



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

AUG 14 1984

Report No.: 50-302/84-24

Licensee: Florida Power Corporation
 3201 34th Street, South
 St. Petersburg, FL 33733

Docket No.: 50-302

License No.: DPR-72

Facility Name: Crystal River 3

Inspection Date: July 30 - August 3, 1984

Inspection at Crystal River site near Crystal River, Florida

Inspector: T. R. Collins 8/13/84
 T. R. Collins Date Signed

Approved by: G. R. Jenkins 8/13/84
 G. R. Jenkins, Section Chief Date Signed
 Division of Radiation Safety and Safeguards

SUMMARY

Areas Inspected

This routine, unannounced inspection involved 32 inspector-hours on site during regular hours inspecting: Internal and External Exposure Control; Radiation Work Permit Program; Health Physics Training and Qualifications; Respiratory Protection Program; Quality Assurance Surveillance Program; ALARA Program; Posting, Labeling, and Control of Radiological Areas; Routine and Special Radiation Surveys; and Inspector Followup Items.

Results

No violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *G. L. Boldt, Plant Operations Manager
- *P. J. Skramstad, Chemical and Radiation Superintendent
- *M. M. Siapno, Health Physics Supervisor
- *S. D. Man-field, Nuclear Compliance Supervisor
- P. Elsberry, Training Supervisor
- V. Hernandez, Quality Assurance Supervisor
- S. Robinson, Nuclear Waste Superintendent
- K. Williams,

Other licensee employees contacted included four technicians, two operators, two mechanics, and two office personnel.

NRC Resident Inspector

T. F. Stetka

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on August 3, 1984, with those persons indicated in paragraph 1 above.

3. Training and Qualification (83723)

Technical Specification 6.3.1 requires that each member of the facility staff meet or exceed the minimum qualification of ANSI N18.1-1971 for comparable positions, except for the Chemical Radiation Superintendent who shall meet or exceed the qualification of Regulatory Guide 1.8, September 1975.

Paragraph 4.5.2 of ANSI N18.1 states that technicians in responsible positions shall have a minimum of two years of working experience in their specialty. The inspector reviewed the experience and training records for selected health physics technicians currently working at the station. The inspector discussed radiological controls for specific jobs with three health physics technicians. The inspector observed one health physics technician during implementation of radiological controls for selected activities.

Regulatory Guide 1.8, September 1975, requires the Radiation Protection Manager to have a bachelor's degree or the equivalent in a science or engineering subject, including some formal training in radiation protection and at least five years of professional experience in applied radiation protection. At least three years of the professional experience should be in applied radiation protection work in a nuclear facility dealing with radiological problems similar to those encountered in nuclear power plants.

The inspector reviewed the qualifications of the newly appointed Chemical and Radiation Superintendent and discussed the qualifications with licensee management and the individual.

The inspector reviewed changes in the licensee's training policies, goals, program and methods, related to radiation protection, radioactive material control and plant chemistry, discussed the changes with licensee representatives and verified that the changes should not adversely affect the licensee's program.

Technical Specification 6.4.1 states that a retraining and replacement training program for the facility staff shall be in accordance with ANSI N18.1-1971. Paragraph 5.5 of ANSI N18.1 states that a training program shall be established which maintains the proficiency of the operating organization through periodic training exercises, instruction periods and reviews.

Plant procedures TDP-303 and 305 establishes the training/retraining program for Chemistry and Health Physics personnel.

The inspector discussed the replacement training and refresher training program for Chemistry and Health Physics personnel with licensee representatives and reviewed selected training records.

No violations or deviations were identified.

4. External Exposure Control and Personal Dosimetry (83724)

10 CFR 20.101 specifies the applicable radiation dose standards. The inspector reviewed the computer printouts (NRC Form 5 equivalent) for the period of January to June 1984, and verified that the radiation doses recorded for plant personnel were well within the quarterly limits of 20.101(a).

10 CFR 20.101(b)(3) requires the licensee to determine an individual's accumulated occupational dose to the whole body on an NRC Form 4 or equivalent record prior to permitting the individual to exceed the limits of 20.101(a). The inspector reviewed selected occupational exposure histories for individuals who exceeded the values in 10 CFR 20.101(a). The exposure histories were being completed and maintained as required by 10 CFR 20.102.

10 CFR 20.202 requires each licensee to supply appropriate personnel monitoring equipment to specific individuals and require the use of such equipment.

The inspector reviewed plant procedures RP-201 and RP-207 which established the licensee's program for personnel monitoring of external dose in accordance with 10 CFR 20.202:

During tours of the plant, the inspector observed workers wearing appropriate personnel monitoring devices.

Technical Specification 6.8.1 requires the licensee to have written radiation protection procedures, including the use of radiation work permits. The inspector reviewed plant procedure RP-106 and RP-107 which provided detailed instructions on the preparation and processing of Radiation Work Permits (RWPs).

The inspector reviewed selected active RWPs for appropriateness of the radiation protection requirements based on work scope, location, and conditions. During tours of the plant, the inspector observed the adherence of plant workers to the RWP requirements and discussed the RWP requirements with plant workers at the job site.

