

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION
WASHINGTON, D.C. 20555-0001

March 1, 1996

NRC INFORMATION NOTICE 96-14: DEGRADATION OF RADWASTE FACILITY EQUIPMENT AT
MILLSTONE NUCLEAR POWER STATION, UNIT 1

Addressees

All holders of operating licenses or construction permits for nuclear power reactors.

Purpose

The U.S. Nuclear Regulatory Commission (NRC) is issuing this information notice to discuss degradation of radwaste facility equipment at Millstone Nuclear Power Station, Unit 1. It is expected that recipients will review the information for applicability to their facilities and consider actions, as appropriate, to avoid similar problems. However, suggestions contained in this information notice are not NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances

During a routine NRC inspection at Millstone, inspectors found that the Unit 1 radwaste facility equipment was significantly degraded, especially vessels and piping in the facility. In general, a lack of continuing and preventive maintenance appeared to have allowed several systems and components to significantly degrade, in some instances creating unnecessary adverse radiological conditions. Piping located in the mezzanine areas above the "C" and "D" floor drain collector tanks were notably rusted, with a dusting of flaked-off paint and rust deposited across all horizontal surfaces in this area. Inspectors also noted the degraded condition of several valve bodies and pipe flanges in the radwaste system. Three areas in this facility (the filter sludge tank room, the spent resin tank room, and the evaporator concentrates tank room) were sealed off because of radiological conditions. In the case of the filter sludge and spent resin tank rooms, these facilities are still in use and have temporary hoses passing through hand-stacked block walls to make the connections from these vessels to the waste processing systems in the Unit 1 waste processing buildings. The concentrates tank room was no longer in use, the last of the concentrates having been processed and disposed of in accordance with a licensee commitment to the NRC in 1990. A video tape taken in November 1994 during the last manned entry into the filter sludge tank room indicated that a crack in the filter sludge tank led to the dispersal of highly radioactive spent filter sludge throughout the tank room. Discussions with licensee staff members indicated that a similar condition exists in the spent resin tank room, which in this case is caused by the overflow of the spent resin tank.

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updated on 3/6/96

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Discussion

Although the licensee was recently able to significantly reduce the amount of spent resins and other media generated as a result of the replacement of the main condenser, large volumes of other resins continue to be generated because of antiquated processing and system control. The continued use of powdered filters, in addition to the problem previously identified with regard to the material condition of the sludge tank, has resulted in poor water quality throughout this system and the generation of unnecessary wastes.

In NRC Inspection Report, 50-245/95-35; 50-336/95-35; 50-423/95-35, dated September 11, 1995, NRC Accession Number 9509180222, the degraded condition of the radwaste systems, resulting from a general lack of appropriate maintenance, was identified as a significant weakness in the licensee's program. Subsequently, the NRC Region I Office has requested the licensee submit a description of its plans to improve the conditions in these radwaste areas.

This information notice requires no specific action or written response. If you have any questions about the information in this notice, please contact the technical contact listed below or the appropriate Office of Nuclear Reactor Regulation (NRR) project manager.

[Original signed by]

Dennis M. Crutchfield, Director
 Division of Reactor Program Management
 Office of Nuclear Reactor Regulation

Technical contact: Egan Y. Wang, NRR
 (301) 415-1076
 Internet:eyw@nrc.gov

Attachment: List of Recently Issued NRC Information Notices

*Attachment
 Filed in Jacket*

File name: 96-14.IN
 Tech Editor has reviewed and concurred as of 01/29/96
 *SEE PREVIOUS CONCURRENCES

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OFFICE	PECB/DRPM	PERB/DRPM	C/PECB:DRPM	D:DRPM
NAME	EWang*	CMiller*	AChaffee*	DCrutchfield
DATE	02/23/96	02/23/96	02/23/96	02/24/96

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LIST OF RECENTLY ISSUED
NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
96-13	Potential Containment Leak Paths Through Hydrogen Analyzers	02/26/96	All holders of OLs or CPs for nuclear power reactors
96-12	Control Rod Insertion Problems	02/15/96	All holders of OLs or CPs for nuclear power reactors
96-11	Ingress of Demineralizer Resins Increases Potential Stress Corrosion Cracking of Control Rod Drive Mechanism Penetrations	02/14/96	All holders of OLs or CPs for pressurized water nuclear power reactors
96-10	Potential Blockage by Debris of Safety System Piping Which is Not Used During Normal Operation or Tested During Surveillances	02/13/96	All holders of OLs or CPs for nuclear power reactors
96-09	Damage in Foreign Steam Generator Internals	02/12/96	All holders of OLs or CPs for pressurized water reactors
96-08	Thermally Induced Pressure Locking of a High Pressure Coolant Injection Gate Valve	02/05/96	All holders of OLs or CPs for nuclear power reactors
96-07	Slow Five Percent Scram Insertion Times Caused By Viton Diaphragms in Scram Solenoid Pilot Valves	01/26/96	All holders of OLs or CPs for boiling water reactors
96-06	Design and Testing Deficiencies of Tornado Dampers at Nuclear Power Plants	01/25/96	All holders of OLs or CPs for nuclear power reactors

OL = Operating License
CP = Construction Permit

McKnight

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March 1, 1996
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NAME	EWang	AMiller	AChaffee	DCrutchfield
DATE	02/23/96	02/23/96	02/23/96 VSB	02/ /96

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Subsequent licensee investigation determined that in the evaporator "A" room, a pile (approximately 50 cubic feet) of spent resin was on the floor, as well as dried evaporator concentrates. Dried evaporator concentrates were also found in the "A" and "B" concentrated tank room.

Discussion

Although the licensee was recently able to significantly reduce the amount of spent resins and other media generated as a result of the replacement of the main condenser, large volumes of other resins continue to be generated because of processing and system control. The continued use of powdered filters, in addition to the problem previously identified with regard to the material condition of the sludge tank, has resulted in the generation of unnecessary wastes.

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 Dennis M. Crutchfield, Director
 Division of Reactor Program Management
 Office of Nuclear Reactor Regulation

Technical contacts: Joseph T. Furia, RI
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DATE	02/29/96	02/ /96	02/ /96	02/ /96

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*See the attached concurrence from Region I, 2/29/96
 by Joe Furia. * See attached
 ** See attached*

From: Joseph Furia
To: WND2.WNP4(EYW)
Date: 2/29/96 3:00pm
Subject: IN 96-14, Millstone Radwaste Issue -Reply

The changes look good. Consider this my concurrence.

Joe

Subsequent licensee investigation determined that in the evaporator "A" room, a pile (approximately 50 cubic feet) of spent resin was on the floor, as well as dried evaporator concentrates. Dried evaporator concentrates were also found in the "A" and "B" concentrated tank room.

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