



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

**REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET SW SUITE 23T85  
ATLANTA, GEORGIA 30303-8931**

**June 15, 2001**

EA-01-152

Duke Energy Corporation  
ATTN: Mr. H. B. Barron  
Vice President  
McGuire Nuclear Station  
12700 Hagers Ferry Road  
Huntersville, NC 28078-8985

**SUBJECT: MCGUIRE NUCLEAR STATION - NRC INSPECTION REPORT 50-369/00-05  
AND 50-370/00-05**

Dear Mr. Barron:

Thank you for your response of October 25, 2000, to our inspection report issued on October 4, 2000, concerning activities conducted at your facility. We have examined your response and found that it meets the requirements of 10 CFR 2.201.

In your response, you denied the Non-cited Violation based on your belief that the inspection report incorrectly characterizes a non-repetitive failure of a single piece of equipment as a violation. You also stated that (1) "an isolated failure of a single piece of equipment that did not result in a loss of system function should not be treated as a violation of regulatory requirements, absent some extenuating circumstances," (2) equipment redundancy existed as well as the ability to compensate for the equipment failure with guards had it become necessary, and (3) the equipment failure was entered into your corrective action program.

After careful consideration of the bases for your denial of the violation, we have concluded, for the reasons presented in the enclosure to this letter, that the violation occurred as stated in the inspection report. We noted, at the time of our inspection, that the violation was entered into your corrective action program and was an issue of low safety significance. This issue was treated as a Non-cited Violation in our inspection report. Therefore, no further response to the violation is necessary.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document

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Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

**/RA Harold Christensen for:/**

Charles A. Casto, Director  
Division of Reactor Safety

Docket Nos. 50-369, 50-370  
License Nos. NPF-9, NPF-17

Enclosure: Evaluation and Conclusion

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(cc w/encl cont'd - See page 3)

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(\*) = SEE PREVIOUS PAGE FOR CONCURRENCE

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## EVALUATION AND CONCLUSION

On October 4, 2000, a Non-cited Violation (NCV) was identified during a routine NRC inspection. McGuire Nuclear Station denied the NCV by letter of October 25, 2000, stating that the inspection report incorrectly characterized a non-repetitive failure of a single piece of equipment as a violation. The NRC's evaluation and conclusion regarding the licensee's arguments are as follows:

### Restatement of Violation

License Amendment No. 195, Paragraph E, dated September 22, 2000, states that Duke Energy/Corporation shall fully implement and maintain in effect all provisions of the Commission-approved nuclear security and contingency, and guard training and qualification plans.

Paragraph 2.0, of the Physical Security Plan (PSP), dated April 3, 2000, Revision 12, states that station security procedures are established and maintained which provide detailed information to the security force on implementation of plan performance objectives and specific plan commitments.

Paragraph 8.2, of the PSP, dated April 3, 2000, Revision 12, Closed Circuit Television (CCTV) states that fixed CCTV is installed in accordance with manufacturer specifications for alarm assessment and shall be maintained operable for observation of a potential adversary prior to penetration of exterior protected area barriers. Electronic switching is provided to direct the alarm station operator's attention to the scene of interest.

Procedure EXAO-12, Central Alarm Station (CAS) and Secondary Alarm Station (SAS) Operations, dated September 11, 2000, Revision 58, states that the CAS shall be the primary controlling point for alarm acknowledgment and response.

On September 12, 2000, the fixed CCTV failed to provide the CAS (the primary controlling point) operator with the capability to observe an adversary prior to penetration of exterior protected area barriers. This violation is being treated as a NCV, consistent with Section VI.A of the NRC Enforcement Policy. It is identified as NCV 50-369, 370/00-05-01: Failure of the Electronic Switching to Provide the Central Alarm Station Operator with the Capability to Properly Assess Potential Penetrations at the Perimeter Prior to Individuals Gaining Access to the Protected Area. This violation is in the licensee's corrective action program as Problem Investigation Process (PIP) M-00-03462. This issue was determined to have very low safety significance (Green) given the non-predictable basis of the single equipment failures and the fact that there was no evidence that the vulnerabilities had been exploited.

