

May 4, 1992

Docket No. 50-302

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Mr. Percy M. Beard, Jr.  
Senior Vice President,  
Nuclear Operations  
Florida Power Corporation  
ATTN: Manager, Nuclear  
Operations Licensing  
P. O. Box 219-NA-21  
Crystal River, Florida 32629

Dear Mr. Beard:

SUBJECT: CRYSTAL RIVER UNIT 3 - ISSUANCE OF AMENDMENT RE: RELOCATION OF  
RADIOLOGICAL EFFLUENT TECHNICAL SPECIFICATIONS (TAC NO. M82889)

The Commission has issued the enclosed Amendment No. 141 to Facility Operating License No. DPR-72 for the Crystal River Unit No. 3 Nuclear Generating Plant (CR-3). This amendment consists of changes to the Technical Specifications (TS) in response to your application dated January 23, 1992.

This amendment relocates the Radiological Effluent Technical Specifications (RETS) requirements from the TS to the Offsite Dose Calculation Manual (ODCM) or the Process Control Program (PCP), in accordance with the guidance of NRC Generic Letter 89-01, "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications and Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or to the Process Control Program."

A copy of the Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

(Original Signed By)  
Harley Silver, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 141 to DPR-72
2. Safety Evaluation

cc w/enclosures:

See next page

LA:PDII-2  
D Miller  
4/10/92

PE:PDII-2  
FRinaldi  
4/15/92

PM:PDII-2  
HSilver  
4/13/92

D:PDII-2  
HBerkow  
4/13/92

OGG  
CPW  
4/14/92

PRRB  
LCunningham  
4/30/92

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CPW  
4/14/92

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Florida Power Corporation

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DATED: May 4, 1992

AMENDMENT NO. 141 TO FACILITY OPERATING LICENSE NO. DPR-72-CRYSTAL RIVER UNIT 3

Docket File  
NRC & Local PDRs  
PDII-2 Reading  
S. Varga, 14/E/4  
G. Lainas, 14/H/3  
H. Berkow  
D. Miller  
H. Silver  
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OGC-WF  
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OC/LFMB  
M. Sinkule, R-II



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

FLORIDA POWER CORPORATION  
CITY OF ALACHUA  
CITY OF BUSHNELL  
CITY OF GAINESVILLE  
CITY OF KISSIMMEE  
CITY OF LEESBURG  
CITY OF NEW SMYRNA BEACH AND UTILITIES COMMISSION, CITY OF NEW SMYRNA BEACH  
CITY OF OCALA  
ORLANDO UTILITIES COMMISSION AND CITY OF ORLANDO  
SEMINOLE ELECTRIC COOPERATIVE, INC.  
CITY OF TALLAHASSEE

DOCKET NO. 50-302

CRYSTAL RIVER UNIT 3 NUCLEAR GENERATING PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 141  
License No. DPR-72

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Florida Power Corporation, et al. (the licensees) dated January 23, 1992, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

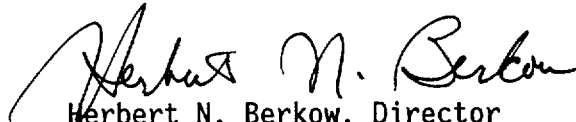
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-72 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.141, are hereby incorporated in the license. Florida Power Corporation shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 90 days.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: May 4, 1992

ATTACHMENT TO LICENSE AMENDMENT NO. 141

FACILITY OPERATING LICENSE NO. DPR-72

DOCKET NO. 50-302

Replace the following pages of the Appendix "A" Technical Specifications with the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change. The corresponding overleaf pages are also provided to maintain document completeness.

Remove

I  
Ia  
IV  
VII  
VIIIa  
XII  
XIIIa  
XVI  
1-6  
1-7  
3/4 3-42  
3/4 3-53  
3/4 7-49 thru 3/4 7-53  
3/4 7-54\*  
3/4 11-1 thru 3/4 11-15  
3/4 12-1 thru 3/4 12-12  
B3/4 3-6  
B3/4 7-7  
B3/4 7-8  
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B3/4 12-1  
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Insert

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VII  
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3/4 3-53  
3/4 7-49  
3/4 7-54\*  
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6-13a  
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\*There are no changes to this page. It is included to maintain document completeness.

