

ENCLOSURE 1

NOTICE OF VIOLATION

Duke Power Company
Oconee Nuclear Station
Units 1, 2, and 3

Docket Nos. 50-269, 50-270,
and 50-287
License Nos. DPR-38, DPR-47,
and DPR-55
EA 92-117

During an NRC inspection conducted on May, 24 - June 19, 1992, violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C, the violations are listed below:

- A. Technical Specification (TS) 3.4, Emergency Feedwater System, states that the reactor shall not be heated above 250 degrees Fahrenheit unless two 100 percent Emergency Feedwater flow paths are operable.

The TS Bases defines a 100 percent flowpath as the flow path to either steam generator including associated valves and piping capable of being supplied by either the turbine or associated motor driven pump.

Contrary to the above, the Unit 1 reactor was heated above 250 degrees Fahrenheit on May 11, 1992, and operated until May 25, 1992, with only one 100 percent flowpath operable. Steam generator 1A Emergency Feedwater level control valve, 1FWD-315, was incapable of opening automatically on an Emergency Feedwater actuation signal. The failure of this valve rendered one of the two Emergency Feedwater flowpaths inoperable.

This is a Severity Level IV violation (Supplement I) and is applicable to Unit 1 only.

- B. Technical Specification 6.4.1 requires that the station be operated in accordance with approved procedures. Station Performance Manual, Section 4.7, Support of Reactor Trips, Revision dated July 24, 1991, requires that a post trip review be conducted following a reactor trip.

Contrary to the above, the Oconee Nuclear Station Post Trip Review conducted after the Unit 1 reactor trip on May 8, 1992 was inadequate in that it did not require the reviewer to verify that all safety systems

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Units 1, 2, and 3

2 Docket Nos. 50-269, 50-270,
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performed as expected following a reactor trip. This resulted in the "A" train of the Emergency Feedwater system being inoperable and undetected.

This is a Severity Level IV Violation (Supplement I) and is applicable to all three Units.

Pursuant to the provisions of 10 CFR 2.201, Duke Power Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, a copy to the Oconee NRC Resident Inspector, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or Demand for information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

Dated at Atlanta, Georgia
this 22nd day of July 1992

ENCLOSURE 2

LIST OF ATTENDEES

U. S. Nuclear Regulatory Commission

S. D. Ebnetter, Regional Administrator, Region II (RII)
J. R. Johnson Acting Director, Division of Reactor Projects (DRP),
RII
A. F. Gibson, Director, Division of Reactor Safety (DRS), RII
E. W. Merschhoff, Deputy Director, DRS, RII
G. R. Jenkins, Director, Enforcement and Investigations
Coordination Staff, RII
C. F. Evans, Regional Counsel, RII
P. H. Skinner, Acting Chief, Reactor Projects Branch 3, DRP, RII
G. A. Belisle, Chief, Reactor Projects Section 3A, DRP, RII
L. A. Wiens, Project Manager, Project Directorate II-3, Nuclear
Reactor Regulation (NRR)
W. K. Poertner, Resident Inspector, Oconee, DRP, RII
B. B. Desai, Resident Inspector, Oconee, DRP, RII
B. Uryc, Senior Enforcement Specialist, RII
W. H. Miller, Jr., Project Engineer, Project Section 3A, DRP, RII

Attended by Teleconference

W. M. Troskoski, Enforcement Specialist, Office of Enforcement

Duke Power Company

J. W. Hampton, Vice President, Oconee Nuclear Site (ONS)
H. B. Barron, Station Manager, ONS
B. L. Peele, Engineering Manager, ONS
D. B. Coyle, System Engineering Manager, ONS
M. E. Patrick, Regulatory Compliance, ONS

