



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

25 JUL 1980

OFFICE OF THE
ADMINISTRATOR

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attn: Director, Division of Licensing

The U.S. Environmental Protection Agency (EPA) in accordance with Section 309 of the Clean Air Act has reviewed the draft Environmental Impact Statement (EIS) for the Primary Cooling System Chemical Decontamination at Dresden Nuclear Power Station Unit No. 1. EPA has no objection to the action described in this EIS; however, we have developed the attached comments which correct several inaccuracies in this EIS and which also identify several information gaps which we believe should be filled in the final EIS.

EPA also proposes that the U.S. Nuclear Regulatory Commission (NRC) prepare a generic EIS identifying the available waste treatment and disposal options for the eventual decontamination of other nuclear power reactors. This generic EIS should also address the cumulative environmental impacts of the whole series of likely decontaminations.

EPA has rated this EIS as "LO-2" (no objections to the action; incomplete information in the EIS), and EPA will inform the public of this rating by publishing it in the Federal Register as required by Section 309 of the Clean Air Act.

If you have any questions concerning EPA's rating or the attached comments or if we can be of any further assistance to you in this matter, please contact Ms. Betty Jankus of my staff; her phone number is (202) 755-0770.

Sincerely yours,

for Thomas R. Hedeman, Jr.
for William N. Hedeman, Jr.
Director
Office of Environmental Review

Enclosure

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THE U.S. ENVIRONMENTAL PROTECTION AGENCY
DETAILED COMMENTS ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

PREPARED BY
THE U.S. NUCLEAR REGULATORY COMMISSION (NRC)
FOR THE
PRIMARY COOLING SYSTEM CHEMICAL DECONTAMINATION
AT DRESDEN NUCLEAR POWER STATION NUCLEAR NO. 1
(NUREG-0686, Docket No. 50-10)

1. EPA recommends that NRC prepare a generic EIS discussing the options for waste treatment and disposal from all likely decontaminations of nuclear power reactors. EPA further proposes that this generic EIS address the cumulative environmental impacts of all decontaminations. Given the uncertainty concerning the continued availability of disposal facilities, EPA believes that this generic EIS should also discuss the availability of environmentally sound waste disposal facilities in the future.
2. It would be helpful to both technical and non-technical readers if diagrams of the plant layout and process flow were included. The diagrams should show the design features that mitigate emissions to the air (Section 4.2.2.B.) and those that preclude releases to the Illinois River. Most chemical processing operations can be more easily understood with such diagrams. The FEIS should also address the cumulative impacts of the emissions added to those from the other Dresden units and compare them to EPA's Uranium Fuel Cycle Standard (40 CFR 190).
3. Additional piping and equipment will be installed in order to decontaminate the piping of Unit No. 1. Once the decontamination is completed, these modifications may be removed. The FEIS should discuss whether this equipment will be contaminated and require special disposal and/or cleanup measures.
4. Section 4.3 contains a discussion of postulated accidents. This section should briefly discuss what contingency plans exist in the event of unplanned releases.
5. The EIS makes it clear that no free liquids will be present in the decontamination waste; however, other waste buried in the same waste trench at the disposal site might contain toluene or xylene, which could dissolve the Dow vinyl-ester resin in which the radionuclides will be solidified. This problem should be addressed in the final EIS.

6. Section 4.2.1 contains the discussion of occupational radiation exposure, yet does not clearly indicate how the exposures for the decontamination procedure were determined. We suggest 1) that a sample calculation be shown and 2) that the occupational exposures from the decontamination operation be summarized in a table in the final EIS. Section 4.2.1.C appears to contain an "additional" exposure of 100 rem which may or may not be an additional exposure over and above the 300 rem identified in Section 4.2.1.B. The final EIS should identify what the specific tasks are in the procedure that produce the highest individual occupational dose.

7. Table 1 (page 2-2) should indicate that cobalt-58 has a half-life of 71 days and that manganese-54 has a half-life of 303 days. (The same corrections should be made to table 1 in Appendix A on page 4.) [These tables should also list the estimated concentrations of long-lived corrosion products such as iron-55 (half-life of 2.6 years), nickel-63 (half-life of 92 years), and nickel-59 (half-life of 80,000 years).]

8. The list in Table 4 of decontamination factors for alternative cleaning solutions should include the decontamination factor for NS-1.

9. The response to question 3 of the ISEA petition incorrectly lists 10 nanocuries per gram as 10^{-9} Ci/gm. This should read 10^{-8} Ci/gm.