



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

~~CENTRAL FILE~~  
TERA

Docket No. 70-1100

March 14, 1980

Combustion Engineering, Inc.  
ATTN: Mr. H. V. Lichtenberger  
Vice President - Nuclear Fuel  
Nuclear Power Systems - Manufacturing  
P. O. Box 500  
Windsor, Connecticut 06095

Gentlemen:

The enclosed IE Information Notice No. 80-11, "Generic Problems with ASCO Valves in Nuclear Applications Including Fire Protection Systems," 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 written 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 this office.

Sincerely,

  
for Boyce H. Grier  
Director

Enclosures:

1. IE Information Notice No. 80-11 with Attachments
2. List of Recently Issued IE Information Notices

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ENCLOSURE 1

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

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IE Information Notice No. 80-11  
Date: March 14, 1980  
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GENERIC PROBLEMS WITH ASCO VALVES IN NUCLEAR APPLICATIONS INCLUDING FIRE  
PROTECTION SYSTEMS

Description of Circumstances:

Attachment 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 elastomer which is sensitive to oils and greases. To be used for pipe threads of cutting oils." Care should be taken to avoid the use of lubricants which do not contain oil.

DUPLICATE DOCUMENT

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