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per disintegration (in MeV) for isotopes, other than iodines, with half lives greater than 15 minutes, making up at least 95% of the total non-iodine activity in the coolant.

### STAGGERED TEST BASIS

1.21 A STAGGERED TEST BASIS shall consist of:

- a. A test schedule for n systems, subsystems, trains or designated components obtained by dividing the specified test interval into n equal subintervals,
- b. The testing of one system, subsystem, train or designated components at the beginning of each subinterval.

### FREQUENCY NOTATION

1.22 The FREQUENCY NOTATION specified for the performance of Surveillance Requirements shall correspond to the intervals defined in Table 1.2.

### AXIAL POWER IMBALANCE

1.23 AXIAL POWER IMBALANCE shall be the THERMAL POWER in the top half of the core expressed as a percentage of RATED THERMAL POWER minus the THERMAL POWER in the bottom half of the core expressed as a percentage of RATED THERMAL POWER.

### REACTOR PROTECTION SYSTEM RESPONSE TIME

1.24 The REACTOR PROTECTION SYSTEM RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its trip setpoint at the channel sensor until power interruption at the control rod drive breakers.

## DEFINITIONS

### ENGINEERED SAFETY FEATURE RESPONSE TIME

1.25 The ENGINEERED SAFETY FEATURE RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its ESF actuation setpoint at the channel sensor until the ESF equipment is capable of performing its safety function (i.e., the valves travel to their required positions, pump discharge pressures reach their required values, etc.). Times shall include diesel generator starting and sequence loading delays where applicable.

### PHYSICS TESTS

1.26 PHYSICS TESTS shall be those tests performed to measure the fundamental nuclear characteristics of the reactor core and related instrumentation and 1) described in Chapter 13 of the FSAR, 2) authorized under the provisions of 10 CFR 50.59, or 3) otherwise approved by the Commission.

### SOURCE CHECK

1.27 A SOURCE CHECK shall be the qualitative assessment of channel response when the channel sensor is exposed to a radioactive source.

### PROCESS CONTROL PROGRAM (PCP)

1.28 The PROCESS CONTROL PROGRAM shall contain the current formulas, sampling, analyses, test, and determinations to be made to ensure that processing and packaging of solid radioactive wastes based on demonstrated processing of actual or simulated wet solid wastes will be accomplished in such a way as to assure compliance with 10 CFR Parts 20, 61, and 71, State regulations, burial ground requirements, and other requirements governing the disposal of solid radioactive waste.

1.29 DELETED

### OFFSITE DOSE CALCULATION MANUAL (ODCM)

1.30 The OFFSITE DOSE CALCULATION MANUAL shall contain the methodology and parameters used in the calculation of offsite doses resulting from radioactive gaseous and liquid effluents, in the calculation of gaseous and liquid effluent monitoring Alarm/Trip Setpoints, and in the conduct of the Environmental Radiological Monitoring Program. The ODCM shall also contain (1) the Radioactive Effluent Controls and Radiological Environmental Monitoring Programs required by Section 6.8.4 and (2) descriptions of the information that should be included in the Annual Radiological Environmental Operating and Semi-annual Radioactive Effluent Release Reports required by Specifications 6.9.1.5c and 6.9.1.5d.

### WASTE GAS SYSTEM

1.31 A WASTE GAS SYSTEM is any equipment (e.g., tanks, vessels, piping) capable of collecting primary coolant system offgases from the primary system and providing for delay or holdup for the purpose of reducing the total radioactivity prior to release to the environment.

## DEFINITIONS

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### 1.32 DELETED

#### PURGE - PURGING

1.33 PURGE or PURGING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is required to purify the confinement.

#### VENTING

1.34 VENTING is the controlled process of discharging air or gas from a confinement to maintain temperature, pressure, humidity, concentration or other operating condition, in such a manner that replacement air or gas is not provided or required during VENTING. Vent, used in system names, does not imply a VENTING process.

