



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

SUPPLEMENTAL SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SAFEGUARDS ASPECTS OF SURRY INDIVIDUAL PLANT EXAMINATION

SURRY POWER STATION, UNITS 1 AND 2

DOCKET NOS. 50-280 AND 50-281

1.0 INTRODUCTION

By letters dated January 30 and April 20, 1992, Virginia Electric and Power Company (the licensee) responded to the staff's request for additional information, addressing the safeguards aspects of Surry Individual Plant Examination (IPE) Internal Flooding Issues. Additionally, the staff conducted an Operational Safeguards Response Evaluation (OSRE) on January 27-30, 1992. Results of this evaluation are discussed below.

2.0 EVALUATION

The licensee's responses to each of the staff's recommendations are evaluated below.

2.1 Measures Protecting Against an Insider

The licensee's measures to protect against an insider were discussed in letters dated January 30 and April 20, 1992. The safety equipment which could cause the internal flooding identified in the IPE, if sabotaged, is located within Surry's protected area. All personnel who have unescorted access to the site protected area are subject to the licensee's Access Authorization Program and Fitness for Duty Program to meet the requirements of 10 CFR 73.56 and Part 26, respectively. The licensee also searches all personnel, packages and vehicles that enter the protected area for items which could be used for radiological sabotage, in accordance with 10 CFR 73.55(d)(1)-(4). In accordance with 73.55(a), the licensee has implemented several additional measures in lieu of specifying the turbine building as a vital area. These include leak detection and annunciation equipment, both security and nonsecurity patrols of the turbine building, and a procedural requirement that security be notified prior to all authorized work in the area. In accordance with 73.55(a), the staff has determined that these measures provide the same or a greater contribution to protection against an insider as specifying the turbine building as a vital area.

2.2 Measures Protecting Against an External Adversary

The licensee's January 30, 1992 response also confirmed that Surry's defensive strategy for protecting against an external adversary included protecting against flooding and that security personnel and response weapons would be assigned to appropriate locations to interdict an external adversary. This

was evaluated by the staff during the Operational Safeguards Response Evaluation (OSRE) conducted on January 27-30, 1992.

The OSRE team conducted four table-top drills with licensee contingency response team leaders. These drills simulated overt external assaults. The team also observed four licensee contingency drills during which licensee personnel played the role of violent, well-armed adversaries. The IPE-identified equipment was analyzed as a target set in two of the table-top drills and one of the actual licensee contingency drills. The team also evaluated the licensee's weapons mix, weapons and contingency training, and use of deadly force.

The drills indicated a possible weakness in the licensee's protective strategy for protecting the equipment identified in the IPE. The strategy did not appear to fully address an assault originating at two particular locations on the protected area perimeter. In the April 20, 1992 response, the licensee confirmed that Surry has since installed additional barriers at these two locations to provide the same delay time and exposure to an intruder there as at the rest of the perimeter. These additional barriers have resolved the team's concern regarding an external adversary.

3.0 CONCLUSION

Based on the above considerations, the staff concludes that concerns related to sabotage which could lead to the type of flooding identified in the IPE have been adequately addressed by the licensee.

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