

April 4, 2000

MEMORANDUM TO: Arthur T. Howell III, Director  
Division of Reactor Safety  
Region IV

FROM: Suzanne Black, Deputy Director */RA/*  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

SUBJECT: RESPONSE TO THE REGION IV TASK INTERFACE  
AGREEMENT OF SEPTEMBER 27, 1999 (99TIA021) –  
EVALUATION OF WATERFORD STEAM ELECTRIC STATION,  
UNIT 3, DENIAL OF A VIOLATION REGARDING AUDITOR  
INDEPENDENCE (TAC NO. MA6664)

By letter dated September 27, 1999, subject as above, you requested that the Office of Nuclear Reactor Regulation (NRR) review and provide guidance concerning the denial of a Waterford Steam Electric Station, Unit 3 (Waterford), violation cited in Nuclear Regulatory Commission (the Commission or NRC) Inspection Report 50-382/99-01. The Notice of Violation (NOV 50-382/9901-01) cited that "...Waterford Audits SA-98-025.1 and SA-98-036.1, dated September 16, 1998, which reviewed the Waterford access authorization and fitness-for-duty programs, were conducted by individuals who were not independent of the program management being audited." In particular, Entergy Operations, Inc. (the licensee), used audit specialists from other licensee-owned sites who, in the conduct of their normal duties, were directly accountable to the corporate officer responsible for the management and implementation of the audited program. The licensee's denial concluded that "...the assignment of responsibilities for individuals performing audits and the selection of individuals which participate as audit team members is in compliance with 10 CFR 26.80(b) and Regulatory Guide 5.66." In addition, the licensee's response stated that "10 CFR 73.56(g)(1) and 10 CFR 75.56(g)(2) required that each licensee conduct audits of the access authorization program, but does not explicitly identify auditor independence."

The NRR staff concurs that the auditors in question were not functionally independent of program management and implementation. The duration of an assignment to audit functions is not material and, accordingly, was not addressed by the Commission in creating the requirement. The objective is that audits are to be unbiased by functional links between auditors and the supervisors involved in management of the audited programs. Region IV correctly questioned compliance in that the programs being audited and the auditors themselves were under the licensee's Corporate Director of Security, i.e., under the person "responsible for implementing the program." The staff separately notes that access authorization is required to be part of the licensee's Physical Security Plan (see 10 CFR 73.56(a)) and, considering the wording and intent of the "independent" requirement, it is clear that the Commission did not intend that a plant's physical security be diminished by a lesser audit requirement for access authorization functions.

In addition, both 10 CFR 26.80(b) and 10 CFR 73.55(g)(4) define independent in equivalent words (e.g., done by persons independent of the audited program's management and of persons with direct responsibility for the audited program's implementation).

Please see the enclosure for NRR's response. Be advised that this response is confined to the audits associated with the two regulations cited and not for Appendix B audits.

Enclosure: As stated

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Please see the enclosure for NRR's response. Be advised that this response is confined to the audits associated with the two regulations cited and not for Appendix B audits.

Enclosure: As stated

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**OFFICE OF NUCLEAR REACTOR REGULATION RESPONSE TO  
REGION IV TASK INTERFACE AGREEMENT  
(99TIA021)**

**Question 1:**

Is the licensee's interpretation of the requirements and the term "independent" consistent with the requirements?

**Discussion Point 1 - Independence:**

The licensee's interpretation of the requirements and the term "independent" are not consistent with either the Physical Security Plan commitments or with the requirements in 10 CFR Part 73, "Physical Protection of Plants and Materials," 10 CFR Part 26, "Fitness for Duty Programs," and Regulatory Guide 5.66, "Access Authorization Program for Nuclear Power Plants."

The requirements in both 10 CFR 26.80(b) and 10 CFR 73.55(g)(4) are essentially identical and state: "by individuals...independent of both...program management and personnel...directly responsible for implementation of the...program."

The Nuclear Regulatory Commission's (the Commission or NRC) intent as to functional independence was specifically addressed in *Federal Register* Notice 56 FR 19004, published April 25, 1991, "Access Authorization Program for Nuclear Power Plants...Audits," which states in part:

"The Commission believes that an independent evaluation is a reasonable requirement which could be met by a utility's quality assurance if the persons conducting the evaluation are qualified and **functionally independent of those responsible for implementing the Access Authorization Program. What constitutes the criteria for an audit need not be specified in the rule.**" [emphasis added].

The Office of Nuclear Reactor Regulation (NRR) staff believes that an auditor's independence may be compromised if the auditor's performance is appraised, reviewed, or in any way influenced by managers responsible for the program being audited, even if the auditor is temporarily assigned to another organization for the duration of the audit. The Commission clearly established that its intent was to ensure that persons doing program evaluations are "functionally independent" of those responsible for implementing the program being audited.

The NRR staff finds that the licensee, Entergy Operations, Inc., allowed auditors to participate in program audits while continuing to be accountable to the audited program's management. Thus, the licensee failed to ensure the functional independence required by the regulation. The NRR staff further understands that the auditors' performance appraisal and review were under the audited program's management during the entire period of audit preparation, performance, and report writing activities, i.e., not just during the audit itself. In other words, the individual's assignment to the audit team was not accompanied by a change to the performance appraisal process for the individuals. The management responsible for the program being audited continued to be responsible for appraising the performance of the persons doing the audit. The NRR staff believes this situation allows the possibility of an actual or perceived "chilling effect" environment for the auditors.