#### INDEPENDENT VERIFICATION

1.35 INDEPENDENT VERIFICATION is a separate act of confirming or substantiating that an activity or condition has been completed or implemented, in accordance with specified requirements, by an individual not associated with the original determination that the activity or condition was completed or implemented in accordance with specified requirements.

### 1.36 DELETED

## DEFINITIONS

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### MEMBER(S) OF THE PUBLIC

1.37 MEMBER(S) OF THE PUBLIC shall include all individuals who by virtue of their occupational status have no formal association with the plant. This category shall include non-employees of the licensee who are permitted to use portions of the site for recreational, occupational, or other purposes not associated with plant functions. This category shall not include non-employees such as vending machine servicemen or postmen who, as part of their normal job function, occasionally enter an area that is controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials.

### SITE BOUNDARY

1.38 The SITE BOUNDARY shall be that line beyond which the land is not owned, leased, or otherwise controlled by the licensee.

### UNRESTRICTED AREA

1.39 An UNRESTRICTED AREA shall be any area at or beyond the site boundary, access to which is not controlled by the licensee for purposes of protection of individuals from exposure to radiation and radioactive materials, or any area within the site boundary used for residential quarters or industrial, commercial, institutional, and/or recreational purposes.

### CORE OPERATING LIMITS REPORT

1.40 The CORE OPERATING LIMITS REPORT is the unit specific document that provides core operating limits for the current reload cycle. These cycle-specific core operating limits shall be determined for each reload cycle in accordance with Specification 6.9.1.7. Plant operation within these core operating limits is addressed in individual specifications.

TABLE 3.3-11  
FIRE DETECTION INSTRUMENTS

<u>DETECTOR LOCATION</u>	<u>MINIMUM DETECTORS OPERABLE HEAT/SMOKE</u>
1. Control Complex	
a. Elevation 108'0"	
1. Zone 4 (Plant Battery Room 3B)	NA/1
2. Zone 5 (Plant Battery Room 3A)	NA/1
3. Zone 6 (Battery Charger Room 3B)	NA/1
4. Zone 7 (Battery Charger Room 3A)	NA/1
5. Zone 8 (4160V Switchgear Bus Room 3B)	NA/1
6. Zone 9 (4160V Switchgear Bus Room 3A)	NA/1
7. Zone 10 (Inverter Room 3B)	NA/1
8. Zone 11 (Inverter Room 3A)	NA/1
b. Elevation 120'0"	
1. Zone 5 (Control Rod Drive Equipment Room)	NA/2
2. Zone 7 (480V Switchgear Bus Room 3B)	NA/1
3. Zone 8 (480V Switchgear Bus Room 3A)	NA/1
c. Elevation 134'0"	
1. Zone 3A (Cable Spreading Room)	NA/5
or	
2. Zone 3B (Cable Spreading Room)	NA/3
d. Elevation 145'0"	
1. Zone 4 (Satellite Instrument Shop and Office)	NA/2
2. Zone 5 (Control Room)	1/6
e. Elevation 164'0"	
1. Zone 3 (HVAC Equipment Room)	NA/5
2. Zone 4 (HVAC Emergency Equipment 3B)	NA/1
3. Zone 5 (HVAC Emergency Equipment 3A)	NA/1
2. Auxiliary Building	
a. Elevation 119'0"	
1. Zone 20 (Emergency Diesel Generator 3B Controls Room)	1/NA
2. Zone 21 (Emergency Diesel Generator 3A Controls Room)	1/NA
3. Zone 27 (Emergency Diesel Generator Room 3B)	5/NA
4. Zone 28 (Emergency Diesel Generator Room 3A)	5/NA



Pages 3/4 3-42 thru 3/4 3-52 are deleted.

Next page is 3/4 3-53

## INSTRUMENTATION

### WASTE GAS DECAY TANK - EXPLOSIVE GAS MONITORING INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.10 The Waste Gas Decay Tanks shall have one hydrogen and one oxygen monitoring channel OPERABLE.

APPLICABILITY: During WASTE GAS SYSTEM operation.

