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

January 15, 1993

The Honorable Bob Graham, Chairman
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Enclosed are answers to questions requested by your staff concerning the Turkey Point Nuclear Power Plant.

If I can be of further assistance, please let me know.

Sincerely,

Dennis K. Rathbun, Director
Office of Congressional Affairs

Enclosures:
As Stated

cc: Senator Alan K. Simpson

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QUESTION 1. It is alleged that the failure to perform the license-required surveillances to verify the operability of the pressure-relief system used to prevent possible vessel cracking constitutes a serious violation of the plant's technical specifications. It cannot be considered to be but a mere deviation as the NRC has chosen to characterize it.

ANSWER.

The licensee's action to depart from the technical specifications (TS)-required surveillance tests was not a failure, but rather a conscious emergency decision and action consistent with the provisions of 10 CFR 50.54(x). The conduct of surveillances during normal and off-normal conditions is required and expected. However, 10 CFR 50.54(x) allows a licensee to "....take reasonable action that departs from a license condition or a technical specification (contained in a license issued under this part) in an emergency when this action is immediately needed to protect the public health and safety and no action consistent with the license conditions and technical specifications that can provide adequate or equivalent protection is immediately apparent." The licensee is expected to exercise good judgment and minimize possible upset situations where feasible. Further, 10 CFR 50.54(y) requires that the "licensee's action permitted by paragraph (x) of this [10 CFR 50.54] section shall be approved, as a minimum, by a licensed senior operator prior to taking the action."

During August 24 - 25, 1992, after the Turkey Point units were brought to a hot shutdown, the licensee, under the provisions of 10 CFR 50.54(x), decided not to enter the containment and hook up the equipment required to perform the necessary surveillance test procedure. The licensee took this action because the normal lighting in the containment was not available due to loss of offsite power and portable lighting would have been required to perform this surveillance. Entry into containment without normal lighting carried too high a risk of potential human error and injuries, or of resulting in an undesirable plant transient. At the time, the safety importance of the overpressure mitigation system (OMS) was substantially reduced from its design basis because the unit was not in a water-solid condition during or following the hurricane. Also, the high pressure safety injection (HPSI) flow path to the reactor coolant system (RCS) was isolated, as required by the TS under such conditions. The licensee successfully accomplished the control room portion of testing the OMS (i.e., cycling of the power-operated relief valves (PORVs)) within 24 hours of the shutdown of the units. The nitrogen portion of the OMS was tested and declared operational by September 7, 1992, when stable offsite power was restored and normal lighting was available inside containment. The nitrogen is a backup to the instrument air system which normally operates the PORVs. The instrument air system remained operational throughout the entire event.

QUESTION 1. (continued)

The NRC staff reviewed the licensee's actions taken during the emergency condition to depart from the TS surveillance noted above and determined that they were immediately needed to protect the public health and safety and no other adequate or equivalent action consistent with license conditions or TS was immediately apparent. The NRC staff also found the licensee's actions appropriate on the basis that the departure from TS was approved by a licensed senior reactor operator prior to implementation and the licensee took necessary actions to recover from the departure from TS as soon as practicable following the hurricane (i.e., departed from TS only to the extent necessary).

The NRC staff evaluation of this event is documented in Inspection Report 50-250,251/92-20, which was provided to you earlier.

QUESTION 2. Florida Power and Light management failed to perform critical start-up surveillance tests on the reactor coolant system and in the feedwater equipment, leading to an inability to cool down the primary system after the inevitable manual or automatic reactor trip that followed the loss of feedwater from main or nuclear-safety-related auxiliary feedwater and residual heat removal sources.

ANSWER.

