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U.S. Nuclear Regulatory Commission
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Monticello Nuclear Generating Plant
Docket 50-263
License No. DPR-22

Reply to Notice of Violation Dated July 27, 2005

Reference: NRC to NMC, "Monticello Nuclear Generating Plant, NRC Integrated Inspection Report 05000263/2005003 and Notice of Violation," dated July 27, 2005.

In the referenced inspection report, the U.S. Nuclear Regulatory Commission (NRC) issued a Severity Level IV Notice of Violation for a failure of the Nuclear Management Company, LLC (NMC) to notify the NRC Operations Center within eight hours of the actuation of certain systems on April 2, 2005, at the Monticello Nuclear Generating Plant in accordance with 10 CFR 50.72(b)(3)(iv)(A).

After further review and evaluation of this event, NMC respectfully disagrees that a violation of the reporting requirements specified in 10 CFR 50.72(b)(3)(iv)(A) occurred. Accordingly, NMC is denying the violation. Enclosure 1, "Reply to the Notice of Violation," explains the basis for our denial of this violation.

This letter contains no new commitments and makes no revisions to existing commitments.

John T. Conway
Site Vice President, Monticello Nuclear Generating Plant
Nuclear Management Company, LLC

Enclosure

cc: Administrator, Region III, USNRC
Project Manager, Monticello, USNRC
Resident Inspector, Monticello, USNRC
Director, Office of Enforcement, USNRC

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REPLY TO THE NOTICE OF VIOLATION

On July 27, 2005, Inspection Report 05000263/2005003 was issued. This inspection report included the following Severity Level IV, Notice of Violation (NOV).

During an NRC inspection conducted from April 1, 2005, through June 30, 2005, a violation of NRC requirements was identified. In accordance with the for [sic] NRC Enforcement Policy the violations [sic] is listed below:

1. Section (b)(3)(iv)(A) of 10 CFR 50.72 requires the licensee notify the NRC Operations Center as soon as practical and in all cases within eight hours for any event or condition that results in a valid actuation of certain specified systems. Contrary to the above, on April 2, 2005, the licensee failed to make a required notification to the NRC when it experienced a valid actuation of the reactor building ventilation isolation system, the A standby gas treatment system, and the A control room emergency filtration train and a partial primary containment group II isolation, systems which were specified under 10 CFR 50.72 as being reportable upon a valid actuation. As of June 30, 2005, the licensee failed to notify the NRC Operations Center, a period in excess of eight hours.

This is a Severity Level IV violation (Supplement I).

RESPONSE

The Nuclear Management Company, LLC (NMC) has reviewed this event against the criteria in 10 CFR 50.72(b)(3)(iv)(A) and (B) and has determined that valid actuations did not occur for the systems in question at the Monticello Nuclear Generating Plant (MNGP) on April 2, 2005.

NMC agrees, and does not dispute, that the essential bus transfer logic for Bus 16 was not properly removed from service, and in accordance with 10 CFR 50.73(a)(2)(iv) timely reported this condition in Licensee Event Report 2005-005-00, "Inadvertent Engineered Safety Function Actuations During Testing," dated June 1, 2005.

I. BASIS FOR DISPUTING THE VIOLATION

10 CFR 50.72(b)(3)(iv)(A) requires a licensee to notify the U.S. Nuclear Regulatory Commission (NRC) Operations Center within eight hours of the occurrence of:

Any event or condition that results in valid actuation of any of the systems listed in paragraph (b)(3)(iv)(B) of this section except when the actuation results from and is part of a pre-planned sequence during testing or reactor operation.

Thus to be reportable, two criteria must be met: at least one of the systems listed in 10 CFR 50.72(b)(3)(iv)(B) must be involved, and a valid actuation of at least one of the systems must occur. A discussion of pertinent systems' operation and the conditions prior to and during the loss-of-power on Bus 16 is provided below. A review against the criteria

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of 10 CFR 50.72(b)(3)(iv)(A) and (B), and NUREG-1022 (Revision 2), "Event Reporting Guidelines 10 CFR 50.72 and 50.73," was performed.

A. SUMMARY OF THE LOSS-OF-POWER ON BUS 16 EVENT

On April 2, 2005, with the reactor shutdown in a refueling outage, a surveillance procedure was being performed for post-maintenance testing after relay replacement. A procedural error resulted in failing to perform steps to re-close test switches to re-power the essential bus transfer (EBT) relays. The EBT logic sensed a loss of Bus 16 voltage and tried to transfer to alternate sources (the 1AR Transformer or 12 Emergency Diesel Generator, both of which had been properly removed from service).

The loss of power on essential safeguards Bus 16 cascaded through the loads served. Power to the 'B' Reactor Protection System (RPS) Bus that supplies the 'B' side Refueling Floor Radiation Monitors and Reactor Building Plenum Radiation Monitors (two separate monitor systems) was lost resulting in the Primary Containment Isolation System (PCIS) logic actuating.

Upon a loss of power the Refueling Floor and Reactor Building Plenum Radiation Monitors register an upscale tripped condition. The radiation monitoring trip outputs are combined in PCIS such that an upscale trip on either side initiates Reactor Building ventilation shutdown, closure of the Secondary Containment isolation dampers, initiation of the Standby Gas Treatment System, initiation of the Control Room Emergency-Filtration Train System, and closure of a select set of Group II primary containment isolation valves. The radiation monitoring systems functioned as designed.

