UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Gentlemen:

The enclosed information notice provides early notification of an event that may have safety significance. Accordingly, you should review the information notice for possible applicability to your facility.

No specific action or response is requested at this time. If you have questions regarding this matter, please contact this office.

Sincerely,

James P. O'Reilly
Regional Administrator

DEC 30 1981

Enclosures:
1. IE Information Notice No. 81-38
2. List of Recently Issued
   IE Information Notices

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PDR ADOCK 05000250
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Distribution for IE Information Notice 81-38 (INFORMATION)

December 17, 1981

Addressees	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 P. O. Box 4545 Atlanta, GA 30302	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 Productior 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 I-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 500A 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: R. H. Leasburg Vice President Nuclear Operations 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. Verdery
330 Technology Park/Atlanta
Norcross, GA 30092

SSINS No.: 6835
Accession No.:
8107230040
IN 81-38

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

December 17, 1981

IE INFORMATION NOTICE NO. 81-38: POTENTIALLY SIGNIFICANT EQUIPMENT FAILURES RESULTING FROM CONTAMINATION OF AIR-OPERATED SYSTEMS

Description of Circumstances:

The NRC has reviewed a number of problems related to contamination of air systems in operating nuclear plants. The review indicates that air-operated components and systems will occasionally become inoperable because they are contaminated with oil, water, desiccant, and rust or other corrosion products. The recent instances of inoperable air-operated components occurred at the the following facilities:

1. Palisades Nuclear Station - On July 18, 1981, an air-operated control valve failed to stay open. This resulted in both residual heat removal (RHR) trains becoming inoperable. The failure was attributed to the accumulation of water at the lowest point of the air system lines which coincided with the valve location (LER 81-030).

2. Rancho Seco Nuclear Station - On July 7, 1981, a pneumatically operated globe valve failed to close within the time required by the technical specification. Investigation revealed the presence of desiccant at the air discharge port (LER 81-037).

3. Zion Nuclear Station Unit Number 2 - On May 9, 1980, the containment air sample valve failed to close during the monthly containment isolation operability test. The valve failed to close because of oil contamination of the instrument air lines (LER 80-018).

4. San Onofre Nuclear Station Unit Number 1 - On February 4, 1980, the isolation valve for service water to containment failed to close while performing a containment isolation valve test. The failure of the instrument air filters allowed small particles of desiccant to enter the air lines. This prevented the soleroid air control valve from operating (LER 80-003).

No adverse impact on the health and safety of the public has been attributed to the events listed above. However, the potential for common mode failure, combined with the observed frequency of air service related events, indicates that added attention to air system reliability is warranted.

IE Circular 81-14, "Main Steam Isolation Valve Failures to Close," recommended that the holders of operating licenses and construction permits review their air systems to assure that measures are taken to prevent air quality degradation in the future.

Listed below are some of the actions known to minimize air system problems:

1. Frequent monitoring of the dewpoint of the instrument air.

2. Periodic checking of the desiccant and regeneration or replacement as needed.

3. Periodic blowdown of lines to remove oil, moisture, and crud to the instrument air system.

4. Periodic inspection of filters downstream of the desiccant cartridges to ascertain that the desiccant has not been pulverized to the point that it is escaping from the cartridge and possibly clogging the filters.

5. Avoiding the use of service air as a backup to the instrument air system when alternative backups are available.

6. Frequent monitoring of the instrument air system to ensure that it has not been contaminated with oil, moisture, or crud when service air used as a backup to the instrument air system.

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 you have any questions regarding this matter, please contact the Regional Administrator of the appropriate NRC Regional Office.

Attachment:
Recently issued IE Information Notices

Attachment
IN 81-38
December 17, 1981

RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
81-37	Unnecessary Radiation Exposure to Public and Workers during Events Involving Thickness and Level Measuring Devices	12/15/81	All byproduct material licensees
81-36	Replacement Diaphragms for Robertshaw Valve (Model No. VC-210)	12/3/81	All power reactor facilities with an OL or CP
81-35	Check Valve Failures	12/2/81	All power reactor facilities with an OL or CP
81-34	Accidental Actuation of Prompt Public Notification System	11/16/81	All power reactor facilities with an OL or CP
81-33	Locking Devices Inadequately Installed on Main Steam Isolation Valves	11/9/81	All power reactor facilities with an OL or CP
81-32	Transfer and/or Disposal of Spent Generators	10/23/81	All medical licensees
81-31	Failure of Safety Injection Valves to Operate Against Differential Pressure	10/8/81	All power reactor facilities with an OL or CP
81-30	Velan Swing Check Valves	9/28/81	All power reactor facilities with an OL or CP
81-29	Equipment Qualification Testing Experience	9/23/81	All power reactor facilities with an OL or CP
81-28	Failure of Rockwell-Edward Main Steam Isolation Valves	9/3/81	All power reactor facilities with an OL or CP
81-27	Flammable Gas Mixtures in the Waste Gas Decay Tanks in PWR Plants	9/3/81	All power reactor facilities with an OL or CP

OL = Operating License
CP = Construction Permit