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May 3, 1996
NRC-96-0031

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

- References:
- 1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF-43
 - 2) NRC Inspection Report No. 50-341/96002, dated April 4, 1996
 - 3) Detroit Edison letter, NRC-96-0016, Licensee Event Report [LER], No. 96-002, dated March 7, 1996

Subject: Reply to a Notice of Violation [Inspection Report
No. 50-341/96002 (DRP)]

Enclosed is Detroit Edison's reply to the Notice of Violation contained in Reference 2. Immediate and short term corrective actions have been completed or are underway as discussed in this response.

The following actions discussed in this response will be tracked as specific commitments:

1. Work control procedures will be revised such that a Surveillance Performance Form (SPF) will require a partial surveillance to be performed only in accordance with the appropriate procedure. This will ensure that the appropriate precautions and limitations are addressed. This action will be completed by May 31, 1996
2. When the refurbishment of CTG 11-1 is completed, permanent changes to the appropriate procedures will be made to add guidelines for Operations personnel regarding verification that the CTG 11 battery is charged following the loss of AC power to the CTG 11 battery charger.

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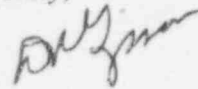
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May 3, 1996
NRC-96-0031
Page 2

Detroit Edison believes the actions being taken will prevent recurrence of these violations. The actions in progress and those under development will improve performance at Fermi 2.

If there are any questions, please contact Mari Jaworsky, Compliance Engineer, at (313) 586-1427.

Sincerely,



Enclosure

cc: T. G. Colburn
M. J. Jordan
H. J. Miller
T. Vogel
Region III

STATEMENT OF VIOLATION [96002-02]

10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings" requires, in part, that activities affecting quality be prescribed by documented instructions, procedures or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, and drawings. Contrary to the above, the following example of [an] inadequate procedure [was] identified:

On January 23, 1996, Surveillance Performance Form for Event Number 4134960017, "ISI increased frequency for Valve E1150-F603B Division 2 Cooling Tower Bypass Valve," a procedure prescribing an activity affecting quality, was not appropriate to the circumstances. Specifically, the procedure was insufficient to prevent unexpected isolation of the Division 2 Ultimate Heat Sink, which rendered the Division 2 Residual Heat Removal Service Water, diesel generator service water, and emergency closed cooling service water systems inoperable for approximately three minutes.

REASON FOR THE VIOLATION

The violation occurred because inadequate communication existed between Operations, the Surveillance Schedulers, and the Inservice Inspection (ISI) group concerning the performance of the increased frequency surveillance for E1150F603B. In June 1995, the ISI group placed E1150F603B on increased stroke-time test frequency due to erratic opening stroke behavior.

E1150F603B had been previously stroked once each quarter during a Technical Specification surveillance test. In the revision current at that time, this surveillance had two separate groups of steps for testing the Division 2 cooling tower valves. In both cases a flow path for the service water pumps was maintained and the systems remained operable during testing.

In order to accomplish the increased testing, the surveillance scheduler created an "event" to perform stroke time testing of E1150F603B using a sequence of steps provided by the ISI group. These steps were put on a Surveillance Performance Form (SPF) which directed closing the E1150F603B and timing the subsequent opening stroke using specifically identified steps from the associated surveillance procedure. When performed in the Standby Mode, with the inlet isolation valves open and E1150F603B closed, opening and then closing E1150F603B does not cause inoperability since the Residual Heat Removal Service Water (RHRSW) flow path to the cooling tower is maintained through the open inlet isolation valves. However, if this sequence were run in the Bypass Mode, with the inlet isolation valves closed and E1150F603B open during cold weather operations, the RHRSW discharge flowpath is temporarily isolated from the ultimate heat sink. This sequence of steps was not appropriately reviewed. Had the appropriate review been performed, it may have been discovered that this SPF was inadequate for cold weather testing in the Bypass Mode.

In early January 1996, the SPF was revised by the Surveillance Scheduler to include steps from Surveillance 24.205.06 to stroke E1150F603B in either the Standby or Bypass Modes. The

Enclosure to
NRC-96-0031
May 3, 1996
Page 2

steps chosen for the Bypass mode simply closed and opened the E1150F603B without opening a flow path to the cooling tower. This revision to the SPF was not reviewed prior to implementation by either the ISI group or Operations.

