

LICENSEE EVENT REPORT (LER)

|  |                                      |                      |
|--|--------------------------------------|----------------------|
| FACILITY NAME (1)<br>Catawba Nuclear Station, Unit 1 | DOCKET NUMBER (2)<br>0 5 0 0 0 4 1 3 | PAGE (3)<br>1 OF 0 3 |
|--|--------------------------------------|----------------------|

TITLE (4) Missed Surveillance Of Several Fire Detection Zones Inside Containment Due To A Management Deficiency

| EVENT DATE (5) |     |      | LER NUMBER (6) |                   |                 | REPORT DATE (7) |     |      | OTHER FACILITIES INVOLVED (2) |  |                  |
|----------------|-----|------|----------------|-------------------|-----------------|-----------------|-----|------|-------------------------------|--|------------------|
| MONTH          | DAY | YEAR | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH           | DAY | YEAR | FACILITY NAMES                |  | DOCKET NUMBER(S) |
| 0 8            | 0 1 | 8 6  | 8 6            | 0 4 1             | 0 3             | 0 2             | 0 1 | 8 8  | N/A                           |  | 0 5 0 0 0        |

|                           |  |  |                  |                  |  |                 |                      |  |  |  |  |
|---------------------------|--|--|------------------|------------------|--|-----------------|----------------------|--|--|--|--|
| OPERATING MODE (9)<br>1   | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) |  |                  |                  |  |                 |                      |  |  |  |  |
| POWER LEVEL (10)<br>0 7 0 | 20.402(b)  |  |                  | 20.405(c)        |  |                 | 50.73(a)(2)(iv)      |  |  | 73.71(b)   |  |
|                           | 20.405(a)(1)(i)  |  |                  | 50.38(c)(1)      |  |                 | 50.73(a)(2)(v)       |  |  | 73.71(c)   |  |
|                           | 20.405(a)(1)(ii)   |  |                  | 50.38(c)(2)      |  |                 | 50.73(a)(2)(vii)     |  |  | OTHER (Specify in Abstract below and in Text, NRC Form 365A) |  |
|                           | 20.405(a)(1)(iii)  |  |                  | X 50.73(a)(2)(i) |  |                 | 50.73(a)(2)(viii)(A) |  |  |  |  |
|                           | 20.405(a)(1)(iv)   |  |                  | 50.73(a)(2)(ii)  |  |                 | 50.73(a)(2)(viii)(B) |  |  |  |  |
| 20.405(a)(1)(v)           |  |  | 50.73(a)(2)(iii) |                  |  | 50.73(a)(2)(ix) |                      |  |  |  |  |

LICENSEE CONTACT FOR THIS LER (12)

|   |   |
|---|---|
| NAME<br>J. G. Torre, Assistant Engineer - Licensing | TELEPHONE NUMBER<br>7 0 4 3 7 3 - 8 0 2 9 |
|---|---|

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRRDS | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NRRDS |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
|       |        |           |              |                     |       |        |           |              |                     |
|       |        |           |              |                     |       |        |           |              |                     |

SUPPLEMENTAL REPORT EXPECTED (14)

|  |  |                               |       |     |      |
|--|--|-------------------------------|-------|-----|------|
| <input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) | <input checked="" type="checkbox"/> NO | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|--|--|-------------------------------|-------|-----|------|

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On August 1, 1986, at 1615 hours, during a surveillance review, it was discovered that several Reactor Building Fire Detection Zones had not had a Technical Specification required surveillance test performed after the Unit had been in Mode 5, Cold Shutdown for more than 24 hours from June 15, 1986 to June 19, 1986. The Technical Specification was violated on June 19, 1986.

Upon this discovery, the Reactor Building zones were declared inoperable and Containment Temperature monitoring was started on an hourly basis. This event was discovered with Unit 1 at 70% power.

This incident is attributed to a management deficiency. Responsibilities within the Maintenance Group for surveillance activities, including overdue surveillances, were not defined. Therefore, the fire detection surveillance was not recognized as incomplete when the unit entered Mode 4, Hot Shutdown, after being in Mode 5 for more than 24 hours.

The health and safety of the public were unaffected by this event.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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| FACILITY NAME (1)<br><br>Catawba Nuclear Station, Unit 1 | DOCKET NUMBER (2)<br><br>0 5 0 0 0 4 1 3 8 6 - 0 4 1 - 0 3 0 2 OF 0 3 | LER NUMBER (6) |                   |                 | PAGE (3) |  |  |
|  |   | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |  |  |
|  |   |                |                   |                 |          |  |  |

TEXT (If more space is required, use additional NRC Form 365A's) (17)

BACKGROUND

The purpose of the Fire Detection (EFA) System (EIIS:IC) is to monitor certain areas of the station for smoke and fire and to give plant personnel an early warning of the existence and location of the fire. Areas of the station which are monitored include areas containing safety related equipment, areas having high concentrations of combustible material, and other areas specifically required by NRC regulations.