- ACTION:
- a. With the number of OPERABLE channels less than required above, operation of this system may continue, provided grab samples are collected and analyzed:
    - (1) at least once per 4 hours during degassing operations
    - (2) at least once per 24 hours during other operations
  - b. If the affected channel(s) cannot be returned to OPERABLE status within 30 days, submit a special report to the Commission pursuant to Specification 6.9.2 within 30 days describing the reasons for inoperability and a schedule for corrective action.
  - c. The provisions of 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.3.3.10 The Waste Gas Decay Tank explosive gas monitoring instrumentation shall be demonstrated operable by performing the CHANNEL CHECK, CHANNEL FUNCTIONAL TEST, and CHANNEL CALIBRATION at the frequencies shown in Table 4.3-10.

TABLE 4.3-10

WASTE GAS SYSTEM EXPLOSIVE GAS MONITORING INSTRUMENTATION  
SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>
1. Hydrogen Monitors	D	Q*	H
2. Oxygen Monitors	D	Q*	H

\* The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:

Hydrogen Monitors

- a. 1 volume percent hydrogen, balance nitrogen.
- b. 4 volume percent hydrogen, balance nitrogen.

Oxygen Monitors

- c. 1 volume percent oxygen, balance nitrogen.
- d. 4 volume percent oxygen, balance nitrogen.

Pages 3/4 7-49 thru 3/4 7-53 are deleted.

Next page is 3/4 7-54

## PLANT SYSTEMS

### WASTE GAS DECAY TANK - EXPLOSIVE GAS MIXTURE

#### LIMITING CONDITION FOR OPERATION

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3.7.13.5 The concentration of oxygen in any Waste Gas Decay Tank shall be limited to less than or equal to 2% by volume whenever the concentration of hydrogen in that Waste Gas Decay Tank is greater than or equal to 4% by volume.

APPLICABILITY: At all times.

#### ACTION:

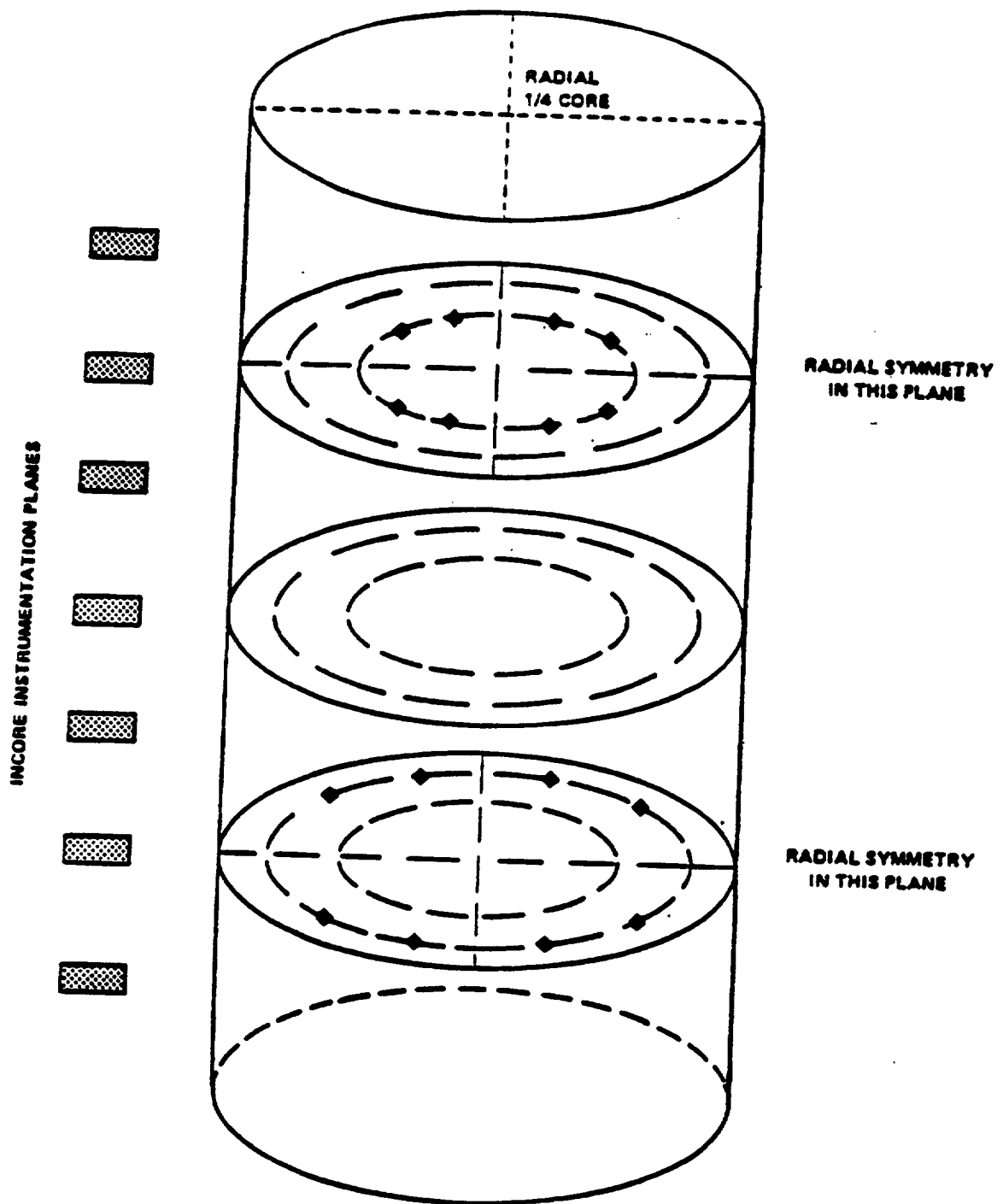
Whenever the concentration of hydrogen in any Waste Gas Decay Tank is greater than or equal to 4% by volume, and:

- a. The concentration of oxygen in that Waste Gas Decay Tank is greater than 2% by volume, but less than 4% by volume, without delay begin to reduce the oxygen concentration to within its limit.
- b. The concentration of oxygen in that Waste Gas Decay Tank is greater than or equal to 4% by volume, immediately suspend additions of waste gas to that Waste Gas Decay Tank and without delay begin to reduce the oxygen concentration to within its limit.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.7.13.5 The concentrations of hydrogen and oxygen in the Waste Gas Decay Tank shall be continuously monitored with the hydrogen and oxygen monitors required OPERABLE by Specification 3.3.3.10 or by sampling in accordance with Specification 3.3.3.10 if the hydrogen and/or oxygen monitors are inoperable.



Base Figure 3-2 Incore Instrumentation Specification  
Acceptable Minimum QUADRANT POWER TILT Arrangement

### 3/4.3 INSTRUMENTATION

#### BASES

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#### 3/4.3.3.8 DELETED

#### 3/4.3.3.9 DELETED

#### 3/4.3.3.10 WASTE GAS DECAY TANK - EXPLOSIVE GAS MONITORING INSTRUMENTATION

The OPERABILITY of the Waste Gas Decay Tank explosive gas monitoring instrumentation or the sampling and analysis program required by this specification provides for the monitoring (and controlling) of potentially explosive gas mixtures in the Waste Gas Decay Tanks.

#### 3/4.3.3.11 TOXIC GAS SYSTEMS

The OPERABILITY of the toxic gas systems ensures that sufficient capability is available to promptly detect and initiate protective action in the event of an accidental toxic gas release. This capability is required to protect control room personnel and is consistent with guidance provided in Regulatory Guide 1.78, "Assumptions for Evaluating the Habitability of a Nuclear Power Plant During a Postulated Chemical Release", June 1974 and Regulatory Guide 1.95, "Protection of Nuclear Power Plant Control Room Operators Against an Accidental Chlorine Release", Revision 1, January 1977.

The chlorine detection system is designed so that a chlorine concentration of .5 ppm by volume is not exceeded in the control room within 2 minutes after detection.

The sulfur dioxide detection system is designed so that a sulfur dioxide concentration of 40 ppm by volume is not exceeded in the control room within 2 minutes after detection.