CORRECTIVE ACTIONS TAKEN AND RESULTS ACHIEVED.

Increased frequency surveillance SPF for E1150F603B has been revised to currently include a cautionary step that a Limiting Condition for Operation (LCO) entry will be made when performing this surveillance in the Bypass Mode. The change to the SPF identifies to Operations personnel that an LCO will be entered when this increased frequency surveillance is performed in cold weather months when lined up in the Bypass Mode.

Other increased frequency surveillance SPF's that designate specific steps in procedures have been reviewed by both Operations and ISI personnel. One additional precautionary note and several format changes have been incorporated into some SPF's as a result.

CORRECTIVE ACTIONS THAT HAVE BEEN AND WILL BE TAKEN TO AVOID FURTHER VIOLATIONS:

Work control procedures will be revised such that an SPF will require a partial surveillance to be performed only in accordance with the appropriate procedure. This will ensure that the appropriate precautions and limitations are addressed. This action will be completed by May 31, 1996.

Until changes to work control procedures are completed, partial surveillance periodicity changes are reviewed by Operations and System Engineering prior to implementation. This review will ensure appropriate steps from the parent surveillance procedure are listed, impacts to plant operations are noted, and that system operability is not adversely affected.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED.

Detroit Edison is currently in compliance. Actions described above will help ensure continued compliance.

STATEMENT OF VIOLATION [96002-10]

10 CFR Part 50, Appendix B, Criterion V, "Instruction Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, the following example of [an] inadequate procedure [was] identified:

From July 14, 1995, through October 4, 1995, System Operating Procedure 23.205, Revisions 45 and 46, "Residual Heat Removal System," a procedure prescribing an activity affecting quality, was not appropriate to the circumstances. Specifically, multiple sections of the procedure contained incorrect setpoints for residual heat removal minimum flow valve operation.

REASON FOR THE VIOLATION

The reason for the violation was a less than adequate review of engineering documents for impact on operating procedures. After an engineering design change is approved, engineering sends out Procedure/Program Revision Notices (PPRN) to plant work groups and each work group is responsible for identifying changes to procedures in their purview. PPRN's to address the two design changes which resulted in a setpoint change on the RHR minimum flow valve in each division were sent to Operations. The PPRN's were returned to engineering indicating that no procedures needed to be changed when, in fact, SOP 23.205 required changes.

During the implementation phase of the modifications, a field change was issued. The field change resulted in a PPRN being issued that identified a change to SOP 23.205. Although a resulting change was made, the change made to the SOP was incomplete in that a caution statement referring to the spent fuel pool cooling assist mode of RHR was not changed to reflect the new setpoint. Once again, a less than adequate review of the engineering documents against operating procedures was performed.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED

Procedure 23.205 has been revised to fully incorporate the appropriate setpoint for the RHR minimum flow valve. All other changes necessary for proper system operation resulting from this engineering design change have been completed.

Selected PPRN's for recently installed modifications were reviewed. Of the PPRN's reviewed, one was identified that required additional procedure changes that were not originally identified. However, this modification is still in the implementation stage, and therefore, has not been returned to service without the appropriate procedure changes. These procedure changes have now been identified.

Enclosure to
NRC-96-0031
May 3, 1996
Page 4

CORRECTIVE STEPS THAT ARE BEING TAKEN TO AVOID FURTHER VIOLATIONS

Training sessions have been conducted with the groups involved in reviewing engineering documents for potential impact. This training clearly identified expectations and responsibilities for those individuals performing the reviews.

Currently, two Operations personnel are reviewing each PPRN in parallel to assure a complete impact assessment is performed. Furthermore, the PPRN form and the Engineering Conduct Manual have been revised to include organization unit head concurrence with the assessment as a final check that an appropriate assessment was performed. In addition, the Plant Manager has communicated his expectations to members of his management staff regarding procedure and program changes resulting from engineering design changes.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Detroit Edison is currently in full compliance. Actions described above will help ensure continued compliance.

