TIC

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION V
1990 N. CALIFORNIA BOULEVARD
SUITE 202, WALNUT CREEK PLAZA
WALNUT CREEK, CALIFORNIA 94596

March 14, 1980

Docket No. 70-1257

Exxon Nuclear Company
2101 Horn Rapids Road
Richland, Washington 99352

Attention: Dr. R. Nilson, Manager
Quality Assurance & Licensing

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, Bulletin, or Generic Letter will be issued to recommend or request specific licensee actions. If you have questions regarding the matter, please contact the Director of the appropriate NRC Regional Office.

Sincerely,

R. H. Engelken
Director

Enclosures:
1. IE Information Notice
No. 80-11
2. List of IE Information
Notices Recently Issued

C

8003250 143

SSINS No. 6870
Accession No.:
7912190684

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

March 14, 1980

IE Information Notice No. 80-11

GENERIC PROBLEMS WITH ASCO VALVES IN NUCLEAR APPLICATIONS INCLUDING FIRE PROTECTION SYSTEMS

Description of Circumstances:

Enclosure 1 is a Recall Notice from The Viking Corporation, dated July 16, 1979 that identifies ASCO valves used in certain Viking fire protection equipment that could fail.

Licensees should review their fire protection system components to determine if the equipment identified in the Viking Recall Notice is in their facility. If the identified equipment is installed in the fire protection system, then the modifications specified in the Recall Notice should be made and tested for proper operation. The requirements of the technical specifications or any other licensee commitment should be complied with when a fire protection system is disabled.

South Carolina Electric and Gas Company (Virgil C. Summer Nuclear Station) reported to the NRC on October 24, 1979, a potential significant deficiency regarding the effects of oil on elastomeric materials used in ASCO NP-1 solenoid valves. Specifically, these valves utilize an ethylene propylene elastomer which expands or swells when brought into contact with oils, possibly causing valve failure. For this reason, ASCO specifies these NP-1 solenoid valves for use in "oil free instrument air" systems.

Although instrument air systems are "oil free" by design, installation instructions may specify the use of thread lubricants utilizing an oil base. Thus, the potential exists for traces of this lubricant from threaded connections in the air system, in addition to traces of oil from the air compressors themselves, to come into contact with the elastomers in the solenoid valves. Degraded elastomers can cause the solenoid valve to fail by sticking, swelling closed flow paths, or rupturing causing leakage across the seat or to atmosphere. Failure of the solenoid to function properly on an active valve could prevent a system from performing its required safety function.

Some ASCO NP-1 solenoid valves are equipped with tags which state: "Important - this valve is equipped with ethylene propylene elastomers which [illegible] by oils and greases. To be used [illegible] pipe threads of cutting oils." Ca[illegible] lubricants which do not contain oi[illegible]