ENCLOSURE 3

OCONEE NUCLEAR SITE

OPERATION WITH AN INOPERABLE

EFDW SYSTEM FLOWPATH

ENFORCEMENT CONFERENCE

JULY 17, 1992

AGENDA

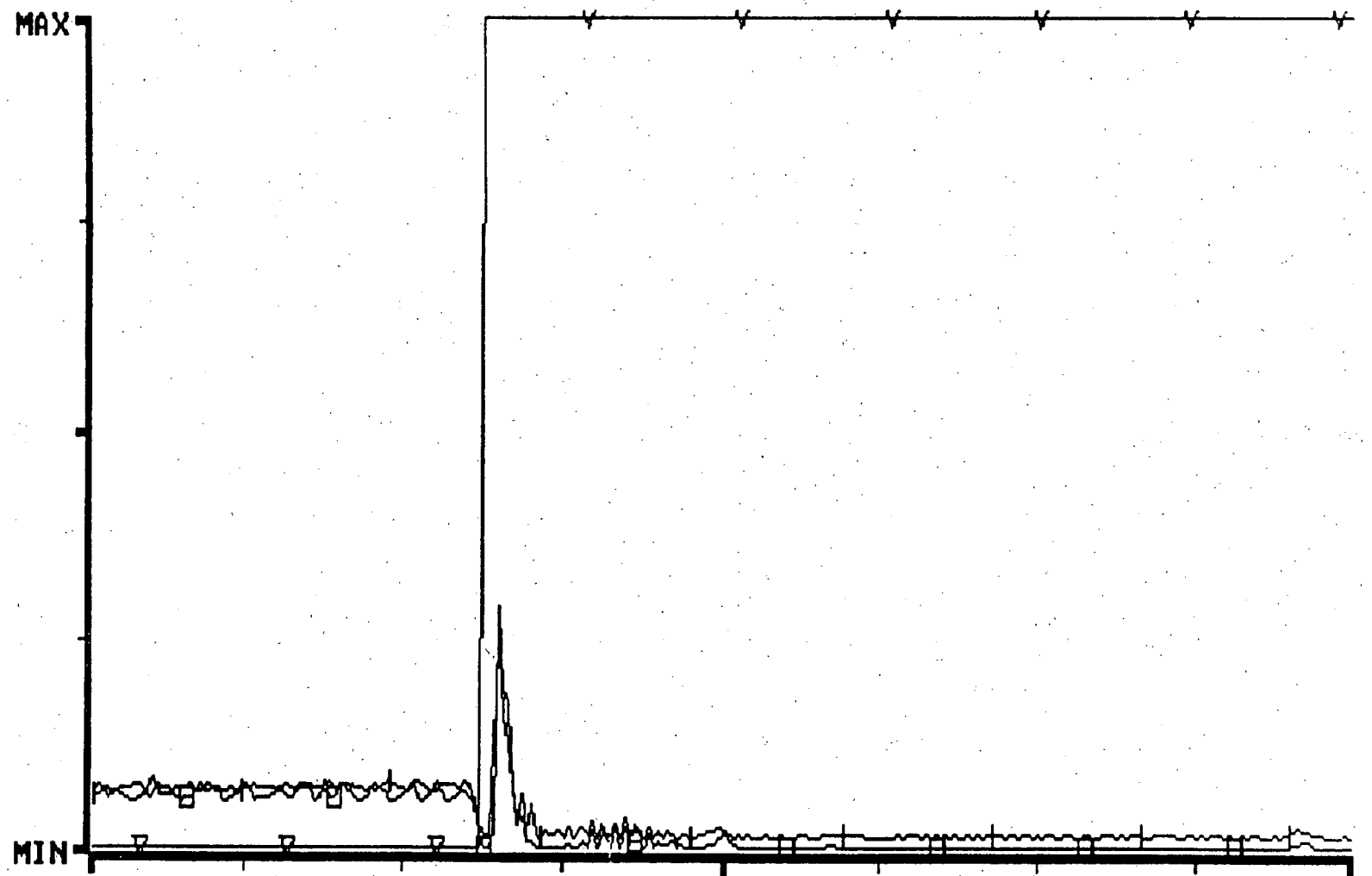
INTRODUCTION	J. W. Hampton
EVENT DESCRIPTION	B. L. Peele
SAFETY SIGNIFICANCE	B. L. Peele
POST TRIP REVIEW PROCESS	B. L. Peele
CORRECTIVE ACTIONS	B. L. Peele
CLOSING REMARKS	J. W. Hampton