Technical Specifications (Tech Spec) action statements for EFA Instruments located in Containment state that, with any detection instruments inoperable, the inoperable containment zone will be inspected every 8 hours, or containment temperature will be monitored at least once per hour. The surveillance requirement states that detectors not accessible during plant operation, will be demonstrated operable during each entry into Mode 5, Cold Shutdown, exceeding 24 hours unless performed in the previous 6 months.

DESCRIPTION OF EVENT

From October 27, 1985, to October 30, 1985, the Unit was in mode 5, and the Trip Actuating Device Operational Test (TADOT) was last performed for the Reactor Building zones. On June 15, 1986, at 0257 hours, the Unit entered Mode 5. The Instrumentation and Electric (IAE) Engineer for the EFA System informed the Unit 1 IAE Coordinator that Standing Work Requests (SWRs) 3516, 3610, 3611, 3612, and 3616 should be performed if the Unit remained in Mode 5 for more than 24 hours. Later that day the IAE Coordinator mentioned the SWR requirements at the Outage meeting. Operations personnel indicated that the Unit would probably be in Mode 5 less than 24 hours. On June 17, 1986, all the SWRs surveillance intervals, including grace periods, expired. The SWRs were planned for the outage by the Outage Planner on June 18, 1986. On June 19, 1986, at 0627 hours, the Unit entered Mode 4, Hot Shutdown without the TADOTs being performed resulting in a Tech Spec violation. The SWRs were placed in Planning's outage work request file on approximately July 15, 1986, and started appearing on the regular IAE Planners daily Outstanding Work Request Report (Planner did not know of the Tech Spec requirement). On August 1, 1986, at 1615 hours, Quality Assurance discovered that the surveillance requirement for the Reactor Building Zones had not been met during the previous entry into Mode 5. At 1705 hours, the Reactor Building EFA Zones were declared inoperable and monitoring of Containment temperature was begun on an hourly basis. The applicable SWRs were placed on the Unit Trip List to be performed during the next entry into Mode 3 or below on August 6, 1986. On September 5, 1986, the 5 SWRs were completed.

CONCLUSION

This incident is attributed to a management deficiency. Responsibilities within the Maintenance Group (IAE and Planning) for surveillance activities, including overdue surveillances, were not defined. Therefore, the fire detection surveillance was not recognized as incomplete when the Unit entered Mode 4 after being in Mode 5 for more than 24 hours. At the time of this incident, Operations did have a sign off stating that all of a groups specific surveillances had been

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|  |  | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |       |
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

met prior to a mode change in their Unit Startup procedure. However, the procedure did not address specific items.

At the time of this incident, there was a misunderstanding between IAE and Planning as to who was responsible for tracking surveillance SWRs. Each section thought that it was the other sections responsibility to keep up with the status of surveillance SWRs, including overdue ones. Since neither section kept up with the status of the five EFA SWRs, the surveillances were missed. had the responsibilities been defined for IAE and Planning, the EFA surveillances would have been identified. The responsibilities for IAE and Planning in relation to surveillance activities have now been defined.

There have been three other incidents that are considered similar to this one. In LER 413/85-02, the Ice Condenser Door blocks were not removed prior to entering a mode where the Ice Condenser was required. In LER 413/86-16 and LER 414/86-24, procedures were incomplete and a surveillance was not accomplished due to defective procedures.

CORRECTIVE ACTION

- (1) Containment air temperature was monitored on an hourly basis.
- (2) The affected SWRs were placed on the Unit Trip List and were performed at the next Mode 3, Hot Standby, entry.
- (3) Operations controlling procedures for mode changes were revised to identify specific SWRs required to be completed prior to mode change.
- (4) A working group was established consisting of representatives from IAE, Planning, Integrated Scheduling, Operations, and Performance to establish an appropriate forum for tracking SWRs and periodic procedures.
- (5) The responsibilities for IAE and Planning were defined in relation to surveillance activities.

SAFETY ANALYSIS

In the event that a fire were to occur in the containment building, the containment air temperature would indicate a substantial rise. The alarm setpoint for lower containment is 118 degrees F and for upper containment is 95 degrees F. If the temperature were to reach these setpoints an annunciator would alarm in the control room and appropriate action would be taken to investigate the temperature rise and suppress the fire if one existed.

This event is reportable pursuant to 10 CFR 50.72, Section (a)(2)(i)(B).

The health and safety of the public were not affected by this incident.

**DUKE POWER COMPANY**

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February 1, 1988

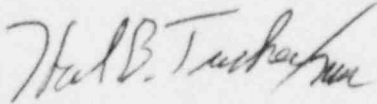
Document Control Desk  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: Catawba Nuclear Station, Unit 1  
Docket No. 50-413  
LER 413/86-41, Revision 3

Gentlemen:

Pursuant to 10 CFR 50.73 Section (a) (1) and (d), attached is Revision 3 to Licensee Event Report 413/86-41 concerning missed surveillance of several fire detection zones inside containment due to a management deficiency. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,



Hal B. Tucker

JGT/1297/sbn

Attachment

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