



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

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September 1, 1994

MEMORANDUM TO: John N. Hannon, Director  
Project Directorate III-3  
Division of Reactor Projects III, NRR

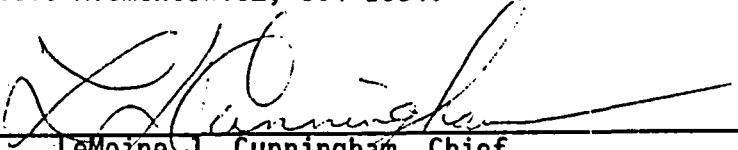
FROM: LeMoine J. Cunningham, Chief  
Radiation Protection Branch  
Division of Radiation Safety  
and Safeguards, NRR

SUBJECT: SAFETY EVALUATION FOR AN AMENDMENT TO AN APPROVED 10 CFR  
20.302 APPLICATION FOR THE KEWAUNEE NUCLEAR PLANT (TAC NO.  
M89719)

The Radiation Protection Branch (PRPB) has completed its review of the Wisconsin Public Service Corporation application, dated June 23, 1994, to amend an approved 10 CFR 20.302 application. The licensee requested NRC approval to use an additional onsite area for the disposal of contaminated sludge.

Enclosure 1 to this memorandum contains the Safety Evaluation that documents our evaluation of the licensee's application. Enclosure 2 shows the licensee's site and the designated disposal areas for the contaminated sludge.

Based on our review, we find the additional onsite disposal location proposed by the licensee to be acceptable. This completes our review under TAC No. M89719. The responsible reviewer is Steve Klementowicz, 504-1084.

  
LeMoine J. Cunningham, Chief  
Radiation Protection Branch  
Division of Radiation Safety  
and Safeguards, NRR

Enclosures: As stated

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SAFETY EVALUATION BY THE RADIATION PROTECTION BRANCH

OFFICE OF NUCLEAR REACTOR REGULATION

WISCONSIN PUBLIC SERVICE CORPORATION

KEWAUNEE NUCLEAR POWER PLANT

DOCKET NO. 50-305

1.0 Introduction

By letter dated June 23, 1993, and as supplemented on June 29, 1994, Wisconsin Public Service Corporation (the licensee) requested approval to use another onsite area for the disposal of contaminated waste sludge in addition to the location approved by the NRC on June 17, 1992.

2.0 Evaluation

A Safety Evaluation (SE) dated June 17, 1992, approved the licensee's request pursuant to 10 CFR 20.302 for the disposal of 15,000 cubic feet of contaminated waste sludge by land application at the Kewaunee Nuclear Power Plant (KNPP) at a specific onsite location. The SE imposed the following boundary conditions:

1. The annual disposal must be less than a total activity of 0.2 mCi.
2. The whole body dose to the hypothetical maximally exposed individual must be less than 0.1 mrem/year.
3. The disposal must be the same site.

The site designated in the SE for land application of the sludge was an unused area adjacent to the onsite lagoon at the KNPP sewage treatment facility. In 1993, approximately 7500 cubic feet of the original 15,000 cubic feet of contaminated sludge by land application was spread on that location. The licensee has now proposed to dispose of the remaining contaminated sludge at another onsite location northwest of the plant (see Enclosure 2). The licensee has committed that the new disposal location will meet all the radiological boundary conditions contained in the SE for the 10 CFR 20.302 application approved on June 17, 1992. Additionally, the licensee has stated that this additional disposal site will meet all applicable Wisconsin Department of Natural Resources (WDNR) application requirements (i.e. sludge application rate and frequency of spreading rate), in addition to WDNR landspreading requirements regarding location and performance standards that were required at the original disposal site.

### 3.0 Conclusion

The staff finds the licensee's proposal to dispose of the low-level radioactive waste sludge in the additional onsite location to be within the radiological boundary conditions approved in the June 17, 1992 SER and is therefore acceptable. The staff further finds that the licensee's proposal is in accordance with 10 CFR 20.2002 (which replaced 20.302 on 1/1/94).

As stated in the NRC's June 17, 1992 approval of the licensee's 10 CFR 20.302 application, the licensee is required to permanently incorporate this modification into the Offsite Dose Calculation Manual as an Appendix, and that future modification of this commitment be reported to the NRC.

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FIG. A  
KEWAUNEE NUCLEAR POWER PLANT SITE AREA MAP