STATEMENT OF VIOLATION [96002-08]

10 CFR Part 50, Appendix B, Criterion V, "Instruction Procedures, and Drawings," requires, in part, that activities affecting quality be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, the following example of [an] inadequate procedure [was] identified:

On February 12, 1996, approved Work Request 000Z961764, a procedure prescribing an activity affecting quality, was not appropriate to the circumstances. The work request was inadequate in that it failed to ensure that the Combustion Turbine Generator Unit 11-1 was returned to service with its battery in an acceptable state of charge.

REASON FOR THE VIOLATION

The reason for this violation is that there was a reliance on the skill of the craft which resulted in the work package not containing sufficient criteria for restoring the Combustion Turbine Generator (CTG) 11-1 to an operable status. The maintenance and operation of CTG 11-1 is performed by Detroit Edison organizations outside Nuclear Generation, in accordance with their standard practices and policies, and in accordance with Fermi 2 procedure MQA10, "Quality Assurance Program Applicability". The Fermi 2 facility requires and is dependent on the skill of the craft and expertise of Peaker Division personnel whenever any type of maintenance activity is performed on CTG 11-1.

A work request was developed to verify proper operation of the CTG 11-1 DC air compressor start logic during a black start condition. This work request was written by Fermi 2 personnel with assistance from Peaker Division personnel, in accordance with Fermi 2 procedures. Based on this, there was an understanding that Peaker Division personnel would play a vital role during the actual implementation of this work.

Previous troubleshooting and analysis performed on February 9, 1996 by Plant Support Engineering identified 98 VDC as a minimum battery voltage at which all DC loads would have to be shut off to prevent further battery drain. Peaker Division personnel were monitoring battery voltage during the evolution on February 12, 1996 and battery voltage and charging current to the batteries after the evolution in accordance with their standard work practices. These Peaker Division personnel were prepared to notify plant personnel if the values observed had not returned to normal. Based on their skill and experience, the Peaker Division personnel were aware of and prepared to restore AC power to the charger if the batteries had fallen to below 98 volts.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED

A calculation of battery voltage and charging current values after this work was completed supports the engineering judgment that this evolution would only have a minor impact on the CTG 11 battery. The CTG 11 battery was below its normal standby charge, but was still at 110-115% of the required capacity after this work was completed and before restoring AC power to the battery charger. Therefore, it was concluded that CTG 11-1 would have been able to perform its required function.

After the compressor start logic operation was verified and prior to exiting the Limiting Condition for Operation (LCO), the Peaker Division personnel monitored the charging current and found that the battery had reached its normal standby charge within an hour after AC power was restored to the charger. Furthermore, the work package was kept at the CTG 11-1 job site until after the battery was verified to be returned to normal charge by Peaker Division personnel. Therefore, CTG 11-1 was not returned to service without the batteries at the required capacity.

CORRECTIVE STEPS THAT HAVE BEEN AND WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

The alarm response procedure, ARP CTG11-BF-2, "MCC AC Undervoltage"; System Operating Procedure 23.324, "Supervisory Control - 120 KV Switchyard and CTG-11 Generators"; and alarm response procedure ARP 11D59, "CTG-11 MCC Undervoltage", have been changed to add guidelines for Operations personnel regarding verification that the CTG 11 battery is charged following the loss of AC power to the CTG 11 battery charger. This will ensure that the CTG 11 battery is charged prior to declaring CTG 11-1 operable. These changes are currently temporary changes against the procedures; however, when the refurbishment of CTG 11-1, currently in progress, is completed, the above considerations will be included as permanent changes to the applicable procedures.

Lessons learned training has been provided to System Engineering personnel on this event and the corresponding corrective actions taken to preclude this from recurring. This training covered the importance of including critical parameters on work requests to ensure the operability of equipment before returning the equipment to service.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Detroit Edison is currently in full compliance. Actions described above will help ensure continued compliance.

STATEMENT OF VIOLATION [96002-04]

Technical Specification 6.8.1 requires, in part, that written procedures be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Contrary to the above:

Item 4.w.(2)(a) of Appendix A of Regulatory Guide 1.33, Revision 2, requires instructions for changing modes of operation of emergency power sources (e.g. diesel generator). System Operating Procedure 23.307, "Emergency Diesel Generator System," section 4.0, "Placing an Emergency Diesel Generator in Standby Mode," step 4.2.11, required closing or verifying closed air supply bleed valves and opening or verify open air receiver outlet valves.