EVENT DESCRIPTION

- **At 0342 on May 8th, Unit 1 tripped from 14% full power following a FDW transient which caused Emergency Feedwater (EFDW) to actuate**
- **This FDW transient did not trip main feedwater**
- **EFDW was secured following verification that main FDW flow and SG levels were responding appropriately**

EVENT DESCRIPTION

- **Trip response was reviewed utilizing Post Trip Review procedure which requires normal 15 minute plots for plant parameters, EFDW was on for 43 Seconds**
- **Conclusions of Post Trip Review were that trip responses were normal**
- **Discrepancy in EFDW flow was not identified**



03:37:01

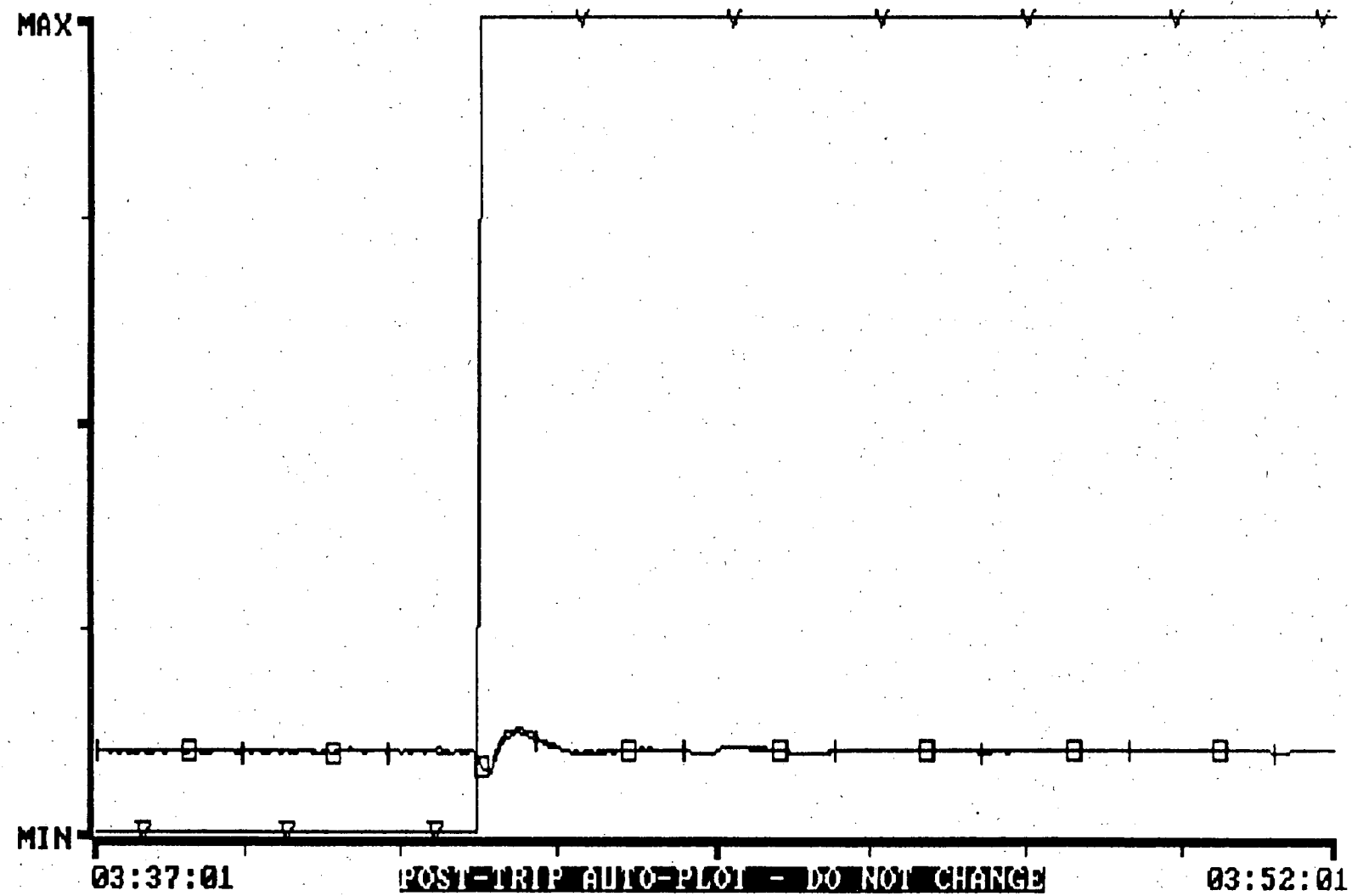
POST-TRIP AUTO-PLOT - DO NOT CHANGE

03:52:01

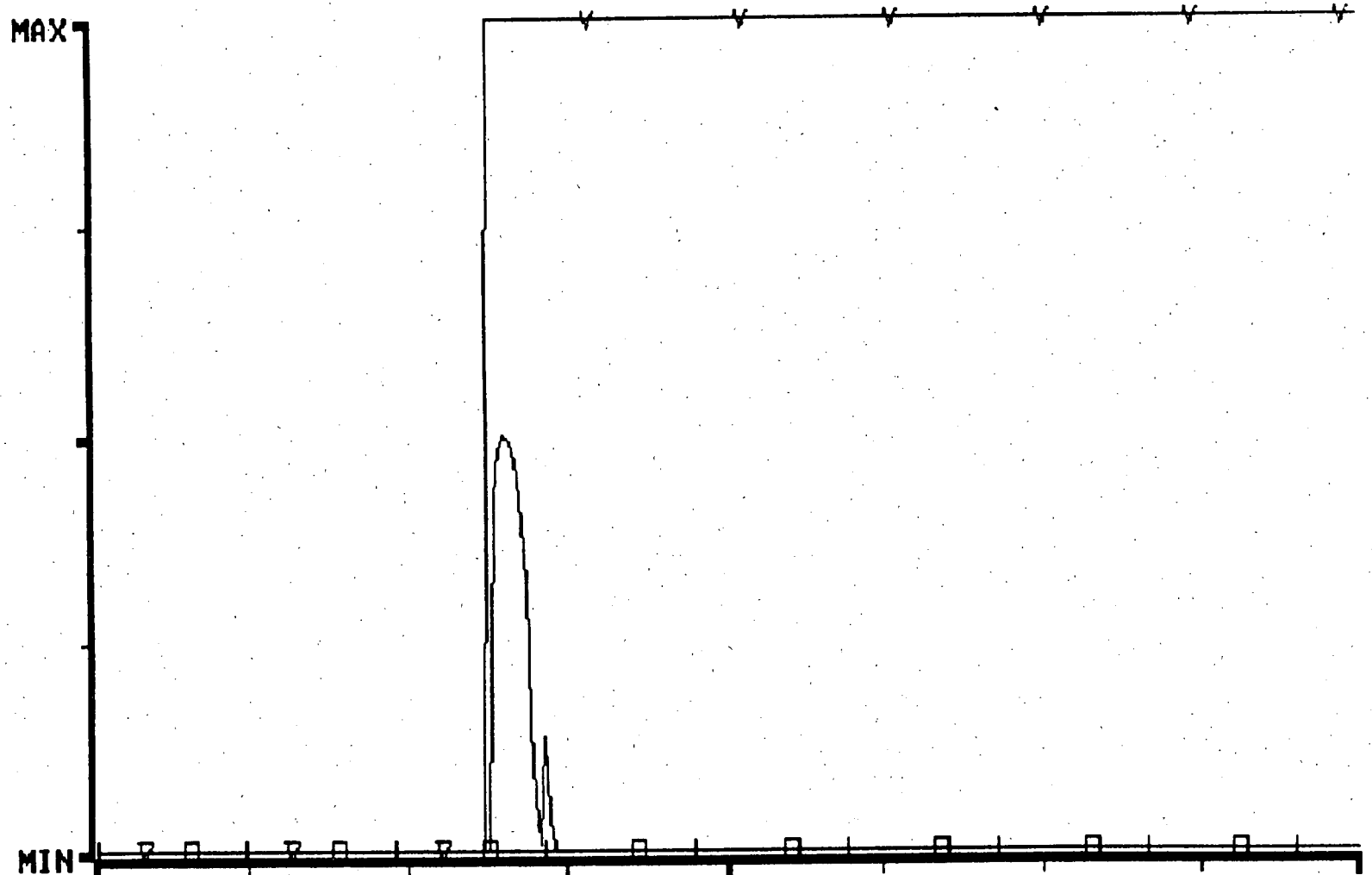
STY	TAG	MIN	MAX	EGU	DESCRIPTOR	NODE
+	A5047	0.00	6.00	MPPH	FDW FLOW A (SEL)	OC1030
□	A5048	0.00	6.00	MPPH	FDW FLOW B (SEL)	OC1030
▽	D5002	FALSE	TRUE		REACTOR TRIP	OC1030

