



~~*** SAFEGUARDS INFORMATION ***~~

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

February 1, 2001

Mr. Oliver D. Kingsley
President, Nuclear Generation Group
and Chief Nuclear Officer
Commonwealth Edison Company
Executive Towers West III
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: NRC OPERATIONAL SAFEGUARDS RESPONSE EVALUATION
(INSPECTION REPORT NOs. 50-254/2000-201 and 50-265/2000-201)

Dear Mr. Kingsley:

During May 1 through May 4, 2000, the NRC's Office of Nuclear Reactor Regulation (NRR) conducted an Operational Safeguards Response Evaluation (OSRE) at the Quad Cities Nuclear Power Station, Units 1 and 2. An exit meeting was held at the NRC Region III Office with members of your staff on August 15, 2000, to summarize and discuss the findings of the OSRE. The enclosed report presents the scope and results of this inspection.

The primary purpose of the OSRE was to assess your ability to respond to an external threat. The OSRE team also assessed the interaction between operations and security in establishing priorities for protection of equipment and the protective strategies used. The OSRE included a safety/safeguards interface review to ensure that safeguards measures did not adversely impact safe operation of the station.

In evaluating the risk significance of the findings by using the Physical Protection Significance Determination Process (PPSDP) and its interrelation with the Reactor Safety Significance Determination Process (RSSDP), the staff originally determined that the failure to protect the target sets in two scenarios represented findings of at least substantial (yellow) or even high safety significance (red). However, the scenarios which were used in the exercises on May 2 and May 3, 2000, presented the staff with a risk assessment challenge that was unique to the PPSDP. The challenge in applying the RSSDP to security evaluations is primarily driven by two factors, including: (a) an elevated RSSDP entry point as a result of initial equipment and system damage that is assumed during a force-on-force exercise, and (b) the lack of an assigned initiating event probability for the occurrence of an attack by the design basis threat (DBT) defined in 10 CFR 73.1. These factors affect the two variables which are used to enter the RSSDP and invalidate its use for this application.

Therefore, the staff intends to use interim guidance for implementing the PPSDP with respect to force-on-force exercises, to divorce it from the RSSDP. The interim guidance in the revised

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PPSDP would reflect the following significance determinations for findings developed in force-on-force exercises:

Green (very low safety significance) - A finding in which the licensee has failed to adequately perform a limited portion of the protective strategy or a protective strategy deficiency that is of very low safety significance. The performance failure could result in the loss of a single target set. The performance failure is isolated in nature, such as deficiencies associated with specific response actions, not associated with procedures or training deficiencies. This finding is not considered predictable and repeatable.

White (low to moderate safety significance) - A finding in which the licensee has failed to adequately perform limited portions of the protective strategy or a protective strategy deficiency that results in the loss of at least one target set and is of low to moderate safety significance. The performance failure is not isolated in nature, such as limited procedure and training issues. The finding is considered potentially predictable or occasionally repeatable, but not a broad programmatic problem.

Yellow (substantial safety significance) - A finding in which the licensee has failed to adequately perform multiple portions of their protective strategy or a protective strategy deficiency that results in the loss of at least one target set and is of substantial safety significance. The performance failure demonstrates significant single or multiple strategy implementation problems or design deficiencies. The finding is considered generally predictable, repeatable and a broad programmatic problem.

Red (high safety significance) - A finding in which the licensee has repeatedly failed to adequately perform multiple portions of their protective strategy or a protective strategy deficiency that results in the loss of multiple target sets and is of high safety significance. The performance failure demonstrates significant strategy implementation problems and design deficiencies, relating to multiple security program elements. The finding is considered consistently predictable, actually repeated and is a significant reduction in safety margin.

In accordance with this interim guidance, the findings of the Quad Cities OSRE appear to have low to moderate safety significance as described in Section 4.3 of this report, because there were losses of target sets in two scenarios due to specific deficiencies associated with procedures, training and the protective strategy. These findings, while potentially repeatable, were not considered a broad programmatic problem. The deficiencies identified in the Quad Cities OSRE related to the failure of the licensee to adequately interpose members of the response force between vital areas and the mock adversary and, therefore, the licensee failed to intercept the mock adversaries and prevent them from simulating damage to systems and equipment identified in target sets. While these deficiencies did not represent a broad programmatic problem with the licensee's response strategy, the findings were assessed as potentially safety significant and preliminarily determined to be White, an issue with some increased importance to safety, which may require additional NRC inspection.

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The staff notes that there were some issues identified in the Quad Cities OSRE related to the adequacy of controller conduct and actions taken in the scenario play. In addition, issues were raised regarding the development and selection of target sets for the two exercises with deficiencies. These issues were reviewed by the staff to determine whether they would have an impact on the conclusions. The staff determined that the target sets, controller conduct, and actions taken in the scenarios did not negate the findings. In addition, after reviewing the licensee's time line and evaluation of the significance of the exercise results, the staff was unable to validate conclusively the licensee's assertion that the chronology of the events demonstrated that the scenarios would not have resulted in core damage.

During the exit meeting, you advised the NRC on the compensatory and corrective actions that you have taken and plan to take. Those actions, which you assured were entered into your corrective action program, are discussed in the body of the attached inspection report.

Before the NRC makes a final decision on this matter, we are providing you an opportunity to request a Regulatory Conference where you would be able to provide your perspectives on the significance of the findings and the bases for your position. If you choose to request a Regulatory Conference, we encourage you to submit your evaluation and any differences with the NRC evaluation at least one week prior to the conference in an effort to make the conference more efficient and effective. If a conference is held, it will be closed to public observation due to the Safeguards Information that will be discussed, in accordance with 10 CFR 73.21. However, the NRC will issue a press release to announce the conference.

Please contact Ms. Vonna Ordaz at (301) 415-2147, within seven days of the date of this letter to notify the NRC of your intentions. If we have not heard from you within 10 days, we will continue with our significance determination, and you will be advised by separate correspondence of the results of our deliberations on this matter.

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

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The enclosure, which contains safeguards information of a type specified in 10 CFR 73.21, will not be placed in the Public Document Room and must be protected against unauthorized disclosure.

Sincerely,



Glenn M. Tracy, Chief
Operator Licensing, Human Performance
and Plant Support Branch
Division of Inspection Program Management
Office of Nuclear Reactor Regulation

Docket Nos: 50-254; 50-265
License Nos: DPR-29; DPR-30

Enclosures:

1. Inspection Report 50-254/00201 & 50-265/00201
(Operational Safeguards Response Evaluation)
2. Correspondence with Commonwealth Edison

cc w/o enclosure: (See next page)

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