

NUCLEAR REGULATORY COMMISSION

SAFETY ANALYSES OF THE POTENTIAL INADVERTENT DISPOSAL OF TWO SPENT
FUEL RODS AT LOW-LEVEL RADIOACTIVE WASTE FACILITIES;

Notice of Availability

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of availability and request for public comment.

SUMMARY: The Nuclear Regulatory Commission's (NRC) Office of Nuclear Material Safety and Safeguards (NMSS) is announcing the availability for public comment of a set of draft safety analyses related to the potential inadvertent disposal of two spent fuel rods at a low-level radioactive waste facility. In November 2000, the licensee for Millstone Unit 1 (Dominion Nuclear Connecticut, Inc.) informed the NRC that the location of two spent fuel rods could not be determined and the following investigation by the licensee concluded that the two spent fuel rods may have been inadvertently sent for disposal as Class C low-level radioactive waste. One analysis was prepared for each of the two possible low-level radioactive waste facilities: the Hanford, Washington site and the Barnwell, South Carolina site. The NRC has determined, from these analyses, that the potential presence of the two fuel rods, at either site, would not constitute a present or future risk to public health and safety or the environment. The NRC is seeking public comment in order to receive feedback from the widest range of interested parties

and to ensure that all information relevant to developing the safety analyses is available to the NRC staff. The NRC will review public comments received on the draft documents. In response to those comments, suggested changes will be incorporated, where appropriate, and a final document will be issued.

DATES: Comments on this draft document should be submitted by [insert date 60 days from the date of publication in the Federal Register]. Comments received after that date will be considered to the extent practicable.

ADDRESSES: The draft safety analyses, “Long-Term Hazard of Millstone Unit 1's Missing Spent Fuel Rods Potentially Disposed at the Barnwell Commercial Low-Level Radioactive Waste Disposal Facility” and “Long-Term Hazard of Millstone Unit 1's Missing Spent Fuel Rods Potentially Disposed at the Hanford Commercial Low-Level Radioactive Waste Disposal Facility,” are available for inspection and copying for a fee at the Commission’s Public Document Room, U.S. NRC’s Headquarters Building, 11555 Rockville Pike (First Floor), Rockville, Maryland. They are also available electronically from the ADAMS Electronic Reading Room on the NRC web site at: <http://www.nrc.gov/reading-rm/adams.html> (ADAMS Access Numbers: Barnwell’s analysis - ML023610413; Hanford’s analysis - ML023610424)

Members of the public are invited and encouraged to submit written comments to: Christopher McKenney, System Performance Analyst (HP), Environmental and Performance Assessment Branch, Division of Waste Management, Office of Nuclear Material Safety and Safeguards, Mail Stop T-7J8, U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Hand-deliver comments to: 11555 Rockville Pike, Rockville, MD, between 7:30 a.m. and 4:15 p.m., Federal workdays. Comments may also be sent electronically to cam1@nrc.gov.

Copies of comments received may be examined at the ADAMS Electronic Reading Room on the NRC web site, and in the NRC Public Document Room, 11555 Rockville Pike, Room O-1F21, Rockville, MD 20852. The NRC Public Document Room is open from 7:45 a.m. to 4:15 p.m., Monday through Friday, except on Federal holidays.

FOR FURTHER INFORMATION, CONTACT: Christopher McKenney, Mail Stop T-7J8, Environmental and Performance Assessment Branch, Division of Waste Management, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. Telephone: (301) 415-6663; Internet: *cam1@nrc.gov*.

SUPPLEMENTARY INFORMATION: In November 2000, the licensee for Millstone Unit 1 (Dominion Nuclear Connecticut, Inc.) informed the NRC that the location of two spent fuel rods could not be determined. An investigative team was formed by the licensee and completed its investigation in October, 2001. A follow-up NRC inspection reviewed the findings of the investigation and agrees with the results. The result of the investigation was that there is a chance that the rods may have been unintentionally disposed at the Hanford, Washington, or Barnwell, South Carolina commercial low-level radioactive waste disposal facilities. The most likely explanation was that the rods were inadvertently shipped to Barnwell in 1988, as part of a shipment of Class C low-level radioactive waste. These safety analyses do not address the jurisdictional issues raised by the potential disposal of spent fuel at a shallow low-level waste disposal facility.

There are both short- and long-term considerations for reviewing the health and safety impacts of the rods potentially being at a low-level radioactive waste disposal facility. These include the type and amount of radioactivity present, the current location and disposition of the

suspected shipments, potential future groundwater release, and risk to potential inadvertent intruders. Dominion Nuclear Connecticut, Inc., provided an assessment of the risks from the missing fuel on October 5, 2001. A second assessment was provided by Dominion Nuclear Connecticut, Inc., on May 15, 2002, that responded to a NRC request for additional information. After investigating the short- and long-term considerations, for the reasons given in the safety analyses, NRC has determined that the presence of the two fuel rods at either low-level radioactive waste disposal facility does not constitute a present or future risk to the public health and safety or the environment.

Commentors are encouraged to submit their written comments on these two safety analyses to the addresses listed above. To ensure efficient and complete comment resolution, commentors are requested to reference the section, page, and line numbers of the document to which the comment applies, if possible.

Dated at Rockville, MD, this 24th day of December, 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

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Lawrence Kokajko, Branch Chief

Environmental and Performance

Assessment Branch

Division of Waste Management

Office of Nuclear Material Safety

and Safeguards