

## NUCLEAR REGULATORY COMMISSION REGION I

631 PARK AVENUE KING OF PRUSSIA, PENNSYLVANIA 19406

Docket No. 50-293

OCT 1 9 1979

Boston Edison Company M/C Nuclear
ATTN: Mr. G. Carl Andognini, Manager
Nuclear Operations Department
800 Boylston Street
Boston, Massachusetts 02199

Gentlemen:

Enclosed is IE Circular No. 79-21, "Prevention of Unplanned Releases of Radioactivity," which provides information on inadvertent releases/on-site spills of radioactivity. Should you have any questions related to the enclosed suggested preventive measures, please contact this office.

Sincerely,

Boyce H. Grier

Enclosures:

1. IE Circular No. 79-21

 List of IE Circulars Issued in the Last Six Months

cc w/encls:

P. J. McGuire, Pilgrim Station Manager

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## ENCLOSURE 1

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UNITED STATES NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFORCEMENT WASHINGTON, D.C. 20555

October 19, 1979

IE Circular No. 79-21

## PREVENTION OF UNPLANNED RELEASES OF RADIOACTIVITY

Numerous incidents of unplanned releases of radioactivity have been reported to the NRC within the past few months. These incidents of leaks, overflows and spills have resulted in contamination of areas outside of plant buildings. The attached table provides you with summary information on these events, their apparent causes, the radiological consequences and the corrective actions.

We believe that a number of these incidents could have been avoided and preventive actions for these types of unplanned releases should be instituted by all reactor licensees. Based on the reported incidents, the following preventive measures can minimize the occurrence of such events.

- 1. Review of procedures for transfer of radioactive liquids. Errors in written procedures have led to mistakes in valve line-ups and tank overflows. Written procedures, including check lists for valve lineups, should be developed and followed for operations which could cause spills of radioactivity. Management controls, including audits, should be employed to assure verbatim compliance with such procedures.
- Review of "as built" systems having the potential of inadvertent releases 2. because of design or construction errors. Consider items such as:
  - Tank overflows should be routed to liquid radwaste tanks. a.
  - b. Storm drains should be located away from areas with a high potential for spills.
  - Consideration should be given to drip pans under equipment, such C. as pumps and valves, from which leakage is expected.
  - d. Cofferdams should be installed under doors to areas with a potential for radioactive spills.
  - Preoperational testing should e. that would permit radioactivi unit(s) under construction.
- 3. Periodically functionally test and of systems that could cause an ina corrosion degradation have occurre to cause leaks. New permanent and

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Entire document previously entered into system under:

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