## PLANT SYSTEMS

### BASES

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#### 3/4.7.13.1 WASTE GAS DECAY TANKS

Restricting the quantity of radioactivity contained in each waste gas decay tank provides assurance that in the event of a simultaneous uncontrolled release of all of the tanks' contents, the resulting total body exposure to an individual at the nearest exclusion area boundary will not exceed 0.5 rem. This is consistent with FSAR accident analyses.

#### 3/4.7.13.2 DELETED



## PLANT SYSTEMS

### BASES

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#### 3/4.7.13.3 DELETED

#### 3/4.7.13.4 DELETED

#### 3/4.7.13.5 EXPLOSIVE GAS MIXTURE

This specification is provided to ensure that the concentration of potentially explosive gas mixtures contained in the Waste Gas Decay Tanks is maintained below the flammability limits of hydrogen and oxygen. Maintaining the concentration of hydrogen and oxygen below their flammability limits provides assurance that the releases of radioactive materials will be controlled in conformance with the requirements of General Design Criterion 60 of Appendix A to 10 CFR Part 50.

## ADMINISTRATIVE CONTROLS

### AUDITS (Continued)

1. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.
1. The PROCESS CONTROL PROGRAM and implementing procedures for solidification of radioactive wastes at least once per 24 months.
- k. The performance of activities required by the Quality Assurance Program for effluent and environmental monitoring at least once per 12 months.
1. Any other area of facility operation considered appropriate by the NGRC or the Executive Vice President.

### AUTHORITY

- 6.5.2.10 The NGRC shall report to and advise the Executive Vice President on those areas of responsibility specified in Sections 6.5.2.8 and 6.5.2.9.

### RECORDS

- 6.5.2.11 Records of NGRC activities shall be prepared, approved and distributed as indicated below:
- a. Minutes of each NGRC meeting shall be prepared, approved and forwarded to the Executive Vice President within 14 days following each meeting.
  - b. Reports of reviews encompassed by Section 6.5.2.8 above, shall be forwarded to the Executive Vice President within 14 days following completion of the review.
  - c. Audit reports encompassed by Section 6.5.2.9 above, shall be forwarded to the Executive Vice President and to the management positions responsible for the areas audited within 30 days after completion of the audit.

### 6.6 REPORTABLE EVENT ACTION

- 6.6.1 The following actions shall be taken for REPORTABLE EVENTS:
- a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR 50, and
  - b. Each REPORTABLE EVENT shall be reviewed by the PRC and submitted to the NGRC and the Vice President, Nuclear Operations.

## ADMINISTRATIVE CONTROLS

### 6.7 SAFETY LIMIT VIOLATION

- 6.7.1 The following actions shall be taken in the event a Safety Limit is violated:
- a. The facility shall be placed in at least HOT STANDBY within one hour.
  - b. The Safety Limit violation shall be reported to the Commission, the Vice President, Nuclear Operations, and to the NGRC within 24 hours.
  - c. A Safety Limit Violation Report shall be prepared. The report shall be reviewed by the PRC. This report shall describe (1) applicable circumstances preceding the violation, (2) effects of the violation upon facility components, systems or structures and (3) corrective action taken to prevent recurrence.
  - d. The Safety Limit Violation Report shall be submitted to the Commission, the NGRC and the Vice President, Nuclear Operations within 14 days of the violation. A separate Licensee Event Report need not be submitted if the Safety Limit Violation Report meets the requirements of 10 CFR 50.73 (b) in addition to the requirements above.

### 6.8 PROCEDURES AND PROGRAMS

#### 6.8.1 SCOPE

Written procedures shall be established, implemented and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November, 1972.
- b. Refueling operations.
- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.
- f. Fire Protection Plan implementation.
- g. Systems Integrity Program implementation.
- h. Iodine Monitoring Program implementation.
- i. PROCESS CONTROL PROGRAM implementation.

## ADMINISTRATIVE CONTROLS

### 6.8 PROCEDURES AND PROGRAMS (Continued)

j. OFFSITE DOSE CALCULATION MANUAL implementation.

k. Quality Assurance Program for effluent and environmental monitoring.

#### 6.8.2 REVIEW PROCESS

6.8.2.1 Each procedure and administrative policy of 6.8.1 above, and changes thereto, shall be reviewed and approved prior to implementation as follows:

a. The Emergency Plan, Security Plan, Fire Protection Plan and implementing procedures, Administrative Instructions and those test procedures associated with plant modifications that affect nuclear safety shall be reviewed and approved by the PRC and the Director, Nuclear Plant Operations prior to implementation.

b. For all other procedures, the review cycle shall consist of: an intradepartmental review by a Qualified Reviewer, and interdisciplinary review by Qualified Reviewer(s) in interfacing departments, as specified in administrative procedures, and approval by the responsible Superintendent or Manager, as specified by administrative procedures. The PRC shall then review the 10 CFR 50.59 evaluation within 14 days of approval.

6.8.2.2 The training and qualification of Qualified Reviewers shall be governed by administrative procedures, with final certification by the Director, Nuclear Plant Operations. Recertification will be required on a periodic basis and upon transfer between departments. As a minimum, all Qualified Reviewers shall meet the requirements of ANSI N18.1-1971, Sections 4.2, 4.3, 4.4, or 4.6, or the equivalent.

6.8.2.3 Each procedure and administrative policy of 6.8.1 shall be reviewed on a periodic basis as set forth in administrative procedures.

## ADMINISTRATIVE CONTROLS

### 6.8 PROCEDURES AND PROGRAMS (Continued)

6.8.3 Temporary changes to procedures of 6.8.1 above may be made provided:

- a. The intent of the original procedure is not altered.
- b. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's License.
- c. The change is documented and subsequently reviewed and approved within 14 days of implementation, in accordance with the requirements of Specification 6.8.2

6.8.4 The following programs shall be established, implemented, and maintained:

a. Radioactive Effluent Controls Program

A program shall be provided conforming with 10 CFR 50.36a for the control of radioactive effluents and for maintaining the doses to MEMBERS OF THE PUBLIC from radioactive effluents as low as reasonably achievable. The program (1) shall be contained in the ODCM, (2) shall be implemented by operating procedures, and (3) shall include remedial actions to be taken whenever the program limits are exceeded. The program shall include the following elements:

- 1) Limitations on the operability of radioactive liquid and gaseous monitoring instrumentation including surveillance tests and setpoint determination in accordance with the methodology in the ODCM,
- 2) Limitations on the concentrations of radioactive material released in liquid effluents to UNRESTRICTED AREAS conforming to 10 CFR Part 20, Appendix B, Table II, Column 2,
- 3) Monitoring, sampling, and analysis of radioactive liquid and gaseous effluents in accordance with 10 CFR 20.106 and with the methodology and parameters in the ODCM,
- 4) Limitations on the annual and quarterly doses or dose commitment to a MEMBER OF THE PUBLIC from radioactive materials in liquid effluents released from the unit to UNRESTRICTED AREAS conforming to Appendix I to 10 CFR Part 50,
- 5) Determination of cumulative and projected dose contributions from radioactive effluents for the current calendar quarter and current calendar year in accordance with the methodology and parameters in the ODCM at least every 31 days,

## ADMINISTRATIVE CONTROLS

### 6.8.4a Radioactive Effluent Controls Program (Continued)

- 6) Limitations on the operability and use of the liquid and gaseous effluent treatment systems to ensure that the appropriate portions of these systems are used to reduce releases of radioactivity when the projected doses in a 31-day period would exceed 2 percent of the guidelines for the annual dose or dose commitment conforming to Appendix I to 10 CFR Part 50,
- 7) Limitations on the dose rate resulting from radioactive material released in gaseous effluents to areas beyond the SITE BOUNDARY conforming to the doses associated with 10 CFR Part 20, Appendix B, Table II, Column 1,
- 8) Limitations on the annual and quarterly air doses resulting from noble gases released in gaseous effluents from the unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50,
- 9) Limitations on the annual and quarterly doses to a MEMBER OF THE PUBLIC from Iodine-131, Iodine-133, tritium, and all radio-nuclides in particulate form with half-lives greater than 8 days in gaseous effluents released from the unit to areas beyond the SITE BOUNDARY conforming to Appendix I to 10 CFR Part 50, and
- 10) Limitations on the annual dose or dose commitment to any MEMBER OF THE PUBLIC due to releases of radioactivity and to radiation from uranium fuel cycle sources conforming to 40 CFR Part 190.