10 CFR 20.203 specifies the posting, labeling and control requirements for radiation areas, high radiation areas, airborne radioactivity areas and radioactive material. Additional requirements for control of high radiation areas are contained in Technical Specification 6.12.1.

Plant procedures RP-101 and RP-202 contain additional information on the posting and control of radiological areas.

During tours of the plant, the inspector reviewed the licensee's posting and control of radiation areas, high radiation areas, airborne radioactivity areas, contamination areas, radioactive material areas and the labeling of radioactive material.

No violations or deviations were identified.

5. Internal Exposure Control (83725)

10 CFR 20.103(a) establishes the limits for exposure of individuals to concentrations of radioactive materials in air in restricted areas. This section also requires that suitable measurements of concentrations of radioactive materials in air be performed to detect and evaluate the airborne radioactivity in restricted areas and that appropriate bioassays be performed to detect and assess individual intakes of radioactivity.

The inspector reviewed selected results of bioassays (whole body counts/urinalyses) and the licensee's assessment of individual intakes of radioactive material performed during the period January to June 1984.

10 CFR 20.103(b) requires the licensee to use process or other engineering controls, to the extent practicable, to limit concentrations of radioactive material in air to levels below that specified in Part 20, Appendix B, Table I, Column 1 or limit concentrations, when averaged over the number of

hours in any week during which individuals are in the area, to less than 25 percent of the specified concentrations.

The use of process and engineering controls to limit airborne radioactivity concentrations in the plant was discussed with licensee representatives and the use of such controls was observed during tours of the plant.

10 CFR 20.103(b) requires that when it is impracticable to apply process or engineering controls to limit concentrations of radioactive material in air below 25% of the concentrations specified in Appendix B, Table 1, Column 1, other precautionary measures should be used to maintain the intake of radioactive material by any individual within seven consecutive days as far below 40 MPC-hours as is reasonably achievable. By review of records, observations and discussions with licensee representatives, the inspector evaluated the licensee's respiratory protection program, including training, medical qualifications, fit-testing, MPC-hour controls, quality of breathing air, and the issue, use, decontamination, repair and storage of respirators.

The inspector reviewed plant procedure RP-208 which established the licensee's internal exposure control and assessment program and verified that the procedures were consistent with regulations, Technical Specifications and good health physics practices.

No violations or deviations were identified.

6. Surveys, Monitoring, and Control of Radioactive Material (83726)

10 CFR 20.201(b) requires each licensee to make or cause to be made such surveys as (1) may be necessary for the licensee to comply with the regulations and (2) are reasonable under the circumstances to evaluate the extent of radiation hazards that may be present.

The inspector reviewed plant procedures RP-101 and RP-202 which established the licensee's radiological survey and monitoring program and verified that the procedures were consistent with regulations, Technical Specifications and good health physics practices.

The inspector reviewed selected records of radiation and contamination surveys performed during the period of May to July 1984, and discussed the survey results with licensee representatives.

During tours of the plant, the inspector observed health physics technicians performing radiation and contamination surveys.

The inspector informed independent radiation and loose surface contamination surveys in the auxiliary building and in the restricted area outside the auxiliary building and verified that the areas were properly posted.

The inspector discussed with the licensee the method used to release material from the restricted area and observed technicians performing release surveys for material.

The inspector observed personnel using the personnel flicker (RM-14/RM-16 with HP-210 pancake probe) to perform contamination surveys of themselves prior to exiting the controlled area.

No violations or deviations were identified.

7. ALARA Program (83728)

10 CFR 20.1c states that persons engaged in activities under licenses issued by the NRC should make every reasonable effort to maintain radiation exposure as low as reasonably achievable (ALARA). The recommended elements of an ALARA program are contained in Regulatory Guide 8.8, Information Relevant to Ensuring that Occupational Radiation Exposure at Nuclear Power Stations will be ALARA, and Regulatory Guide 8.10, Operating Philosophy for Maintaining Occupational Radiation Exposures ALARA.

The inspector reviewed plant procedure RP-108 which establishes the program for keeping occupational exposures ALARA and discussed the administrative aspects of the program with licensee representatives.

The inspector discussed the ALARA goals and objectives for the current year with licensee representatives and reviewed the man-rem estimates and results for the current year.

As of June 1984, the actual collective exposure for calendar year 1984 was 19.97 man-rem which represented 19 percent of the estimated exposure for the year.

No violations or deviations were identified.

8. Licensee Audits and Surveillances (83722, 83723, 83723, 83724, 83725, 83726, 83728, 84722, and 86721)

The inspector discussed the audit and surveillance program related to radiation protection, radioactive waste management and transportation of radioactive material with licensee representatives. The inspector reviewed the following audits and surveillances:

84-CHL-05, 84-YAH-08, and 84-CHL-09.

No violations or deviations were identified.

9. Inspector Followup Items

(Closed) IFI (50-302/84-04-01) Non-Radiological Respiratory Protection Program. The inspector reviewed plant procedure SP-804 which describes the controls for Self-Contained Breathing Apparatus (SCBAs).