

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the Matter of

FLORIDA POWER AND LIGHT COMPANY  
(Turkey Point, Units 3 and 4)

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Docket Nos. 50-250 and 50-251  
License Nos. DPR-31 and DPR-41  
EA 86-38

ORDER IMPOSING CIVIL MONETARY PENALTY

I

Florida Power and Light Company (the licensee) is the holder of Operating License Nos. DPR-31 and DPR-41 (the licenses) issued by the Nuclear Regulatory Commission (the Commission/NRC) on July 19, 1972 and April 10, 1973, respectively. The licenses authorize the licensee to operate the Turkey Point Units 3 and 4 in accordance with conditions specified therein.

II

A safety inspection of the licensee's activities under the licenses was conducted by the NRC from January 15-16, 1986. As a result of this inspection, it appeared that the licensee had not conducted its activities in full compliance with NRC requirements. A Notice of Violation and Proposed Imposition of Civil Penalty (NOV) was served upon the licensee by letter dated April 28, 1986. The NOV stated the nature of the violations, the provisions of the NRC's requirements that the licensee had violated, and the amount of the civil penalty proposed for the violations. The licensee responded to the NOV on May 28, 1986.

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III

After consideration of the licensee's response and the statements of facts, explanations, and arguments for mitigation or remission of the proposed civil penalty contained therein, as set forth in the Appendix to this Order, the Director, Office of Inspection and Enforcement, has determined that the violations identified in the Notice of Violation and Proposed Imposition of Civil Penalty were properly classified at Severity Level III but that the \$50,000 civil penalty should be mitigated by 50 percent based on the licensee's extensive corrective actions.

IV

In view of the foregoing and pursuant to Section 234 of the Atomic Energy Act of 1954, as amended, 42 USC 2282, PL 96-295, and 10 CFR 2.205, IT IS HEREBY ORDERED THAT:

The licensee pay a civil penalty in the amount of Twenty-Five Thousand Dollars (\$25,000) within thirty days of the date of this Order by check, draft, or money order payable to the Treasurer of the United States and mailed to the Director, Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

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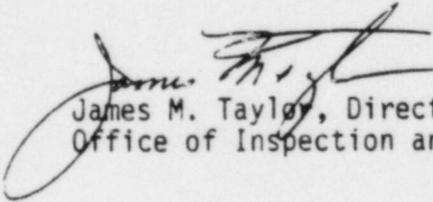
The licensee may, within thirty days of the date of the Order, request a hearing. A request for a hearing shall be addressed to the Director, Office of

Inspection and Enforcement at the above address. A copy of the hearing request shall also be sent to the Assistant General Counsel for Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. Upon failure of the licensee to request a hearing within thirty days of the date of this Order, the provisions of this Order shall be effective without further proceedings. If payment has not been made by that time, the matter may be referred to the Attorney General for collection.

In the event the licensee requests a hearing as provided above, the issues to be considered at such hearing shall be:

- (a) whether the licensee violated NRC requirements as set forth in the Notice of Violation and Proposed Imposition of Civil Penalty; and
- (b) whether on the basis of such violations this Order should be sustained.

FOR THE NUCLEAR REGULATORY COMMISSION

  
James M. Taylor, Director  
Office of Inspection and Enforcement

Dated at Bethesda, Maryland  
this 4<sup>th</sup> day of October 1986

## APPENDIX

### STAFF ASSESSMENT OF LICENSEE RESPONSE

On April 28, 1986, a Notice of Violation and Proposed Imposition of Civil Penalty (NOV) was issued for several violations of NRC requirements. Florida Power and Light Company's response to the NOV was provided in a letter dated May 28, 1986. In its response, the licensee denies the violations. In addition, the licensee provides reasons as to why, if the Commission determines that the violations did occur, the penalty should be mitigated. Provided below are: (1) a restatement of each violation, (2) a summary of the licensee's comments on each violation, (3) the NRC's response to each of the licensee's comments, and (4) the NRC's conclusion.

#### A. Violation A

10 CFR 19.12 requires that all individuals working in or frequenting any portion of a restricted area shall be instructed in precautions or procedures to minimize their exposure and in the purposes and functions of protective devices employed.

Contrary to the above, instructions given to a worker who entered the Traversing Incore Probe (TIP) drive area of Unit 3 containment on January 8, 1986 with a radiation survey instrument with which he was to assess the radiation hazards that may be present did not include methods of detecting instrument failures and actions to be taken if the instrument was suspected of failure. The individual remained in the TIP drive area for 5 minutes and was unaware that the instrument was not responding properly because of the high radiation levels in the area.

#### Licensee Comments Regarding Violation A

The second paragraph of Violation A of EA 86-38 states that the instructions given to the I&C technician who entered the TIP drive area of Unit 3 containment did not include methods of detecting instrument failure and actions to be taken if the instrument was suspected of failure. It notes that he remained in the TIP drive area for five minutes unaware that the instrument was not responding properly. The implication of this statement is that the instructions he received about precautions or procedures to minimize exposure and for the purposes and functions of protective devices were inadequate to meet the requirements of 10 CFR 19.12. FPL does not contend that the I&C technician's instructions expressly included detailed methods of detecting failures of the specific radiation survey meter he was using. Rather, the licensee contends that he had received other and wholly adequate training and instructions to minimize his exposure and training in the purpose and function of the protective device employed. This included training and testing in the following areas:

- (a) Technical Specification requirements for survey meters in high radiation areas.
- (b) Pre-use inspection and operation of survey meter.
- (c) Calculation of staytime.

- (d) Correct sequence for selecting survey instrument ranges when entering an unknown radiation field.
- (e) Interpretation of survey meter readings for all ranges selected.
- (f) Requirement to exit the area when unusual conditions are observed (including the requirement to leave the area and notify HP if significant increases in radiation levels exist from previous entry).
- (g) Individual responsibilities as stated in FPL's Plant Safety Rules.
- (h) Compliance with procedures, RWP requirements, HP verbal instructions, barricades and postings.

The licensee claims that the I&C technician was well qualified in radiological awareness in that he had been adequately trained concerning his responsibilities to comply with RWP requirements, postings, and health physics instructions. The I&C technician had attended three qualification classes in radiological training since March 1984. He successfully completed the courses (last course September 20, 1985) with grades well above average. The radiological training course is based on INPO/Industry Standards. Also, the technician had performed this work before and was aware of the radiation levels associated with in-core detectors.

The licensee also contends that the radiation survey meter was issued to the I&C technician to comply with Technical Specification (TS) requirements for entering containment which was posted as a high radiation area. The meter was not issued for him to assess the radiation hazards associated with the withdrawal of incore detectors. In addition to the normal roving HP technician in the area, another HP technician was specifically assigned to cover the work and assess the radiation hazard, using a high range survey instrument. After the first entry, the Health Physics shift supervisor (HPSS) briefed the I&C technician on the job requirements if additional work was needed. The HPSS introduced the I&C technician to the HP technician assigned to provide job coverage. A pre-job briefing took place between the I&C technician, the HPSS, and the assigned HP technician. This included the radiation levels associated with the in-core detectors. Accordingly, it is clear that the instructions received by the I&C technician more than adequately covered the precautions and procedures required to minimize exposure as well as the purpose and functions of the protective devices he was using.

#### NRC Response

Workers entering a high radiation area should have a general knowledge of the radiation levels expected in the area and specific actions to take if significant changes in radiological conditions occur. When interviewed by the inspector, the I&C technician stated that he was not aware of the higher radiation levels associated with the TIP drive work. Radiation survey instruments are principally issued for workers to detect changes in work area radiation levels. It is the NRC's position that training on the use of the instrument provided in accordance with TS requirements also must include methods of detecting instrument failure. As indicated in the licensee's response, specific training on detecting instrument failure was not included in the technician's training. The licensee's training also did not address the actions individuals are to take if an instrument is suspected of not

functioning properly. As a result, the I&C technician failed to recognize that the instrument malfunctioned when the radiation levels exceeded the upper limits of the instrument. Additionally, during an interview with the subject I&C technician, the technician stated that although he had performed this task several times in the past, he was not aware that the radiation levels would be so high. The I&C technician also stated that he was introduced to the Health Physics technician who was to provide job coverage, but that a pre-job briefing did not take place.

B. Violation B:

Technical Specification 6.8.1 requires that procedures be established, implemented, and maintained consistent with Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Regulatory Guide 1.33, Appendix A, Revision 2, February 1978, requires procedures for radiation protection, maintenance, and operation of nuclear instrument systems.

1. Procedure 190.19, Control of Maintenance on Nuclear Safety Related and Fire Protection Systems, Paragraph 8.3, requires thorough documentation of disassembly/troubleshooting on plant work orders (PWOs). When all discrepancies and problems have been identified, work is to be stopped and the foreman/supervisor is required to clearly define the problem and corrective actions on the PWO in a step-by-step format.

Contrary to the above, on January 8, 1986:

- a. An Instrument and Control (I&C) technical failed to thoroughly document the disassembly and troubleshooting of the Unit 3 TIP drive on the PWO.
  - b. An I&C technician failed to stop work when the discrepancies and problems outlined on the PWO had been identified and performed work outside the scope of the instructions of the PWO.
  - c. The I&C Foreman failed to clearly define the problem and corrective action on the PWO in a step-by-step format.
2. Procedure 12407.2, Incore Flux Detector Drive Mechanism and Detector Replacement, requires that health physics perform a thorough survey after the detector has been fully withdrawn, that two persons be present at all times while performing maintenance inside containment, and that workers not exceed the exposure limits established by health physics on the radiation work permit.

Contrary to the above, on January 8, 1986:

- a. A survey of the Unit 3 TIP drive area was not performed by health physics after the TIP was withdrawn from the reactor core.
- b. Two persons were not present during the I&C technician's second containment entry to perform maintenance on the "A" TIP drive.

- c. The I&C technician failed to keep his exposure within limits established by the radiation work permit.
3. Procedure 12404.1, Normal Operation of Incore Moveable Detector System, requires that Nuclear Plant Operations and Health Physics Operations be notified before the operation of the incore detector.

Contrary to the above, on January 8, 1986, Health Physics Operations was not notified before the operation of the incore detector.

#### Licensee General Comments Regarding Violation B

Violation B states that "Technical Specification 6.8.1 requires that procedures be established, implemented, and maintained consistent with Appendix A to Regulatory Guide 1.33, Revision 2, February 1978." It then refers to three procedures specified in that Regulatory Guide and enumerates one or more instances of failure to comply with each of those procedures. FPL submits that each instance of such failure occurred (in one instance the I&C technician did comply with the procedure), not as a result of a breakdown in the health physics or maintenance programs but as a result of the deliberate failure of the I&C technician to comply with the requirements.

#### NRC Response

As acknowledged in the licensee's response, licensees are held responsible for the acts of its employees. They also are responsible for the safety of employees. Although Florida Power and Light stated that the violations were the result of deliberate acts of the I&C technician, the NRC believes that at least two other individuals had the opportunity to take action which could have led to the exercise of adequate radiological controls. Specifically, a second I&C technician was in the control room and participated in the movement of the TIPs. This technician failed to ensure that HP Operations was notified prior to the operation of the TIPs as required by Procedure 12404.1. In addition, the Senior Nuclear Watch Engineer was aware that the TIPs were being moved and took no action to determine if proper notifications had been made.

#### Licensee Comments Regarding Violation B.1.a

Violation B.1.a states that the I&C technician "failed to thoroughly document the disassembly and troubleshooting of the Unit 3 TIP drive on the PWO." Actually, however, and in contrast to his violation of the other significant procedural requirements, the I&C technician completely documented his action on Attachment 1 of O-GMI-102.1 for PWO #8404. In fact, that documentation provided important information disclosing his violation of those other requirements which lead to the disciplinary action taken against him.

#### NRC Response

The I&C technician failed to complete Attachment 2 of procedure O-GM-102.1 outlining the statement of repairs he had made on the TIP drive.

Licensee Comments Regarding Violation B.2

Violation B.2.a. and b. state that a survey of the Unit #3 TIP drive area was not performed by health physics and that two persons were not present during the I&C technician's second containment entry. Again, however, steps 4.3 and 9.1.2 make it clear that each of these precautions are required, but again, the unilateral decision by the I&C technician to proceed with what he apparently considered to be a quick repair after he was unable to locate a Health Physics technician within containment, made these violations inevitable. The failure of the I&C technician to keep his exposure within the limits of the RWP, referred to in Finding B.2.c., was also an obvious consequence of that decision.

NRC Response

Although Florida Power and Light stated that these violations were the result of the deliberate acts of the I&C technician, the NRC believes that at least two other individuals had the opportunity to take action which could have led to the exercise of adequate radiological controls. Specifically, a second I&C technician was in the control room and participated in the movement of the TIPs. His responsibility was to withdraw the TIP so that it could be re-zeroed by the I&C technician present in containment. This technician failed to ensure that HP Operations was notified prior to the operation of the TIPs as required by Procedure 12404.1. In addition, the Senior Nuclear Watch Engineer was aware that the TIPs were being moved and took no action to determine if proper notifications had been made. Moreover, the I&C supervisor who assigned the two technicians, one of whom was to withdraw the TIP, should have taken overt action to ensure that proper identifications were made prior to beginning work. It should also be noted that the second I&C technician failed to notify HP that the TIP drive would be operated.

Licensee Comments Regarding Violation B.3

The failure to notify Health Physics Operations before operating the incore detector, referred to in Violation B.3., was, similarly, the inevitable consequence of the I&C technician's decision to go ahead and make the repair despite the explicit instructions to the contrary in PWO #8404 (Procedure O-GM1-102.1).

NRC Response

At the time of the inspection, the inspector learned that a second I&C technician was present in the control room. His responsibility was to withdraw the TIP so that it could be re-zeroed by the I&C technician present in containment. The I&C supervisor who assigned the two technicians, one of whom was to withdraw the TIP, should have taken overt action to ensure that proper identifications were made prior to beginning work. It should also be noted that the second I&C technician failed to notify HP that the TIP drive would be operated.

C. Licensee Additional Arguments for MitigationLicensee Comments

The licensee contends that the five mitigating factors addressed in 10 CFR Part 2, Appendix C call for mitigation of the civil penalty. The licensee states (1) the event was reported upon its discovery even though it was not required to be reported, (2) the event was dissimilar to the October 14, 1983 event and corrective actions for that problem were effective, (3) prompt corrective action was taken, and (4) the licensee had no prior notice of the employee's willful action.

NRC Response

Regarding mitigation or remission of the civil penalty, the mitigation and escalation factors addressed in the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1985) were considered in the staff's determination of the proposed civil penalty. The NRC considered increasing the base civil penalty amount because of the similarity of this most recent event to the 1983 incident and to incidents against which the NRC previously has cautioned all licensees to take preventive measures (e.g., Information notice 82-51 "Overexposure in Reactor Cavities," December 1982). However, because FP&L reported the event upon its discovery, even though it was not required to be reported, and has apparently taken extensive corrective actions, the NRC decided not to escalate the base civil penalty. Further, the NRC does not consider the fact that the licensee had no prior notice of the employee's willful action to be an appropriate basis for mitigating the civil penalty.

This incident and the October 14, 1983 incident are similar because both involved failure to adhere to procedures in high radiation areas. Adherence to procedures forms a basic framework for providing effective, consistent radiological controls for work in high radiation areas. Short of providing direct, continuous health physics coverage for each and every task, these procedures serve as the formal mechanism for initiating necessary communications between various plant workers and the health physics support group. This communication results in appropriate radiological support for maintenance and surveillance activities. Bypassing these procedures and thus failing to comply with the radiological precautions in them seriously weakens the health physics control program established to protect the workers. It is the licensee's responsibility to ensure that these procedures are adhered to. However, in view of the licensee's extensive corrective actions which included re-instructing the entire plant staff of the need to follow radiation control procedures; taking disciplinary action against the involved individual and his supervisor; tagging out the flux mapper system power supply to the Health Physics Supervisor; and prohibiting individuals working under a radiation work permit requiring health physics coverage to enter containment without notifying the health physics shift supervisor and obtaining his authorization, we have determined that 50 percent mitigation of the penalty is appropriate.

NRC Conclusion

The NRC has determined that the violations occurred as stated in the Notice of Violation and Proposed Imposition of Civil Penalty, that the violations were correctly categorized as a Severity Level III problem, and that the licensee has provided a sufficient basis for a 50 percent reduction in the proposed \$50,000 civil penalty based on the licensee's extensive corrective action. Accordingly, a civil penalty in the amount of Twenty-Five Thousand Dollars (\$25,000) is imposed.