### Summary of Licensee's Response to Violation

Section II of the licensee's denial was titled, "Factual Basis for Denial." In that section, the licensee did not dispute the following essential facts of the inspection report:

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1. The McGuire Security Plan is incorporated into the Operating License by License Condition and security plans are regulatory requirements,
2. The inspection report correctly identified requirements for fixed CCTV and electronic switching in the PSP, and
3. The electronic call-up for the CCTV failed during the inspection.

In this section, the licensee disagreed with the inspection report characterization of the consequences of the failure. In particular, the licensee stated, "the inspection report does not fully describe the redundancy provided in the CCTV switching system or testing that was performed on a routine basis." By not accounting for the manual switching capability in the CAS, the licensee contends that the NRC Inspection Report inappropriately characterized the switching failure as a total loss of system function and that the CAS operator was capable of using manual switching to observe adversaries prior to entry.

Section III of the licensee's denial is titled, "Regulatory Basis of Denial." In part A of the section titled, Secondary Alarm Station Automatic Switching, the licensee contends that the switching failure does not constitute a violation of regulatory requirements. The licensee indicated that NRC did not fully credit the presence of the SAS. The licensee also stated that the "Inspection Report does not provide a regulatory basis which would indicate that Duke can not take credit for the automatic switching capability provided in the SAS." Absent a regulatory basis to the contrary, the licensee contends that such a failure of automatic switching in the CAS alone would not be a violation of the PSP as incorporated into the License Condition.

In part B of Section III titled, Compensatory Actions for Equipment Failure, the licensee states, "a loss of CCTV functionality would not be a violation of the security plan if it was properly compensated" and that the inspection report "notes that immediate compensatory actions were taken." The licensee also stated that, "Duke would agree that in certain cases, IDS equipment failures may constitute violations of other regulatory requirements" and that "Duke has reviewed the past testing data associated with the switching device for the CAS and found this to be an isolated non-repetitive failure." The licensee provided information to show that a testing procedure "has been performed weekly for a number of years and a review back to January 2000 did not reveal another single failure of the video switching device." Additionally, the licensee stated that the "procedure was performed on September 10, 2000, approximately two days before the failure during the inspection."

#### NRC Evaluation of Licensee's Response

We have reviewed your denial of the Non-cited Violation and concluded that:

1. A review of the PSP did not identify any reference to the use of manual switching as a means of meeting the requirements for assessing perimeter alarms as defined in the PSP. It was also noted in paragraph 8.2.1 of the PSP, that the compensatory measures for CCTV (loss or degraded operation) do not include manual switching.

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2. At the time of the inspection, the CAS had been designated as the primary control point and was responsible for alarm assessments. On September 12, 2000, during the NRC evaluation, the licensee's capability to observe simulated intrusions in the CAS was not in accordance with the criteria of the PSP in that the fixed CCTV as installed was not maintained operable for observation of a potential adversary prior to penetration of exterior protected areas, and that systems did not automatically function to direct the alarm station operator's attention to the scene of interest.
3. During inspection, the primary assessment system (equipment) failed to meet the PSP requirement on 11 separate occasions, and the manual switching being used by the CAS operator was not adequate to ensure observation of a potential adversary prior to penetration of exterior protected areas. The specific areas of failures are documented in inspection report 50-369/00-05 and 50-370/00-05, dated October 4, 2000.
4. Although management was or should have been aware of the licensee identified problems with the security system prior to NRC testing, they elected to retain the CAS as the primary controlling point instead of designating the SAS as the primary control point to meet the Security Plan requirement for electronic switching.
5. At no time during the system testing did the CAS operator turn over station responsibility to the SAS operator or state that he would do so. He stated at one point that he would send a response officer to evaluate the cause of the alarm.

#### NRC Conclusion

For the above reasons, the NRC staff concludes that the violation occurred as stated.

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