



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
181 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30333

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3/25/81



Gentlemen:

This Information Notice No. 81-10 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 the Director of the appropriate NRC Regional Office.

Sincerely,

James P. O'Reilly
Director

Enclosures:

1. IE Information Notice No. 81-10
2. List of Recently Issued
IE Information Notices

8106180088

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March 25, 1981

Addresses

In Reference To

- | | |
|--|--|
| 1. Alabama Power Company
Attn: R. P. McDonald
Vice President-Nuclear Generation
Post Office Box 2641
Birmingham, AL 35291 | 50-348 Farley Unit 1
50-364 Farley Unit 2 |
| 2. Carolina Power and Light Company
Attn: J. A. Jones
Senior Executive Vice President
and Chief Operating Officer
411 Fayetteville Street
Raleigh, NC 27602 | 50-325 Brunswick Unit 1
50-324 Brunswick Unit 2
50-400 Harris Unit 1
50-401 Harris Unit 2
50-402 Harris Unit 3
50-403 Harris Unit 4
50-261 Robinson Unit 2 |
| 3. Duke Power Company
Attn: L. C. Dail, Vice President
Design Engineering
P. O. Box 33189
Charlotte, NC 28242 | 50-491 Cherokee Unit 1
50-492 Cherokee Unit 2
50-493 Cherokee Unit 3
50-488 Perkins Unit 1
50-489 Perkins Unit 2
50-490 Perkins Unit 3 |
| 4. Duke Power Company
Attn: W. O. Parker, Jr.
Vice President, Steam Production
P. O. Box 2178
Charlotte, NC 28242 | 50-369 McGuire Unit 1
50-370 McGuire Unit 2
50-269 Oconee Unit 1
50-270 Oconee Unit 2
50-287 Oconee Unit 3
50-413 Catawba Unit 1
50-414 Catawba Unit 2 |
| 5. Florida Power and Light Company
Attn: R. E. Uhrig, Vice President
Advanced Systems and Technology
P. O. Box 529100
Miami, FL 33152 | 50-335 St. Lucie Unit 1
50-389 St. Lucie Unit 2
50-250 Turkey Point Unit 3
50-251 Turkey Point Unit 4 |
| 6. Florida Power Corporation
Attn: J. A. Hancock, Assistant
Vice President Nuclear Operations
P. O. Box 14042, Mail Stop C-4
St. Petersburg, FL 33733 | 50-302 Crystal River Unit 3 |

Addresses

In Reference To

7. Georgia Power Company
Attn: J. H. Miller, Jr.
Executive Vice President
270 Peachtree Street
Atlanta, GA 30303
50-321 Hatch Unit 1
50-366 Hatch Unit 2
50-424 Vogtle Unit 1
50-425 Vogtle Unit 2
8. Mississippi Power and Light Company
Attn: N. L. Stampley
Vice President of Production
P. O. Box 1640
Jackson, MS 39205
50-416 Grand Gulf Unit 1
50-417 Grand Gulf Unit 2
9. Offshore Power Systems
Attn: A. R. Collier, President
P. O. Box 8000
Jacksonville, FL 32211
50-437 FNP 1-8
10. South Carolina Electric and Gas Company
Attn: T. C. Nichols, Jr., Vice President
Power Production and System
Operations
P. O. Box 764
Columbia, SC 29218
50-395 Summer Unit 1
11. Tennessee Valley Authority
Attn: H. G. Parris
Manager of Power
5COA Chestnut Street Tower II
Chattanooga, TN 37401
50-438 Bellefonte Unit 1
50-439 Bellefonte Unit 2
50-259 Browns Ferry Unit 1
50-260 Browns Ferry Unit 2
50-296 Browns Ferry Unit 3
50-518 Hartsville Unit 1
50-519 Hartsville Unit 2
50-520 Hartsville Unit 3
50-521 Hartsville Unit 4
50-553 Phipps Bend Unit 1
50-554 Phipps Bend Unit 2
50-327 Sequoyah Unit 1
50-328 Sequoyah Unit 2
50-390 Watts Bar Unit 1
50-391 Watts Bar Unit 2
50-566 Yellow Creek Unit 1
50-567 Yellow Creek Unit 2
12. Virginia Electric and Power Company
Attn: J. H. Ferguson
Executive Vice President-Power
P. O. Box 26666
Richmond, VA 23261
50-338 North Anna Unit 1
50-339 North Anna Unit 2
50-404 North Anna Unit 3
50-280 Surry Unit 1
50-281 Surry Unit 2

Addresses

In Reference To

13. Institute of Nuclear Power Operation
Attn: R. W. Pack
Lakeside Complex
1820 Waterplace
Atlanta, GA 30339
14. Southern Company Services, Inc.
ATTN: O. Batum, Manager
Nuclear Safety & Licensing
Department
P. O. Box 2625
Birmingham, AL 35202
15. Department of Energy
Clinch River Breeder Reactor
Plant Project Office
ATTN: Chief, Quality Improvement
P. O. Box U
Oak Ridge, TN 37830
16. EDS, Nuclear, Inc.
ATTN: E. H. Verbury
330 Technology Park/Atlanta
Norcross, GA 30092

