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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF NUCLEAR REACTOR REGULATION  
WASHINGTON, DC 20555

May 31, 1988

NRC INFORMATION NOTICE NO. 88-34: NUCLEAR MATERIAL CONTROL AND ACCOUNTABILITY  
OF NON-FUEL SPECIAL NUCLEAR MATERIAL AT  
POWER REACTORS

Addressees:

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

Purpose:

This information notice is being provided to alert addressees to recent inspection findings at several reactor facilities involving the failure to properly account for non-fuel special nuclear material (SNM) possessed under the facility license. This failure may have, in part, been as a result of the licensees' misunderstanding of the SNM regulations in 10 CFR Part 70 which require control of all SNM, not just SNM bearing fuel materials.

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 do not constitute NRC requirements; therefore, no specific action or written response is required.

Description of Circumstances:

During several recent material control and accounting inspections at power reactor facilities, licensee controls and accounting practices for non-fuel type special nuclear material have been found to be inadequate. Specifically, the licensees did not have adequate inventory records and they were not conducting adequate inventories of gram and milligram quantities of SNM in item form. These items consisted of both incore and excore detectors that contain SNM.

On the basis of initial findings, affected licensees were issued notices of violation or given specific time constraints to comply in those cases where

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licensees met the NRC enforcement criteria for licensee-identified violations. In either case, the salient findings to date have disclosed that certain licensees had not:

- (1) established, maintained, or followed written material control and accounting procedures to account for non-fuel SNM in their possession
- (2) maintained adequate records of the initial receipt or current inventory of non-fuel SNM
- (3) developed adequate inventory procedures or maintained adequate perpetual inventory records, including traceability of items to ultimate disposal
- (4) inventoried non-fuel SNM within the 12-month prescribed frequency
- (5) reported non-fuel SNM inventories on Form DOE/NRC 742, "Material Balance Report" for those items containing more than 1 gram of U-235 that had been received, via Form DOE/NRC-741, "Material Transaction Report"
- (6) staffed or trained their organization responsible for the control and accountability of SNM in an adequate manner
- (7) reported the loss of or inability to find non-fuel SNM items in a timely manner
- (8) controlled access (physically or administratively) to non-fuel SNM items in either cold or irradiated storage

These deficiencies are considered violations of 10 CFR 70.51(b)-(d), 70.52(a), and 74.13.

Discussion:

While the NRC requirements for the SNM bearing fuel materials have generally been met, some licensees have not exercised an adequate level of control over non-fuel SNM. These identified deficiencies indicate that licensees need to maintain appropriate administration and oversight of non-fuel SNM control activities. It is suggested that each power reactor licensee review the content of this information notice with its engineering and accountability staff as appropriate to ensure that the requirements for non-fuel SNM are being met.

No specific action or written response is required by this information notice. If you have any questions about this matter, please contact one of the technical contacts listed below or the Regional Administrator of the appropriate regional office.



Charles E. Rossi, Director  
Division of Operational Events Assessment  
Office of Nuclear Reactor Regulation

Technical Contacts: Gregory A. Todd, RII  
(404) 331-2797

Nancy E. Ervin, NRR  
(301) 492-0946

Attachment: List of Recently Issued NRC Information Notices

LIST OF RECENTLY ISSUED  
NRC INFORMATION NOTICES

Information Notice No.	Subject	Date of Issuance	Issued to
87-61, Supplement 1	Failure of Westinghouse W-2-Type Circuit Breaker Cell Switches	5/31/88	All holders of Ols or CPs for nuclear power reactors.
88-33	Recent Problems Involving the Model Spec 2-T Radiographic Exposure Device	5/27/88	All Agreement States and NRC licensees authorized to manufacture, distribute or operate radiographic exposure devices and source changers.
88-32	Promptly Reporting to NRC of Significant Incidents Involving Radioactive Material	5/25/88	All NRC material licensees.
88-31	Steam Generator Tube Rupture Analysis Deficiency	5/25/88	All holders of Ols or CPs for Westinghouse and Combustion Engineering-designed nuclear power plants.
88-30	Target Rock Two-Stage SRV Setpoint Drift Update	5/25/88	All holders of Ols or CPs for nuclear power reactors.
88-29	Deficiencies in Primary Containment Low-Voltage Electrical Penetration Assemblies	5/24/88	All holders of Ols or CPs for nuclear power reactors.
88-28	Potential for Loss of Post-LOCA Recirculation Capability Due to Insulation Debris Blockage	5/19/88	All holders of Ols or CPs for nuclear power reactors.
88-27	Deficient Electrical Terminations Identified in Safety-Related Components	5/18/88	All holders of Ols or CPs for nuclear power reactors.

OL = Operating License  
CP = Construction Permit

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