03:44:31.90

05-08-92



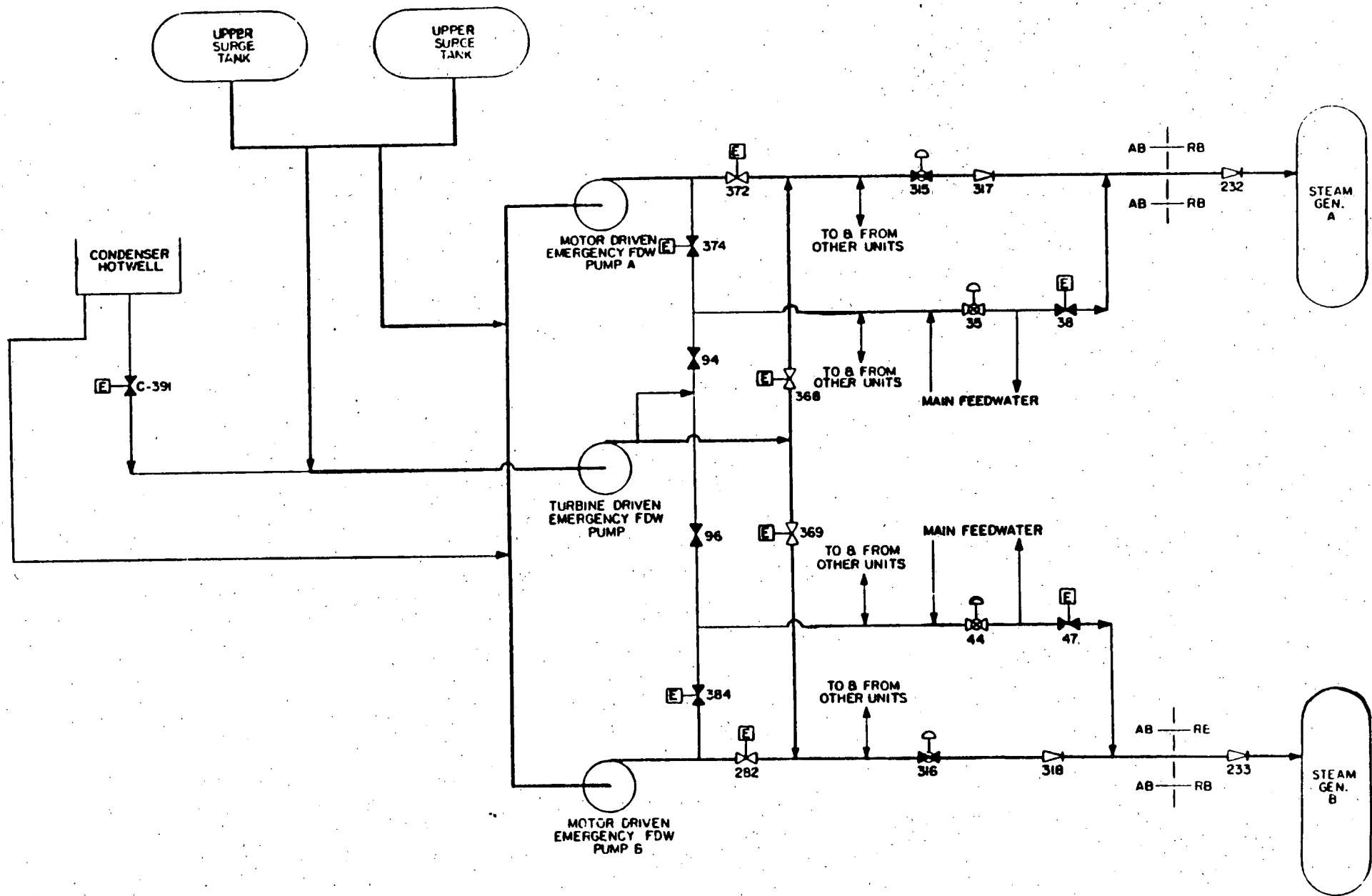
STY	TAG	MIN	MAX	EGU	DESCRIPTOR	NODE
+	A5039	0.00	250.00	INCH	SG STARTUP LEVEL A (SEL)	0C1030
□	A5040	0.00	250.00	INCH	SG STARTUP LEVEL B (SEL)	0C1030
▽	D5002	FALSE	TRUE		REACTOR TRIP	0C1030