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

March 25, 1981

IE Information Notice No. 81-10: INADVERTENT CONTAINMENT SPRAY DUE TO
PERSONNEL ERROR

Description of Circumstances:

On February 11, 1981 while in mode 5 (cold shutdown), an auxiliary unit operator at Sequoyah Unit 1 misunderstood a verbal instruction and opened a single valve in the residual heat removal (RHR) system. The opened valve created a direct flow path through the RHR system from the primary coolant system to the RHR containment spray header. A rapid primary system depressurization to atmospheric pressure resulted, and a total of about 110,000 gallons of water was sprayed into the containment from the primary system and from the refueling water storage tank (RWST).

Licensees and applicants should be aware of the following aspects of this event and should take appropriate steps to prevent a recurrence at their plant.

The auxiliary unit operator did not have adequate training or orientation at the particular duty station involved. A single valve at that station is part of the primary coolant system pressure boundary when using the residual heat removal (RHR) system for shutdown cooling. Thus, personnel/administrative problems and a plant design feature combined to cause the event.

Design of the control room annunciators contributed to prolonging the event. The panel indicating emergency core cooling system (ECCS) valve positions is designed to warn when the ECCS is not properly aligned for the injection (safety) mode. When the first valve misalignment occurs, one light comes on in an otherwise dark field of indicators, and an alarm sounds and flashes. However, in the shutdown cooling mode, several valves are not in their injection mode position. Therefore, in the event at Sequoyah, the alarm light had already been on continuously for some time, the annunciator was not supposed to operate, and one more light coming "on" in a valve-position-indicating field with several lights already "on" was easily missed. The operators thus failed to detect the presence of the inadvertently opened valve for at least 35 minutes.

Lack of an ECCS initiation procedure for use in the shutdown cooling mode did not significantly delay recovery from this event, but potentially could have done so had the primary system been at a higher pressure. To provide injection flow for pressurizer level recovery, the operators opened the RHR system suction valve from the RWST, but they neglected to close the RHR system suction valves from the reactor coolant system (RCS). A proper procedure would require those latter valves to be closed to prevent reactor pressure from seating a

check valve in the RWST suction line, which would prevent the injection mode for the low-pressure (RHR) pumps from being effective and delay recovery from the event.

A similar problem with the borated water storage tank (BWST) check valve occurred at Crystal River 3 on July 16, 1980 while the unit was in Mode 5 with the decay heat system in use for shutdown cooling. Improper valve alignment on the decay heat system heat exchangers caused a rapid cooldown of the RCS which resulted in a loss of pressurizer level. When recovery was attempted by realigning the decay heat system suction to the BWST, injection flow could not be established until RCS pressure approached atmospheric conditions since the RCS suction valves remained open.

This problem would be particularly significant under a LOCA condition with the RCS temperature above boiling (Mode 4).

The information herein is being provided as an early notification of a possibly significant matter that is still under review by the NRC staff. Recipients should review the information for possible applicability to their facilities. If NRC evaluation so indicates, further licensee actions may be requested.

No written response to this information notice is required. If you need additional information regarding this matter, contact the Director of the appropriate NRC Regional Office.

Attachment:
Recently issued IE Information Notices.

RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
81-09	Degradation of Residual Heat Removal (RHR) System	3/26/81	All power reactor facilities with an OL or CP
81-08	Repetitive Failures of Limitorque Operator SKB-4 Motor-to-Shaft Key	3/20/81	All power reactor facilities with an OL or CP
81-07	Potential Problem with Water-Soluble Purge Dam Materials Used During Inert Gas Welding	3/16/81	All power reactor facilities with an OL or CP
81-06	Failure of ITE Model K-600 Circuit Breaker	3/11/81	All power reactor facilities with an OL or CP
81-05	Degraded DC System at Palisades	3/13/81	All power reactor facilities with an OL or CP
81-04	Cracking in Main Steam Lines	2/27/81	All power reactor facilities with an OL
81-03	Checklist for Licensees Making Notifications of Significant Events in Accordance with 10 CFR 50.72	2/12/81	All power reactor facilities with an OL
81-02	Transportation of Radiography Devices	1/27/81	All Radiography licensees
81-01	Possible Failures of General Electric Type HFA Relays	1/16/81	All power reactor facilities with an OL or CP.
80-45	Potential Failure of BWR Backup Manual Scram Capability	12/17/80	All PWR facilities with an OL or CP
80-44	Actuation of ECCS in the Recirculation Mode While in Hot Shutdown	12/16/80	All PWR facilities with an OL or CP

OL = Operating Licenses
CP = Construction Permits