**Discussion Point 2 – Program Effectiveness:**

Waterford Steam Electric Station's, Unit 3 (W3SES), Physical Security Plan commitment states in part that:

Entergy [Operations, Inc.] quality assurance, corporate security personnel independent of W3SES security management and supervision, or outside consultants are used to conduct the audit.

Regulatory Guide 5.66, states in part that:

The program given in NUMARC 89-01 ("Industry Guidelines for Nuclear Power Plant Access Authorization Programs"), August 1989, is acceptable to the NRC staff for meeting the provisions of 10 CFR 73.56, subject to the following: ...2. Licensees who adopt this regulatory guide should make the following statement in their certification to the NRC that they have implemented 10 CFR 73.56: All elements of Regulatory Guide 5.66 have been implemented to satisfy the requirements of 10 CFR 73.56. Licensees who adopt positions different from this regulatory guide should identify these differences in their certification to the NRC. Further, positions different from the ones in the regulatory guide that would decrease the effectiveness of the access authorization program should be submitted to the NRC in accordance with 10 CFR 50.90.

Section 16.0 ("Audits of Fitness-for-Duty Programs"), June 7, 1989, *Federal Register*, Part II, 54 FR 24487, regarding 10 CFR Parts 2 and 26, "Fitness-For-Duty Programs," states in part:

The NRC intentionally has used the word "effectiveness" throughout the rule to ensure that all affected parties maintain an overall concern for the rule's objectives rather than focusing on documentation of program compliance with "the letter of the law...." Although compliance is important, the Commission's over-riding concern is an answer to the question, "Is the program working?" Because individuals who possess the requisite skills to conduct fitness-for-duty program audits are likely to be relatively rare and their services needed only infrequently, licensees will probably find it necessary to contract for appropriate audit staff rather than staffing an entire audit team from the licensee's Quality Assurance Program. Current wording in the rule is intended to recognize and encourage such an approach to staffing program audits.

**Conclusion:**

The licensee's interpretation of the term "independent" is not consistent with the requirements, expectations, or intent of the Commission. The auditor was not functionally independent of those responsible for implementing the audited programs.

Further, the NRR staff review suggests that W3SES may have failed to conform to its security plan program by not ensuring that all members of its physical security program audit teams are functionally independent of those implementing and managing the audited programs. This non-conformance may constitute a decrease in the effectiveness of the security plan pursuant to 10 CFR 50.54(p) without the required NRC approval.

**Question 2:**

What is a reasonable time frame for an individual to be assigned to an audit team led by a member of an organization that is independent of the audited organization (e.g., quality assurance) if that individual works directly for the personnel directly responsible for access authorization/fitness-for-duty program implementation and, upon the completion of the detail, will return to work for the manager of the program being audited? Does the licensee's independence position extend to only a 1- or 2-week detail? If not, what length of a detail would be considered acceptable relative to demonstrating independence?

**Discussion:**

The amount of time that individuals are assigned to audit functions is not relevant to the regulatory requirements and the Commission's intent that audits be unbiased and separate from implied, perceived, or actual management influence. Instead, the central issue is whether the auditors can freely evaluate and form conclusions as to the effectiveness and regulatory compliance of the program being audited. The quality of a licensee's audits is determined by the skills and knowledge of the auditors and their independence from outside influences, including implied or perceived management influence. This can be achieved by assigning auditors to a functionally independent group which conducts audits and documents appraisals of the auditor's performance. Alternately, outside consultants could be used for the audits, as stated in the W3SES Physical Security Plan (see "**Discussion Point 2**" under "**Question 1**," above).

In response to the specific question, the NRR staff does not believe a 1- to 2-week detail to the quality assurance group for the purpose of auditing one's own organization is an adequate period of time to ensure an auditor's independence or objectivity. Instead, the staff believes that an assignment this brief might create a "chilling effect" environment for the employee. The NRR staff does not believe that any length of detail would be acceptable, because the concept of a detail is that the person will eventually return to their regular job. After which, if the audit was not favorable, the employee might be subjected to (or perceive) a negative environment where management could make detrimental job assignments or performance appraisals.

**Conclusion:**

There are no regulations or guidance that equate auditor independence to the duration of the person's assignment to an audit team. Instead, the Commission equated auditor independence to a functional separation between the audit activity and possible influence by the management responsible for the audited program. This approach precludes short-term assignments to audit teams and the subsequent return to an organization under the management responsible for the audited program. Note that a short-term assignment to an audit team, followed by a permanent (i.e., long-term) reassignment to an organization not under the management responsible for the audited program is acceptable.

The functional independence requirement indicates a concern about adequate objectivity where the auditor is accountable to persons responsible for management or implementation of the audited program. This concern also exists if the auditors are on short-duration loans (details)

from audited organizations. As noted previously, the staff also believes that such short-term assignments will not adequately preclude creating a "chilling effect" environment for the employee.

**Question 3:**

Is an auditor independent if he/she has or is likely to audit work that he/she completed during outage work at the plant for which that plant program is being audited?

**Discussion:**

It is reasonable to conclude that a person can not objectively evaluate work they had done previously, including during an outage at the same power plant. The 10 CFR Part 73 requirement for security program evaluation specifically requires individuals evaluating the security program to be independent from both security program management and from personnel who have direct responsibility for implementation of the security program. The outage work done previously by the person now conducting the audit can readily be taken as part of the implementation process for the program being audited.

**Conclusion:**

The NRR staff does not believe that any auditor will have adequate objectivity or independence to evaluate activities or programs that they worked on.

Principal Contributor: J. Petrosino

Date: April 4, 2000