MEMORANDUM TO: KewauneeSolutions

THRU: Kewaunee Power Station

FROM: Chris Allen, Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material, Safety
and Safety Guards

William C. Allen

Signed by Allen, William
on 01/27/26

SUBJECT: SUMMARY OF AUGUST 26, 2025, NRC PRE-APPLICATION SITE
VISIT TO DISCUSS THE KEWAUNEE POWER STATION LICENSE
TERMINATION PLAN

On August 26, 2025, U.S. Nuclear Regulatory Commission (NRC) staff from NRC Headquarters visited the Kewaunee Power Station (KPS) in Kewaunee, Wisconsin for a pre-application engagement for the KPS License Termination Plan (LTP) that will eventually be submitted. The site visit was conducted in order for NRC personnel to:

1. Tour the site to gain a better understanding of the site layout and the relationships between facility structures, natural land features, engineered land features, and the surrounding waterways.
2. Obtain an understanding of KewauneeSolutions' site characterization progress and their plans for developing the LTP.
3. Inquire about the schedule and potential complexities for LTP as well as discuss any unique or site-specific aspects that may impact the KPS LTP information.

CONTACT: Chris Allen, NMSS/DUWP
301-415-6877

Site Visit Participants

NRC Staff

Name	Title
Amy Snyder	Project Manager
Craig Hendrickson	Health Physicist
Greg Chapman	Senior Health Physicist
Randall Fedors	Senior Hydrogeologist
Cynthia Barr	Senior Risk Analyst
Isaac Johnston	Environmental Project Manager
Robert Mocko	Environmental Project Manager
Michael LaFranzo	Senior Health Physicist
Megan McGhee	Health Physicist
Ross Wagner	Project Manager

Kewaunee *Solutions*

Name	Title
Ron Worster	General Manager/Project Director
Kim Anthony	Environmental Manager
Dean Berres	Final Status Survey/License Termination Plan Manager
Joe Lynch	Regulatory Affairs Director
Brad McMahon	Decommissioning Plant Manager
Darren Peterson	Radiation Protection Manager
Tom Schneider	Site RA-Licensing
Dan Shannon	RP Technical Manager
Robert Yetter	Final Status Survey/License Termination Plan Director

Forthcoming Action:

KewauneeSolutions plans to submit the KPS LTP in the first half of 2026 under the provisions of 10 CFR 50.82(a)(9). In accordance with the NRC regulations and associated guidance, the LTP will include: (1) a site characterization; (2) identification of remaining dismantlement activities; (3) plans for site remediation; (4) detailed plans for the final radiation survey; (5) a description of the expected land use of the site; (6) an updated site-specific estimate of remaining decommissioning costs; (7) a supplement to the environmental report describing any new information or significant environmental change associated with KewauneeSolutions' proposed termination activities; and (8) identification of parts, if any, of the facility or site that were released for use before approval of the LTP.

The NRC staff's review of the KPS LTP will ensure that the remaining decommissioning activities planned at the site will adequately meet the radiological criteria for unrestricted use in 10 CFR 20.1402, "Radiological criteria for unrestricted use." The NRC staff will make the LTP available for public comment upon receipt. The NRC staff will subsequently schedule a public meeting in the vicinity of KPS to discuss the LTP and upcoming activities. If the KPS LTP demonstrates that the remainder of the decommissioning activities will be performed in accordance with the NRC's regulations, will not be inimical to the common defense and security or to the health and safety of the public, and will not have a significant effect on the quality of the environment, the NRC will approve the plan, by license amendment, subject to such conditions and limitations as the Commission deems appropriate and necessary to authorize

implementation of the LTP. The NRC will notice issuance of the amendment in the *Federal Register*.

Previous Pre-Application Activities:

On August 6, 2025, the NRC staff discussed the LTP development with KewauneeSolutions in a public meeting. NRC staff issued a summary of the meeting on September 4, 2025 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25233A217). Some of the topics covered during this interaction included the structure of the plan to conduct the final status survey, how site characterization information is being used to inform remediation plans and final status survey, a description of the exposure scenarios and pathways being considered, and general discussions of the environmental impacts of the dismantlement and decontamination activities that support license termination.

Site Visit Activities:

The agenda for the NRC site visit is provided in the enclosure. KewauneeSolutions presented an overview of site activities to the NRC staff. The overview identified ongoing decontamination and decommissioning activities, plans for building demolition, methods for waste and materials management, and radiological site characterization activities. Following the presentation, the NRC staff toured the site.

