



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

June 20, 1979

Docket No. 50-271

Vermont Yankee Nuclear Power Corporation
ATTN: Mr. Robert H. Groce
Licensing Engineer
20 Turnpike Road
Westborough, Massachusetts 01581

Gentlemen:

This Information Notice is provided as an early notification of a possibly significant matter. 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 further NRC evaluations so indicate, an IE Circular or Bulletin will be issued to recommend or request specific licensee actions. If you have questions regarding this matter, please contact this office.

Sincerely,


for Boyce H. Grier
Director

Enclosures:

1. IE Information Notice
No. 79-17
2. List of IE Information Notices
Issued in 1979

cc w/encls:

W. F. Conway, Plant Superintendent
Ms. J. Abbey, Technical Secretary
A. Z. Roisman, Natural Resources Defense Council

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ENCLOSURE 1

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

IE Information Notice No. 79-17
Date: June 20, 1979
Page 1 of 2

SOURCE HOLDER ASSEMBLY DAMAGE FROM MISFIT BETWEEN ASSEMBLY AND REACTOR UPPER GRID PLATE

Description of Circumstances:

Recently, the NRC was informed of a problem at two Westinghouse PWR facilities resulting from an apparent misfit between secondary source holder assemblies and the reactor upper grid plate.

The misfit problem was first identified by Carolina Power & Light, licensee for H. B. Robinson Unit 2, who informed the NRC on May 6, 1979, of the circumstances. During the current refueling outage at H. B. Robinson 2, CP&L determined that two secondary source holder assemblies had been damaged during the previous refueling in February 1978, by a misfit between the assembly and the reactor upper grid plate. The misfit resulted from insufficient clearance (i.e. 1/2 to 3/4 inch) between the source holder assembly hub and the grid plate at the core locations containing thermocouple mixing vanes. This lack of sufficient clearance caused minor deformation of the upper grid plate components at the core location and of the source holder assemblies. The deformation also resulted in some bending of the fuel rods in the assembly, however, in no case did this bending result in fuel cladding perforation.

On May 16, 1979, the licensee of D. C. Cook Unit 1 informed the NRC that the present refueling outage would be extended 15 to 20 days to remove the reactor head, which had already been reinstalled following completion of refueling, to correct this misfit problem. They learned of the problem from Westinghouse. Subsequently, the licensee's inspection revealed that the source holder assembly hubs were in contact with the vanes. The source holder was removed from one assembly readily with no apparent damage while in the other the source holder was found stuck in the assembly. The problem was corrected prior to return to operations.

The secondary source assembly rods are normally inserted into rod cluster control assemblies and placed at symmetrical locations in the core. Each such assembly contains a symmetrical grouping of four secondary source rods and between zero and twenty burnable poison rods. Locations in the assembly not filled with a source or burnable poison rod are normally filled with a plug. The lack of sufficient clearance for these source holder assemblies at the core locations which contain

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