B. DISCUSSION OF SYSTEMS INCLUDED UNDER 10 CFR 50.72(b)(3)(iv)(B)

In order to be considered for reportability as a valid actuation in accordance with 10 CFR 50.72(b)(3)(iv)(A) the system first must be one of the systems listed under 10 CFR 50.72(b)(3)(iv)(B). The NRC stated in the NOV that the initiation of the 'A' Standby Gas Treatment and 'A' Control Room Emergency Filtration Trains, and the partial Primary Containment Group II and Reactor Building ventilation isolations had not been reported as required. Evaluation of these actuations versus the reporting criteria of 10 CFR 50.72(b)(3)(iv)(B) identified:

1. Standby Gas Treatment, Reactor Building Ventilation, and Control Room Emergency Filtration Train Systems

The Standby Gas Treatment, Reactor Building Ventilation and Control Room Emergency Filtration Systems are not included in the systems listed under 10 CFR 50.72(b)(3)(iv)(B). The actuation of these systems, whether valid or invalid, is not reportable under this criterion.

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2. Partial Primary Containment Group II and Reactor Building Ventilation (Secondary Containment Damper) Actuations

The partial Primary Containment Group II and Reactor Building ventilation (Secondary Containment) actuations involve "General containment isolation signals affecting containment isolation valves [or dampers] in more than one system" as specified in 10 CFR 50.72(b)(3)(iv)(B)(2) Item (2). These two actuations are included based upon 10 CFR 50.72(b)(3)(iv)(B)(2). Review against the criteria of 10 CFR 50.72(b)(3)(iv)(A) was performed to determine whether the actuations were valid or invalid.

Therefore, the initiations of the Standby Gas Treatment (SBGT) and Control Room Emergency Filtration (CRV-EFT) Systems were not reportable. The partial Primary Containment Group II and Reactor Building Ventilation Systems (Secondary Containment damper) actuations are included in the group of systems under 10 CFR 50.72(b)(3)(iv)(B).

C. DISCUSSION OF VALID VERSUS INVALID ACTUATIONS

NUREG-1022 describes 'valid signals' as:

... those signals that are initiated in response to actual plant conditions or parameters satisfying the requirements for initiation of the safety function of the system. They do not include those that are the result of other signals. Invalid actuations are, by definition, those that do not meet the criteria for being valid. Thus, invalid actuations include actuations that are not the result of valid signals and are not intentional manual actuations." (NUREG-1022, page 49)

The design basis for the Refueling Floor and Reactor Building Plenum Radiation Monitors is to provide high radiation level inputs to the PCIS logic. As described in the Updated Safety Analysis Report "The trip outputs from the two [radiation] monitoring channels are combined such that one upscale trip" initiates the logic. When the radiation level reaches the trip setpoint the PCIS logic initiates the SBGT System, shuts down the normal Reactor Building ventilation system and closes the Secondary Containment dampers - isolating secondary containment, and closes a select set of Group II primary containment valves - isolating primary containment.

The actual plant condition (or parameter), in this case, is the radiation level detected by the Refueling Floor and Reactor Building Plenum Radiation Monitor sensors. The safety function of the radiation monitors is to provide containment isolation upon sensing high radiation not providing isolation upon a loss of power.

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This correlates precisely with Example 1, "RPS Actuation," in NUREG-1022 on page 50, which states:

The automatic signals were valid because they were generated from the sensor by measurement of an actual physical system parameter that was at its set point.

An actual physical system parameter, i.e., the radiation level detected at the detector (sensor), was not at the detector trip setpoint of 100 mR/hour (specified in Technical Specification Table 3.2.4). The highest radiation level measured at the time of the event by either the Reactor Building Plenum or Refueling Floor Radiation Monitors was less than 2 mR/hour.

NUREG-1022 supports this position, that only signals reflecting the safety function of the system are valid signals. NUREG-1022 on page 49 states, "They [valid signals] do not include those, which are the result of other signals." The partial Primary Containment Group II and Reactor Building ventilation (Secondary Containment damper) actuations resulting from the output of the Refueling Floor and Reactor Building Plenum Radiation Monitor signals were invalid, since the radiation monitors safety function is to detect a change in the radiation level above the trip setpoint at the detector locations. Consequently, an event resulting in the valid actuation of a system listed under 10 CFR 50.72(b)(3)(iv)(B) did not occur.

In conclusion, the actual plant conditions did not satisfy the requirements for the initiation of the design basis safety function for any of the systems/components that received an actuation signal, because the radiation level measured at the detectors locations did not exceed the trip setpoint of 100 mR/hour. A loss of power condition to the Reactor Building Plenum and Refueling Floor Radiation Monitors does not meet the criteria for a valid actuation signal.

D. REVIEW OF AN ANALOGOUS EXAMPLE FROM NUREG-1022

A directly analogous example is presented in Example 7, "Actuation During Maintenance Activity," on page 52 of NUREG-1022. It states:

At a BWR, a maintenance activity was under way involving placement of a jumper to avoid unintended actuations. ... During the event, a loss of continuity did occur and the actuations occurred, involving isolation, standby gas treatment start, closing of some valves in the primary containment isolation system (recirculation pump seal mini-purge valve, nitrogen supply to drywell valve, and containment atmospheric monitoring valve).

The event is not reportable under § 50.72(b)(2)(iv) or (b)(3)(iv) because the actuations were not valid. It is reportable under § 50.73(a)(2)(iv) because the actuations were not listed as (and were not) definitely expected to occur.

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E. CONCLUSION

A review of the systems that actuated determined that none of these systems responded to a valid actuation signal pursuant to 10 CFR 50.72(b)(2)(iv). Therefore, the actuation of these systems did not represent conditions that were reportable pursuant to 10 CFR 50.72(b)(2)(iv) or 10 CFR 50.72(b)(3)(iv).

II. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

Not Applicable

III. CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

Not Applicable

IV. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance has been, and continues to be maintained, since the date of the event on April 2, 2005.