



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

July 25, 2012

Mr. Larry Weber  
Senior Vice President and  
Chief Nuclear Officer  
Indiana Michigan Power Company  
Nuclear Generation Group  
One Cook Place  
Bridgman, MI 49106

**SUBJECT: NOTICE OF ENFORCEMENT DISCRETION FOR INDIANA MICHIGAN  
POWER REGARDING DONALD C. COOK NUCLEAR POWER PLANT,  
UNIT 1 [TAC NO. ME-9099 - NOED NO. 12-3-002 – TECHNICAL  
SPECIFICATION 3.3.2 ENGINEERING SAFETY FEATURE ACTUATION  
SYSTEM INSTRUMENTATION]**

Dear Mr. Weber:

By your letter dated July 23, 2012, you requested that the U.S. Nuclear Regulatory Commission (NRC) exercise discretion to not enforce compliance with the actions required in Technical Specification (TS) 3.3.2, "Engineering Safety Feature Actuation System Instrumentation" Required Actions I.1 and I.2. The letter documented information previously discussed with the NRC in a telephone conference on July 19, 2012, at 3:30 p.m. (All times discussed in this letter refer to Eastern Daylight Time).

On July 19, 2012, at 7:34 a.m. Unit 1 experienced a failure of electrical control power to one of two dump valves for two of four steam generator stop valves (SGSVs). Each SGSV has two dump valves powered from separate power sources, which can receive a signal to open during certain events, which in turn vent steam to close the associated SGSV. Your initial investigation determined that the failure was a result of blown fuses for Train B 250 volt direct current (VDC) control power to the dump valves. Under this condition, the affected stop valves lost one of the two redundant trains necessary to close the SGSVs. However, since the other train of dump valves was operable, closure of the two affected SGSVs would have still been achievable. The other two SGSVs were not affected.

Effective at 7:34 a.m. you entered TS 3.3.2 Conditions B and C. Condition B applied due to one required channel (in Table 3.3.2-1, Function 4a), or train, being inoperable for manual actuation, and it required the restoration of the equipment to operable status within 48 hours. Condition C also applied due to one required channel (in Table 3.3.2-1, Function 4b), or train, being inoperable for automatic operation and it required the restoration of the affected train to operable status within 6 hours. Control Power was restored to one dump valve for one of the SGSVs within the required completion time of 6 hours. However, the condition that led to the blown fuse on Train B of the other SGSV (1-MRV-222) was not corrected within 6 hours. As a result Required Actions I.1 and I.2 were entered on or about 1:34 p.m., requiring shutdown to

Mode 3 by 7:34 p.m. and entry to Mode 4 by 1:34 a.m. the next morning. Unit 1 commenced power reduction at 3:30 p.m. pursuant to TS 3.3.2, Required Actions I.1 and I.2, which required the Unit to be in Mode 3 within 6 hours and Mode 4 within 12 hours, respectively.

You requested that a Notice of Enforcement Discretion (NOED) be granted pursuant to the NRC's policy regarding exercise of discretion for an operating facility, as set forth in Section 3.8 of the NRC's Enforcement Policy, to allow an extension of TS 3.3.2 Required Actions I.1 and I.2 completion times by 24 additional hours (i.e. I.1 completion time extension until July 20, 2012, at 7:34 p.m.; I.2 completion time extension until July 21, 2012 at 1:34 a.m.). Enforcement discretion was requested to provide sufficient time to complete repairs to the second dump valve while the Unit remained in Mode 1.

This letter documents our telephone conversation on July 19, 2012, at 3:30 p.m., when we verbally granted enforcement discretion. We understand that the condition causing the need for this NOED no longer exists and you exited this NOED on July 19, 2012, at 8:30 p.m. The principal NRC staff members who participated in that telephone conference included Gary Shear, Acting Director, Division of Reactor Projects, Region III (RIII); John B. Giessner, Branch Chief, Division of Reactor Projects, RIII; Paul Pelke, Enforcement Specialist, RIII; Laura Kozak, Senior Reactor Analyst, RIII; John Ellegood, D.C. Cook Senior Resident Inspector, RIII; Benny Jose, Senior Reactor Inspector, RIII; Stephanie Coffin, Acting Director, Division of Operating Reactor Licensing (DORL), Nuclear Reactor Regulation (NRR); Steve Frankl, Acting Chief, Plant Licensing Branch 3-1, NRR; Jim Andersen, Chief, Electrical Engineering Branch, NRR; Sheldon Stuchell, Licensing Processes Branch, NRR; See-Meng Wong, PRA Operational Support Branch, NRR; Kristy Bucholtz, Technical Specifications Branch, NRR; Roy Mathew, Electrical Engineering Branch, NRR; and Peter Tam, DC Cook Project Manager, Plant Licensing Branch 3-1, NRR.