03:37:01 **POST-TRIP AUTO-PROC - DO NOT CHANGE** 03:52:01

STY	TAG	MIN	MAX	EGU	DESCRIPTOR	NODE
+	A5049	0.00	1200.0	GPM	EFDW FLOW A	0C1030
□	A5050	0.00	1200.0	GPM	EFDW FLOW B	0C1030
▽	D5002	FALSE	TRUE		REACTOR TRIP	0C1030

03:44:31.90 05-08-92



OCONEE EMERGENCY FEEDWATER
SIMPLIFIED SCHEMATIC

EVENT DESCRIPTION

- Following a shutdown for RCP seal repair, a stroke test on 1FDW-315 revealed that it would not operate in the "Auto" mode
- Subsequent investigation revealed that a solenoid for enabling the "Auto" valve function had failed. This type failure had been previously identified in LER 287/91-07
- Solenoid was replaced with a newer model which was consistent with corrective actions outlined in the previous LER
- Corrective actions had been completed on Unit 2 and are still planned on Units 1 & 3
- Further evaluation (June 10th) of post trip response during RX trip on May 8th revealed that the "A" EFDW train exhibited no flow, ie. 1FDW-315 was not operable

SAFETY SIGNIFICANCE

- **Vulnerable to single failure on "B" EFDW train**
- **Manual operation still available on "A" EFDW train**
- **Valves were tested manually operable prior to startup on May 10/11**
- **Manual operation is a demonstrated and approved method of EFDW system operation**
- **The EOP instructs Operators to take manual control of EFDW in the event no flow is available**
- **Alternate means of RCS heat removal were still available**

POST TRIP REVIEW PROCESS

- **Framework of the current process has been utilized since 1983 at Oconee, McGuire, and Catawba. These procedures were transmitted to the NRC in response to Generic Letter 83-28 (Salem ATWS)**
- **Level of detail is comparable to the current INPO good practice (OP-211)**
- **Post Trip Review procedure was intended to be a guide and not an all inclusive checklist and to be performed by qualified individuals experienced in reviewing plant transients**
- **Performed by two Shift Managers, an Engineering Supervisor, and the Duty Reactor Engineer**
- **Focus was not on EFDW flow response since main FDW was still available and EFDW had been secured**

CORRECTIVE ACTIONS

- **Revise Post Trip Review process to include EFDW flow verification following actuation at all Duke sites**
- **All 3 sites will evaluate additional parameters that may need to be included in the Post Trip Review process**
- **Emphasis will be placed on verification of significant system responses during the Post Trip Review process.**
- **Solenoid valve replacements will continue on original schedule**
- **Valve stroke testing frequency has been increased from cold shutdown to quarterly**

CLOSING REMARKS

- **All three Duke sites will be reviewing the Post Trip Review process for enhancements**
- **Aware of and had reported the root cause of the failure and had a plan in place to replace solenoids**
- **Low safety significance**