The Turkey Point technical specifications (TS) require that each emergency core cooling system (ECCS) component and flow path and the standby feedwater pumps be demonstrated to be operable at least monthly while the units are in Modes 1, 2 or 3. On September 29, 1992, with Unit 4 in Mode 2, the licensee discovered that, contrary to these TS requirements, ECCS pump and piping venting and the standby feedwater pump operability demonstration had not been performed prior to entry into Mode 3. ECCS venting had been last performed on August 7, 1992 and standby feedwater pump operability had been last demonstrated on August 5, 1992.

In response to the discovery of these missed surveillances, the licensee satisfactorily completed them promptly and demonstrated that both the ECCS and the non-safety-related standby feedwater pumps were operable. Further, the licensee returned Unit 4 to Mode 3 and satisfactorily verified that all other required surveillances had been performed. This was independently verified by

the NRC resident inspectors. During this time the normal feedwater and safety-related auxiliary feedwater remained available. In addition, ECCS pump and piping venting (high head safety injection pump readiness test) showed no evidence of air when venting the piping or pump casing. The licensee also walked down the residual heat removal (RHR) and safety injection systems to verify valve alignment. Prior to entry into Mode 4, cooling of the reactor coolant system (RCS) was provided by an RHR pump which ran normally. It is important to note that there was no reactor trip, nor was there an inability to cool the primary system under any required condition as a result of these missed surveillances as alleged.

The licensee attributed the cause of this event to personnel error, in that the surveillance due dates were improperly changed in the computer, and has implemented corrective measures to require supervisory review and approval of all changes to surveillance dates in the computer. The NRC staff reviewed the licensee's event analyses and actions and determined that the missed surveillances did not result in any health and safety concern and that the licensee's corrective actions were satisfactory. In accordance with NRC enforcement policy, however, a non-cited violation was issued for the licensee's failure to perform TS-required surveillances within the specified time-frames. The NRC staff evaluation is documented in Inspection Report 50-250, 251/92-20, which was provided to you earlier.

QUESTION 3. On October 5, 1992, with the unit in cold shutdown, the Overpressure Mitigation System was erroneously actuated, with the spurious opening of power operated relief valves, the decreased primary pressure increasing the risk of a spurious safety injection.

ANSWER.

On October 5, 1992, with Unit 4 in cold shutdown, the licensee was performing an overpressure r igation system (OMS) nitrogen backup leak and functional test. The test requires preparation of the primary coolant loop such as to allow opening of the power-operated relief valves (PORVs) without depressurization of the reactor coolant system (RCS) and to provide a closure signal to the residual heat removal (RHR) system suction valves. The test is accomplished by introducing a simulated high pressure signal to the primary coolant loop instrumentation being tested and verifying that the loop instrumentation operates as designed. In performing the test, licensee personnel erroneously proceeded to apply the simulated high pressure signal to a backup instrumentation loop instead of the primary loop. The backup is a parallel loop which is identical in operation and configuration to the primary loop. Since the backup loop was not prepared for the test, application of the test pressure resulted in a slight depressurization of the RCS, approximately 12 psig. The simulated high RCS pressure signal caused a suction valve in the RHR system to close. This resulted in a brief loss of RHR cooling and a 1

degree F increase in the RCS temperature. After the event, the PORV was closed and the RHR system was returned to normal operation in a timely manner. No high system pressure actually occurred as a result of the inadvertent actuation of the PORV, and the OMS and RHR systems functioned as expected. With the plant in cold shutdown at approximately 350 psig, a spurious safety injection (SI) would not have occurred because, by procedure, the SI signal was blocked and the SI flow path was isolated. Further, although spurious safety injections should be avoided, the systems are designed for such events and, should a SI have occurred, this would not have posed a health and safety concern. The licensee successfully completed the test and has implemented appropriate corrective actions to prevent recurrence of inadvertent activation of the OMS.

The NRC staff evaluation of this event is documented in Inspection Report 50-250,251/92-24, which was provided to you earlier. As noted in the inspection report, a non-cited violation was issued, in accordance with NRC enforcement policy, for the licensee's failure to follow procedures, which resulted in the inadvertent opening of a PORV.

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