Indiana Michigan Power requested this NOED after consideration of the safety significance and potential consequences of extending the TS completion times and operating while replacing the affected equipment which led to Train B of one SGSV being inoperable. This assessment concluded that granting the NOED would result in no net increase in radiological risk to the public. You also stated that the requested NOED met the criteria specified in Section B of the Inspection Manual Part 9900 for an operating plant. This request was based on the avoidance of an undesirable transient caused by the shutdown of the reactor as a result of forcing compliance with TS and thus minimizes potential safety consequences and operational risks associated with plant shutdown. This assessment was independently corroborated by NRC staff.

During the NOED discussion, your staff provided a value of  $3.86 \text{ E-}8$  for the incremental conditional core damage probability (ICCDP) and a value of  $7.37 \text{ E-}9$  for the incremental conditional large early release probability (ICLERP) during the period the NOED would be in effect. In your written submittal, however, you compared the calculated values to the site's maintenance rule threshold for green risk profile ( $1 \text{ E-}6$  and  $1 \text{ E-}7$ , respectively). While this information is correct for the maintenance rule, the basis for our review and granting of the NOED is comparing the aforementioned values to the thresholds provided in Section D.4.a. of the Inspection Manual Part 9900 guidance (ICCDP of  $5 \text{ E-}7$  and ICLERP of  $5 \text{ E-}8$ ). Our guidance provides these values for determining that there is no net increase in risk during the period of

enforcement discretion. The NRC compared the values you provided to those in our guidance and found them acceptable. In addition, during the July 19, 2012, NOED call, your staff provided a general discussion of the cut-sets that were evaluated in accordance with Section D.4.b of the Inspection Manual Part 9900 guidance, but a detailed list was not provided. During our discussion we determined that the general discussion provided sufficient information to support the granting of an NOED. In your letter you provided a more detailed discussion of the cut-sets. The NRC staff reviewed the list of cut-sets provided and found them consistent with the information provided during the July 19, 2012 call.

To further mitigate risk, your staff committed to implement a series of compensatory actions for the duration of the enforcement discretion. These actions included:

- No other work that could jeopardize plant operation, such as alignment changes (except in response to emergent plant equipment failures), balance-of-plant functional testing, or significant switchyard work, would be allowed while the NOED condition existed.
- The Unit's Emergency Diesel Generators (EDGs), Supplemental Diesel Generators (SDGs), and Switchyards would have access prevented, except as needed in response to emergent failures or conditions that developed.
- To the extent practicable and controllable, no other work would be undertaken that could jeopardize Unit operation. No Reactor Protection System testing or maintenance would be performed.
- The other SGSVs, dump valves, AB and CD Battery rooms and chargers, CCV-CD 250 VDC distribution cabinet (i.e, Train A), EDGs, SDGs and switchyard would be treated as "guarded" in accordance with plant procedures.
- No maintenance would be performed on the operable dump valves or associated power supplies.
- No maintenance (other than data gathering for required surveillances) would be performed on DC systems except that was needed to accomplish repairs to the Train B, 250 VDC control power supply.
- The grid conditions would be periodically monitored during the period of enforcement discretion.
- No surveillances that would make equipment inoperable would be performed during the period of enforcement discretion.

On the basis of the staff's evaluation of your request, we have concluded that granting this NOED is consistent with the Enforcement Policy and staff guidance, and has no adverse impact on public health and safety or the environment. Therefore, it is our intention to exercise discretion to not enforce compliance with TS 3.3.2, Required Action I.1, for the period from

L. Weber

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July 19, 2012, at 7:34 p.m. until July 20, 2012, at 7:34 p.m., and I.2 completion time until July 21, 2012, at 1:34 a.m. In addition, as discussed on July 19, 2012, the NRC staff agreed with Indiana Michigan Power's determination that a follow-up TS amendment was not needed because the conditions requiring the requested NOED would be corrected by your staff and were not typically experienced at the site. It should be noted that enforcement discretion was needed for about an hour for I.1, and it was not needed for I.2, as plant repairs were completed before the completion time for the Required Action, with the NOED extension.

As stated in the Enforcement Policy, issuance of an NOED does not change the fact that a violation will occur, nor does it imply that enforcement discretion is being exercised for any violation that may have led to the violation at issue. In each case where the NRC has chosen to issue an NOED, enforcement action will normally be taken for the root causes, to the extent violations were involved, that led to the noncompliance for which enforcement discretion was used.

Sincerely,

***/RA by Kenneth G. O'Brien for/***

Gary L. Shear, Acting Director  
Division of Reactor Projects

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### **See Previous Concurrences**

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Letter to L. Weber from G. Shear dated July 25, 2012.

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