On February 23, 1996, while placing Emergency Diesel Generator No. 14 in standby mode, operators failed to implement System Operating Procedure 23.307, by failing to close or verify closed the air supply bleed valves and failing to open or verify open air receiver outlet valves.

REASON FOR THE VIOLATION

The violation occurred because the individuals involved did not follow procedures. A critique identified that the following were possible breakdowns leading to this violation. While personnel have been trained on the proper method of verification and independent verification, the proper methodology was not used by either of the two operators directly involved in the restoration process. Assumptions were made regarding valve position. Those assumptions were allowed to take the place of procedural requirements. Also, the normal methodology of listing all components out of the standby lineup on the Safety Tagging Record (STR) was not performed in this case. Procedure sections and steps that were seen as routine and possibly not necessary might have been given less importance. Additionally, there existed a lack of self checking in that neither individual thoroughly questioned the way the STR restoration was made up to ensure they understood exactly what the expectations were.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED

Another operator identified the incorrect line-up and corrected it before the Technical Specification Action Statement was exited and Emergency Diesel Generator No. 14 was returned to service.

The operators involved in this event received discipline in accordance with Detroit Edison's Positive Discipline Program. In turn, these operators made presentations to each of the operating shifts. The focus of the presentation was an emphasis that every step in a System Operating Procedure (SOP) or any other procedure requires the same degree of thoroughness as every line item on an STR. This presentation was also provided to other off-shift Operations personnel.

Enclosure to
NRC-96-0031
May 3, 1996
Page 8

CORRECTIVE STEPS THAT HAVE BEEN AND WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

As an interim measure, all changes of state to any device for removal from service for maintenance or restoration to service after maintenance will be listed as an individual step on a STR. These include line-ups that will be performed in accordance with an SOP or any part of the SOP. If restoring a device to service or removing it from service, an operator is now required to perform the steps in accordance with the appropriate SOP and, subsequently, perform the requirements of the STR, whether or not the steps are duplicates of the steps performed in the SOP. Additionally, an emphasis was placed on the requirement that an independent verifier be an individual who is separate from the activities related to establishing the condition or a component position for removal from service for maintenance.

During the last requalification cycle for Licensed Operators, management expectations regarding procedural compliance were emphasized during the Operating Experience portion of the training. The importance of "hands-on" verification and independent verification, rather than relying on visual or audible cues to determine the valve position, was emphasized.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Detroit Edison is currently in full compliance. Actions described above will help ensure continued compliance.

STATEMENT OF VIOLATION [96002-01]

Technical Specification 6.8.1 requires, in part, that written procedures be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Contrary to the above:

Item 4.j of Appendix A of Regulatory Guide 1.33, Revision 2, requires instructions for changing modes of operation of containment systems. System Operating Procedures 23.409, "Thermal Recombiner System," section 5.0, Note (2) states: "For non-emergency operations, the torus flow path should be used."

On February 7, 1996, an operator failed to implement System Operating Procedure 23.409, Section 5.0, Ready Mode, Note (2), in that the division 1 thermal recombinder suction was lined up to the drywell and torus simultaneously in a non-emergency situation.

REASON FOR THE VIOLATION

The cause of this event is personnel error due to inattention to detail, in that a licensed operator did not follow or complete the procedural steps correctly as outlined in the System Operating Procedure (SOP). A contributor to this event was that the SOP procedure steps were not as clear as they could have been in that the procedure did not explicitly preclude establishing simultaneous normal and emergency flow paths from the Drywell and Torus. Details of this event were provided in Licensee Event Report 96-002.

CORRECTIVE STEPS TAKEN AND THE RESULTS ACHIEVED

As described in Reference 3 the Drywell to thermal recombinder suction isolation valves were closed and the Drywell to torus interconnection was eliminated. The Operator involved in this event received discipline in accordance with Detroit Edison's Positive Discipline Program.

CORRECTIVE STEPS THAT WERE TAKEN TO AVOID FURTHER VIOLATIONS

Procedure 23.409 has been enhanced to improve the human factors aspect of using the procedure. These statements will clarify the proper operation of the system for future procedure users.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Detroit Edison is currently in full compliance.