

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

October 21, 1983

IE INFORMATION NOTICE NO. 83-69: IMPROPERLY INSTALLED FIRE DAMPERS AT NUCLEAR  
POWER PLANTS

Addressees:

All nuclear power reactor facilities holding an operating license (OL) or construction permit (CP).

Purpose:

This information notice is provided as notification of three related potentially generic problems involving the improper installation of fire dampers in ventilation ducts which penetrate fire barriers in safety-related areas. Any one, or all three problems may exist at a facility. It is expected that recipients will review this information notice for applicability to their facilities. No specific action or response is required.

Description of Circumstances:

On June 13, 1983, at the Crystal River Station, while moving duct work to accommodate a plant modification, the licensee's personnel discovered that a required fire damper had not been installed in a ventilation duct between the Auxiliary Building and the Control Building. In evaluating and implementing corrective actions, the licensee identified two additional problems. The design drawings called for 3-hour fire rating on the dampers, but the procurement documents specified only 1-1/2-hour rating. Thus, 56 dampers installed in safety-related areas did not have the required fire rating. Further investigation revealed that 21 of the 56 identified fire dampers were not properly located within the duct system. These dampers were installed within the ducts in the fire area and not within the fire wall penetration as required by the design and installation Code, National Fire Protection Association Standard 90A, Air Conditioning and Ventilating Systems.

The situation may also exist at other facilities. Improperly installed fire dampers have been identified during recent NRC inspections at other nuclear power plants including Bellefonte, Farley, Grand Gulf, McGuire, and Watts Bar. These discrepancies existed primarily because of inadequate design data or because the design documents did not conform to the criteria of NFPA-90A or of the damper manufacturer.

Redundant safety-related equipment and components at nuclear power plants are required to be separated by distance or by fire-resistant walls, floors, enclosures, or other types of fire barriers. All penetrations in the fire barriers are required to be protected against the spread of fire in order for the barriers to be effective. Ventilation duct penetrations of fire barriers are required to be protected by means of fire dampers which are arranged to close in the event of fire. Improperly installed fire dampers could permit the passage of fire through a fire barrier and thereby jeopardize redundant safety-related systems.

Licensees are encouraged to review the fire damper installations at their facilities and determine whether the correct dampers are installed and whether the damper installation is in accordance with relevant criteria. No written response to this notice is required. If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office, or this office.

Edward L. Jordan, Director  
Division of Emergency Preparedness  
and Engineering Response  
Office of Inspection and Enforcement

Technical Contact: J. B. Henderson, IE  
(301) 492-9654

Attachment:  
List of Recently Issued IE Information Notices

\*SEE PREVIOUS CONCURRENCES

*DEPER:IE	*DEPER:IE	*DEPER:IE	*PSB:IE	*DEPER:IE
JBHenderson	AWDromerick	RLBaer	RSanders	ELJordan
8/ /83:lj	8/ /83	10/ /83	0/ /83	10/ /83

Redundant safety-related equipment and components at nuclear power plants are required to be separated by distance or by fire-resistant walls, floors, enclosures, or other types of fire barriers. All penetrations in the fire barriers are required to be protected against the spread of fire in order for the barriers to be effective. Ventilation duct penetrations of fire barriers are required to be protected by means of fire dampers which are arranged to close in the event of fire. Improperly installed fire dampers could permit the passage of fire through a fire barrier and thereby jeopardize redundant safety-related systems.

Licensees are encouraged to review the fire damper installations at their facilities and determine whether the correct dampers are installed and whether the damper installation is in accordance with relevant criteria. No written response to this notice is required. If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office, or this office.

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Redundant safety-related equipment and components at nuclear power plants are required to be separated by distance or by fire resistant walls, floors, enclosures, or other type fire barriers. All penetrations in the fire barriers are required to be protected against the spread of fire in order for the barriers to be effective. Ventilation duct penetrations of fire barriers are required to be protected by means of fire dampers which are arranged to close in the event of fire. Improperly installed fire dampers could permit the passage of fire through a fire barrier and thereby jeopardize redundant safety-related systems.

Licensees are encouraged to review the fire damper installations at their facilities and determine whether the correct dampers are installed and whether the damper installation is in accordance with relevant criteria. No written response to this notice is required. If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office, or this office.

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DEPER: IE  
RLBaer  
10/14/83

PSER: IE  
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Licenses are encourage to review the fire damper installations at their facilities and determine whether the correct dampers are installed and whether the damper installation is in accordance with relevant criteria. No written response to this notice is required. If you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office, or this office.

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8/1/83:lj

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8/24/83

DEPER:IE  
RLBaer  
8/ /83

PSB:IE  
RSanders  
8/ /83

DEPER:IE  
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8/ /83

Attachment  
IN 83-69  
October 21, 1983

LIST OF RECENTLY ISSUED  
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
83-68	Respirator User Warning - Defective Self-Contained Breathing Apparatus Air Cylinders	10/11/83	All nuclear power facilities holding an OL or CP; research and test reactors, fuel cycle licensees; Priority 1 material licensees
83-67	Emergency-Use Respirator Material Defect Causes Production of Noxious	10/11/83	All nuclear power facilities holding an OL or CP; research and test reactors, fuel cycle licensees; Priority 1 material licensees
83-66	Facility at Argentine Critical Facility	10/7/83	All nuclear power facilities holding an OL or CP; non- power reactor, critical facility and fuel cycle licensees
83-65	Surveillance of Flow in RTD Bypass Loops Used in Westing- house Plants	10/07/83	All Westinghouse facilities holding an OL or CP
83-64	Lead Shielding Attached to Safety-Related Systems Without 10 CFR 50.59 Evaluations	09/29/83	All power reactor facilities holding an OL or CP
83-63	Potential Failures of Westinghouse Electric Cor- poration Type SA-1 Differen- tial Relays	09/26/83	All power reactor facilities holding an OL or CP
83-62	Failure of Redundant Toxic Gas Detectors Position at Control Room Ventilation Air Intakes	09/26/83	All power reactor facilities holding an OL or CP

OL = Operating License  
CP = Construction Permit