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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT  
WASHINGTON, DC 20555

May 28, 1980

IE Information Notice No. 80-22

BREAKDOWNS IN CONTAMINATION CONTROL PROGRAMS

Description of Circumstances

Recent inspections at power reactors have revealed breakdowns in contamination control programs resulting in releases of radioactive materials to the unrestricted area and off-site environment by several different pathways.

The first pathway was via disposal of supposedly clean trash in the nearby county sanitary landfill. High background radiation levels due to an onsite buildup of radioactive waste precluded adequate radiation surveys of clean trash prior to removal from the restricted area. In addition, the surveys were being conducted by improperly trained personnel. The result was the undetected disposal of radioactive material in the local sanitary landfill. An NRC inspector observed the practice and confirmed his suspicions when he detected levels of radiation 10 to 20 times normal background levels at the landfill. Subsequent surveys by the licensee, the State, and the NRC revealed several other areas in the landfill with higher than normal dose rates. Excavation by the licensee revealed items with contamination levels up to 100 mrem/hr contact reading. These items had been delivered with the clean trash from the plant and buried at the landfill.

A second pathway was identified to be through the sale by the licensee of scrap materials to salvage dealers in the surrounding area. Several items with contamination levels in excess of the licensee's unrestricted area release limits were discovered to have been sold to these vendors. Maximum dose rates on these items did not exceed 1.0 mrem/hr. This condition evidently also resulted from the elevated background radiation levels within the plant and the practice of permitting unqualified personnel to conduct radiation surveys.

A third pathway was found during a recent NRC inspection. An NRC inspector's radiation survey revealed soil contamination on site extending beyond the protected area fence. Radiation levels as high as 1.5 mrem/hr were measured on contact with the soil. The contamination is believed to be atmospheric fallout of particulate radioactivity which was exhausted from the plant stack during containment purge following explosive plugging of steam generator tubes. The steam generator manways were not covered and the purge system was not equipped with HEPA filters. The licensee's survey program did not include routine, periodic site and perimeter surveys.

This IE Information Notice is provided as an early notification of a significant matter that is still under review by the NRC staff. It is expected that recipients will review the information for possible applicability to their facilities. No specific action or response is requested at this time. If NRC evaluations so indicate, further licensee actions may be required.

No written response to this IE Information Notice is required. If you have any questions regarding this matter, please contact the Director of the appropriate NRC Regional Office.

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Enclosure

RECENTLY ISSUED  
IE INFORMATION NOTICES

Information Notice No.	Subject	Date Issued	Issued To
80-21	Anchorage and Support of Safety-Related Electrical Equipment	5/16/80	All power reactor facilities with an OL or CP
80-20	Loss of Decay Heat Removal Capability at Davis-Besse Unit 1 While in a Refueling Mode	5/8/80	All light water reactor facilities holding power reactor OLs or CPs
80-19	NIOSH Recall of Recirculating-Mode (Closed-Circuit) Self-Contained Breathing Apparatus (Rebreathers)	5/6/80	All holders of a power reactor OL, Research Reactor License, Fuel Cycle Facility License and Priority I Material License
80-18	Possible Weapons Smuggling Pouch	5/5/80	All power reactor facilities with an OL, fuel fabrication and processing facilities and Materials Priority I licensees (processors and distributors)
80-17	Potential Hazards Associated With Interchangeable Parts On Radiographic Equipment	5/5/80	All radiography Licenses
80-16	Shaft Seal Packing Causes Binding In Main Steam Swing Check And Isolation Valves	4/29/80	All power reactor facilities in your Region with an OL or CP
80-15	Axial (Longitudinal) Oriented Cracking In Piping	4/21/80	All Light Water Reactor Facilities holding power reactor OLs or CPs
80-14	Safety Suggestions From Employees	4/2/80	All power reactor facilities with an OL or CP