During the site tour, KewauneeSolutions discussed several topics including the following:

- KewauneeSolutions stated that the current groundwater monitoring program measures tritium and gamma emitting radionuclides, and there is a baseline measurement for hard to detect radionuclides (HTD). The NRC staff encouraged KewauneeSolutions periodically measure the groundwater for HTD radionuclides, particularly the beta emitter Strontium-90.
- KewauneeSolutions described the occurrence of tritium in settlement plugs (e.g., open boreholes extending down to the bedrock that are located under and near the edge of a building associated with the Auxiliary Building), with the tritium originating from gas-phase releases from an Auxiliary Building air system that migrated back down into the boreholes. NRC Staff suggested that the report documenting this be made available with the application submittal.
- KewauneeSolutions described the measurement profiles for sediment that builds up in the discharge structure. They indicated that little radioactivity was found in the profiles and suggested that the large buildup was due to sediment migration along the shore.
- KewauneeSolutions indicated that sampling of lake sediments was not performed at any locations other than the discharge structure, a topic previously brought up by the State of Wisconsin during the August 6, 2025 pre-application meeting (ADAMS Accession No. ML25233A217).
- KewauneeSolutions discussed surveys of stockpiled soils and inquired about potential tools to model the distribution of residual radioactivity in the piles.
- KewauneeSolutions discussed the use of human-driven and autonomous vehicles for surveying open land areas, and the use of video inside the intake structure.
- KewauneeSolutions indicated that there have historically been peregrine falcons nesting on the roofs of the reactor and auxiliary buildings; however, they are not known to currently be on site as the known nests were moved off-site, and the falcons have not returned.

- NRC staff suggested including information in the application about atmospheric dispersion, waste shipment routes (e.g., the route taken to the rail line for the final disposal destination), and any impacts on nearby fisheries or maritime sanctuaries in Lake Michigan, in the supplemental environmental report. NRC staff suggested that any documentation of past tribal or state consultations which would assist NRC staff in performing their National Historic Preservation Act consultation be included.

Topics discussed during the afternoon schedule included: groundwater monitoring, identifying radionuclides of concern, surveys of HTD radionuclides, providing justification for classifying radionuclides as insignificant contributors, dose modeling (e.g., selecting exposure scenarios and pathways, development of derived concentration guideline levels etc.), and information important for the environmental review (e.g., endangered species and historic preservation).

Please contact Chris Allen with any inquiries at 301-415-6877 or via e-mail at william.allen@nrc.gov.

Docket No. 50-305
Renewed License No. DPR-43

Enclosure:
1. Agenda

NRC Site Visit Agenda
Kewaunee Power Station License Termination Plan

Tuesday, August 26th

• Site Overview Presentation	0800 to 0930
• Site Tour	0930 to 1100
○ Site Boundaries	
○ Outfalls	
○ Groundwater Well Locations	
○ Air Sampling Stations	
○ Effluent Release Points	
○ Waste Staging Areas	
○ Spoils Areas	
○ Areas of Interest	
■ Previous leaks or spills [50.75(g) files]	
■ Buildings and soil that may require decontamination or remediation	
■ 20.2002 burial locations	
■ Three sludge disposal locations	
■ Piping that will be grouted and removed	
■ Buildings that remain after license termination, if any	
○ Independent Spent Fuel Storage Installation and Haul Road	
○ Environmental Report Areas of Interest	
■ Site locations of known cultural or historic value	
■ Marshes, wetlands, or conservation areas having potential Endangered Species Act importance	
• Lunch	1100 to 1230
• Environmental Discussion	1230 to 1330
○ Historical Site Assessment	
○ Endangered Species	
○ Other	
• Groundwater Monitoring and Final Status Survey Discussion	1330 to 1430
○ Groundwater Discussion	
○ Monitoring network	
○ Well abandonment	
○ Radionuclides of Concern versus measurements of radionuclides currently in the monitoring program	
○ Settlement plugs (past Groundwater Well measurements, abandonment for decommissioning)	
• Health Physics Discussion	1430 to 1500
○ Characterization	
○ Instrumentation	
○ Final Status Survey	
• Dose Modeling Strategy Discussion	1500 to 1530
• Closing/Exit	1530 to 1615

NRC August 26, 2025, Kewaunee Power Station Site Visit Summary DATE January 27, 2026

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