

PUBLIC NOTICE

NRC STAFF PROPOSES TO AMEND OPERATING LICENSE AT THE  
DONALD C. COOK NUCLEAR PLANT, UNIT 2

The U.S. Nuclear Regulatory Commission (NRC or Commission) staff has received an application dated January 24, 2010, from Indiana Michigan Power Company (I&M or the licensee), for an exigent amendment to the operating license for the Donald C. Cook Nuclear Plant, Unit 2 (CNP-2), located in Berrien County, Michigan.

The proposed amendment would revise Technical Specification (TS) 3.6.9, "Distributed Ignition System (DIS)." The DIS is designed to initiate a controlled ignition of hydrogen inside containment via a system of 70 ignitors (two trains of 35 ignitors each). The existing TS requires at least 34 ignitors per train to consider the train operable. The amendment would allow Train B of DIS to be considered operable with two ignitors (i.e., 33 of 35 ignitors) inoperable. The proposed TS modification would be applicable until the fall 2010 refueling outage, or until the unit enters a mode which allows replacement of the affected ignitors without exposing personnel to significant radiation and safety hazards.

On January 14, 2010, the licensee performed surveillance testing in accordance with TS surveillance requirement (SR) 3.6.9.1. The licensee identified that two DIS Train B ignitors were inoperable. With two DIS Train B ignitors inoperable, the licensee entered TS Limiting Condition for Operation (LCO) 3.6.9, Condition A. The required action for this Condition is to restore the inoperable DIS train (i.e., Train B) to operable status within 7 days or perform TS SR 3.6.9.1 on the operable DIS train (i.e., Train A) at least once per 7 days. Since the Train B ignitors cannot be repaired in the current plant condition, the licensee is performing TS SR 3.6.9.1 weekly on Train A.

As discussed in the licensee's application dated January 24, 2010, I&M requested that the proposed amendment be processed by the NRC on an exigent basis in accordance with the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) paragraph 50.91(a)(6). The licensee is basing exigent circumstances on the following: (1) the failure of the two inoperable DIS Train B ignitors on January 14, 2010, could not have been foreseen; (2) repair or identifying the inoperable ignitors cannot be performed due to significant radiation and high temperature conditions within containment; (3) the weekly performance of TS SR 3.6.9.1 on DIS Train A can physically degrade the ignitors and may lead to a unit shutdown; and (4) inoperability of the Train A emergency diesel generator during routine surveillance testing could challenge the need for initiating a unit shutdown. The licensee requested approval of the proposed amendment by February 4, 2010.

The licensee and the NRC staff have evaluated this proposed change with regard to the determination of whether or not a significant hazards consideration is involved. Operation of CNP-2, in accordance with the proposed amendments will not involve a significant increase in the probability or consequences of an accident previously evaluated. The postulated event involving operability of the DIS is a beyond-design basis accident that generates a quantity of hydrogen from the reaction of the fuel cladding with water that is far in excess of the hydrogen release calculated for the limiting design basis accident (DBA). The proposed change will not increase the probability of such an accident because the DIS performs an entirely mitigative function. Except for brief periods of surveillance testing, the DIS is not in use during normal operation. The proposed change will not result in any physical changes to the plant which would affect accident initiators. Those structures, systems, and components (SSCs) involved in the initiation of postulated accidents will not be operated in any different manner. Therefore, the probability of occurrence of a previously evaluated accident will not be significantly increased.

I&M's evaluation has determined that Train B of the DIS will remain capable of performing its intended safety function of initiating controlled ignition of hydrogen resulting from a postulated beyond-design basis accident. I&M's evaluation has demonstrated that propagation of hydrogen burning initiated by ignitors that remain operable will ensure adequate combustion in the regions potentially affected by the two inoperable ignitors. Therefore, continued assurance of containment integrity would be provided following a postulated beyond-design basis accident even if significant quantities of hydrogen were generated. With containment integrity maintained, there would be no increase in radiation releases from such an accident. Additionally, the hydrogen concentration resulting from a DBA can be maintained less than the flammability limit using the hydrogen recombiners. Therefore, the consequences of a previously evaluated accident will not be significantly increased.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed amendments will not create the possibility of a new or different kind of accident from any previously analyzed. The proposed change does not alter the design function or operation of any SSC that may be involved in the initiation of an accident. The DIS will not become the source of a new type of accident. No new accident causal mechanisms will be created. The proposed change does not create new failure mechanisms, malfunctions, or accident initiators. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

The proposed amendment will not involve a significant reduction in a margin of safety. The margin of safety involved with the DIS is that associated with protecting containment integrity from the potentially deleterious effects of a significant hydrogen accumulation following

a beyond-design basis accident. I&M's evaluation has determined that Train B of the DIS will remain capable of performing its intended safety function of initiating controlled ignition of hydrogen resulting from such an accident, thereby assuring that the associated margin of safety for the containment will be maintained. Therefore, there is no significant reduction in a margin of safety as a result of the proposed amendment.

Therefore, the proposed change does not involve a significant reduction in the margin of safety.

Following an initial review of this application, the requested amendments have been evaluated against the standards in 10 CFR 50.92 and the NRC staff has made a proposed (preliminary) determination that the requested amendments involve no significant hazards considerations. The changes do not significantly increase the probability or consequences of any accident previously considered, nor create the possibility of an accident of a different kind, nor significantly decrease any margin of safety.

If the proposed determination that the requested license amendment involves no significant hazards consideration becomes final, the staff will issue the amendments without first offering an opportunity for a public hearing. An opportunity for a hearing will be published in the *Federal Register* at a later date and any hearing request will not delay the effective date of the amendment.

If the staff decides in its final determination that the amendment does involve a significant hazards consideration, a notice of opportunity for a prior hearing will be published in the *Federal Register* and, if a hearing is granted, it will be held before the amendment is issued.

Comments on the proposed determination of no significant hazards consideration may be (1) telephoned to Mr. Robert J. Pascarelli, Chief, Plant Licensing Branch 3-1, by collect call to 301-415-6603, or by facsimile to 301-415-2102; (2) e-mailed to [Robert.Pascarelli@nrc.gov](mailto:Robert.Pascarelli@nrc.gov); or

(3) submitted in writing to the Chief, Rulemaking and Directives Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001. All comments received by 7:30 a.m. on February 4, 2010, will be considered in reaching a final determination. A copy of the application may be examined electronically through the Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room link at the NRC Web site <http://www.nrc.gov/reading-rm/adams.html> and at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov).