



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA ST., N.W., SUITE 3100  
 ATLANTA, GEORGIA 30303

Report No. 50-302/79-15

Licensee: Florida Power Corporation  
 P. O. Box 14042, Mail Stop C-4  
 St. Petersburg, Florida 33733

Facility Name: Crystal River Unit No. 3

Docket No. 50-302

License No. DPR-72

Inspection at Crystal River Site near Crystal River, Florida

Inspector: G. R. Jenkins  
 for R. W. Zawadoski

5/25/79  
 Date Signed

Approved by: G. R. Jenkins  
 G. R. Jenkins, Acting Section Chief, FF&MS Branch

5/25/79  
 Date Signed

SUMMARY

Inspection on May 7-11, 1979.

Areas Inspected

This routine unannounced inspection involved 32 inspector-hours onsite in the areas of facility tours, radiation work permits, external radiation exposure control, exposure review, posting and control, training and qualifications, respiratory protection program, surveys, airborne radioactivity areas, bioassays and solid waste shipments.

Results

Of the eleven areas inspected, no apparent items of noncompliance or deviations were identified in nine areas; two apparent items of noncompliance were found in two areas (Infraction - failure to prepare procedures for identifying containers of radioactive material (79-15-01), paragraph 4; Infraction - shipment of solid wastes (79-15-02), paragraph 14).

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## DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*G. P. Beatty, Jr., Nuclear Plant Manager
- \*J. Cooper, Jr., Nuclear Compliance Engineer
- \*J. R. Wright, Chemical and Radiation Protection Engineer
- \*J. L. Harrison, Assistant Chemical and Radiation Protection Engineer
- \*G. H. Ruzsala, Supervisor, Radioactive Waste Management
- \*G. D. Perkins, Health Physics Supervisor
- \*R. E. Fuller, Plant Engineer
- \*G. M. Williams, Nuclear Compliance Plant Engineer
- \*G. Holtz, Chem Rad

Other persons contacted included six licensee mechanics and ten contractor mechanics.

\*Attended exit interview.

### 2. Exit Interview

The inspection scope and findings were summarized on May 11, 1979 with those persons indicated in Paragraph 1 above. Items discussed included the items of noncompliance regarding procedures for labeling of stored material onsite and shipping of solid waste in appropriate containers. These items were acknowledged by the Plant Manager. Two unresolved items were also discussed.

### 3. Licensee Action on Previous Inspection Findings

Not inspected.

### 4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed below.

- a. (Open) Unresolved Item (79-15-03) Exit From the Radiation Control Area. During periods when the garage door from the waste drumming area in the Auxiliary Building is open, the potential exists for an individual to exit the RCA without the benefit of frisking. Ingress is prevented by security guards, but egress is contingent upon the astuteness of the chem rad technician directing other operations outside the door.

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- b. (Open) Unresolved Item (79-15-04) Chemical Releases In the Auxiliary Building. Technical Specifications require laboratory testing of charcoal absorbents in the Auxiliary Building Ventilation System following a chemical release or painting, but do not quantify the amount or type. The use of small amounts of any chemical in the radiochemistry laboratory in the Auxiliary Building could place the ventilation system in the inoperable status.

## 5. Facility Tours

- a. The inspector toured portions of the Radiation Controlled Area (RCA) on each day of the inspection and toured containment on May 8 and 10. The inspector commented favorably on housekeeping inside containment and in the Auxiliary Building. The inspector performed random radiation level surveys during these tours.
- b. While touring the Auxiliary Building on various days during the inspection, the inspector noted several areas where bagged materials of radioactive material were being stored. Accompanied by a licensee representative, the inspector observed one storage area where tools and equipment from the previous outage were being stored. Licensee representatives estimated that the material had been stored in its present location for a period of at least six months. The inspector noted that some items were not bagged at all, some were bagged in open bags, some were double bagged and a few bags were marked with black indellable markings identifying the contents and the radiation hazard inside the container. Radiation levels near unmarked, unlabeled open bags exceeded 10 mrem/hr as confirmed by licensee measurements. The inspector further observed that there were no procedures for bagging and labeling materials for storage within the RCA. The inspector informed licensee rperesentatives that their Technical Specification 6.11 requires that "Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and that 10 CFR 20.203(f) requires that each container of licensed material shall bear a durable, clearly visible label identifying the radioactive contents" and further the required label "shall bear the radiation caution symbol and the words 'CAUTION, RADIOACTIVE MATERIAL' or 'DANGER, RADIOACTIVE MATERIAL'. It shall also provide sufficient information to permit individuals handling or using the containers, or working in the vicinity thereof, to take precautions to avoid or minimize exposures". "As appropriate, the information will include radiation levels, kinds of material, estimate of activity, date for which activity is estimated, mass enrichment, etc."

The inspector informed licensee representatives that failure to have a procedure which takes into account the labeling requirements of 10 CFR Part 20 was an item of noncompliance (79-15-01).

6. Radiation Work Permits (RWPs)

The inspector selected RWPs posted at the entrance to the Radiation Control Area (RCA). The inspector selected records from the file "Terminated RWPs" for the period January 1 through May 5, 1979. The inspector observed a Health Physics Shift Supervisor discussing with maintenance personnel the radiation safety requirements for specific work and issuing RWPs. The inspector toured the Auxiliary Building and Unit 3 containment and observed the implementation of RWP requirements for selected operations. No items of non-compliance or deviations were observed by the inspector.

7. External Radiation Exposure Control

- a. The inspector observed the wearing of TLD badges and pocket chambers by workers during tours of the RCA. The inspector discussed the control and monitoring of radiation exposure with operators, RPM and licensee representatives and had no further questions.
- b. The inspector asked licensee representatives how radiation exposures were maintained below the limits established in 10 CFR 20.101. Licensee representatives stated that the exposure of each individual working in the Radiation Controlled Area (RCA) is updated with pocket dosimeters information. The information is posted on the bulletin board near the change out area in the RCA. The information is presented by groups, e.g., health physics, instrumentation and control, maintenance, operations nuclear, electrical, visitors and sub-contractors. The inspector noted the posting of the current radiation exposure report in the RCA, noted workers consulting the list, noted foremen consulting the list, and had no further questions.

8. Exposure Review

The inspector examined computer printouts of individual whole body and skin exposures for calendar year 1978. The licensee is required by 10 CFR 20.101(b)(3) to have on file a Form NRC-4 for each person who has exceeded the exposure limits of 10 CFR 20.101(a). The inspector examined records of those individuals whose yearly exposures indicated a potential for quarterly exposures in excess of the limits specified in 10 CFR 20.101(a) and verified that NRC-4 forms were included.

9. Posting and Control

a. Posting

The inspector observed the posting on bulletin boards throughout the plant of the notices and reports required by 10 CFR 19.11.

b. Warning Signs

The inspector toured the Radiation Control Area (RCA) and observed the posting of warning signs and the locking of access points to certain

areas. The inspector took radiation level readings at selected locations and requested that air samples be taken at selected locations to assure that areas were posted and locked as required by 10 CFR 20.203 (c)(1) and Technical Specification 6.13, respectively.

c. Radiation Level Surveys

The inspector discussed the radiation level survey program with licensee representatives. The inspector accompanied technicians and observed them making radiation level surveys. The inspector made confirmatory surveys of radiation levels. The inspector examined selected records of radiation level surveys inside Unit 3 containment and RCA for the period January 1 through May 5, 1979. The inspector had no further questions.

10. Training and Qualifications

Technical Specification 6.3.1 states that "each member of the facility staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions." Section 4.5.2, ANSI N18.1-1971, states that technicians in responsible positions shall have a minimum of two years of working experience in their speciality, and that personnel should have a minimum of one year of related technical training in addition to their experience. A licensee representative stated that all shifts were assigned an H.P. supervisor with more than two years experience. The inspector examined various personnel files of members of the health physics staff as well as a number of contract health physics technicians hired for the refueling outage. No items of noncompliance or deviations were observed.

11. Respiratory Protection Program

By review of records, observations, and discussions with licensee representatives, an inspector evaluated the program for air sampling, bioassay, engineering controls, MPC-hour controls, respirator medical evaluation, training, fitting, operational testing, maintenance, issuance controls, and determined that the respiratory protection program appeared to be in compliance with 10 CFR 20.103.

12. Surveys

- a. The licensee is required by 10 CFR 20.201(b) to perform such surveys as may be necessary to comply with regulations. The inspector accompanied by a licensee representative performed an independent contamination survey of the decay heat pits. Twenty-one swipes were taken and counted. The inspector had no further questions.
- b. The licensee is required by 10 CFR 20.401(b) to maintain records showing the results of the surveys. The inspector examined the surveys for the first quarter of calendar year 1979 and had no further questions.

13. Airborne Radioactivity Areas

The inspector reviewed the records of airborne radioactivity levels. 10 CFR 20.203(f) requires that each airborne radioactivity area be conspicuously posted with a sign bearing the radiation caution symbol and the words "CAUTION, AIRBORNE RADIOACTIVITY AREA". The inspector observed that all identified airborne radiation areas were properly marked and had no further questions.

14. Bioassays

Discussions with licensee representatives and examination of urinalysis and whole body counting results for selected individuals for the first quarter of 1979 revealed that the licensee had established a bioassay program as required by 10 CFR 20.103. Records for this period verified that body burdens of the most probable radionuclides for these individuals were well below maximum permissible body burdens. The inspector had no further questions regarding the licensee's bioassay program.

15. Solid Waste Shipments

The inspector reviewed the licensee's records for shipments of solid wastes from the site for the period September 1978 to May 1979. The records revealed that on March 21, 1979, the licensee made a shipment, numbered 79-21 #1 and #2, of spent reactor coolant letdown pre-filters containing 276 Curies and 92 Curies respectively in shipping cask bearing a certificate of compliance number 9081. The inspector informed the licensee representatives that 10 CFR 71.12.b.ii requires that the licensee "complies with the terms of the ... certificate," and further, condition 5.b of the certificate of compliance dated June 5, 1978, and in effect on the date of shipment, number 9081, limits the contents of the cask used to either "solid metals" or "neutron sources in special form." and that the shipment of filters with radioactive sludge on them could not be shipped in the cask used. This is an item of noncompliance (79-15-02).