### b. Radiological Environmental Monitoring Program

A program shall be provided to monitor the radiation and radio-nuclides in the environs of the plant. The program shall provide (1) representative measurements of radioactivity in the highest potential exposure pathways, and (2) verification of the accuracy of the effluent monitoring program and modeling of environmental exposure pathways. The program shall (1) be contained in the ODCM, (2) conform to the guidance of Appendix I to 10 CFR Part 50, and (3) include the following:

- 1) Monitoring, sampling, analysis, and reporting of radiation and radionuclides in the environment in accordance with the methodology and parameters in the ODCM,

## ADMINISTRATIVE CONTROLS

### 6.8.4b Radiological Environmental Monitoring Program (Continued)

- 2) A Land Use Census to ensure that changes in the use of areas at and beyond the SITE BOUNDARY are identified and that modifications to the monitoring program are made if required by the results of this census, and
- 3) Participation in an Interlaboratory Comparison Program to ensure that independent checks on the precision and accuracy of the measurements of radioactive materials in environmental sample matrices are performed as part of the quality assurance program for environmental monitoring.

## 6.9 REPORTING REQUIREMENTS

### ROUTINE REPORTS

- 6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Director of the Regional Office of Inspection and Enforcement unless otherwise noted.

### STARTUP REPORTS

- 6.9.1.1 A summary report of plant startup and power escalation testing will be submitted following (1) receipt of an operating license, (2) amendment to the license involving a planned increase in power level, (3) installation of fuel that has a different design or has been manufactured by a different fuel supplier, and (4) modifications that may have significantly altered the nuclear, thermal, or hydraulic performance of the plant.
- 6.9.1.2 The startup report shall address each of the tests identified in the FSAR and shall include a description of the measured values of the operating conditions or characteristics obtained during the test program and a comparison of these values with design predictions and specifications. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details requested in license conditions based on other commitments shall be included in this report.
- 6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events, (i.e., initial criticality, completion of startup test program, and the resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

## ADMINISTRATIVE CONTROLS

### ANNUAL AND SEMIANNUAL REPORTS

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include:

- a. A tabulation of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr. and their associated man-rem exposure according to work and job functions<sup>1</sup>, e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignments to various duty functions may be estimated based on pocket dosimeter, TLD, or film badge measurements. Small exposures totaling less than 20 percent of the individual total dose need not be accounted for. In the aggregate, at least 80 percent of the total whole body dose received from external sources should be assigned to specific major work functions.
- b. A list of the reactor vessel material surveillance capsules installed in the reactor at the end of the report period and a summary of any withdrawals or insertions of capsules during the report period. In supplying this information, the ownership of each capsule shall be indicated and the irradiation location in the vessel of each capsule which was inserted during the report period shall be identified.

c. Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted before May 1 of each year. The report shall include summaries, interpretations, and analysis of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in (1) the ODCM and (2) Sections IV.B.2, IV.B.3, and IV.C of Appendix I to 10 CFR Part 50.

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<sup>1</sup>This tabulation supplements the requirements of 20.407 of 10 CFR Part 20.



## ADMINISTRATIVE CONTROLS

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### ANNUAL AND SEMIANNUAL REPORTS (Continued)

d. Semiannual Radioactive Effluent Release Report

The Semiannual Radioactive Effluent Release Report covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be (1) consistent with the objectives outlined in the ODCM and PCP and (2) in conformance with 10 CFR 50.36a and Section IV.B.1 of Appendix I to 10 CFR Part 50.

- e. A list of all challenges to the Pressurizer Power Operated Relief Valve (PORV) and pressurizer safety valves for the report period.

## ADMINISTRATIVE CONTROLS

### SPECIAL REPORTS

- 6.9.2 Special reports shall be submitted to the Director of the Office of Inspection and Enforcement, Region II, within the time period specified for each report. These reports shall be submitted covering the activities identified below. A separate Licensee Event Report, when required by 10 CFR 50.73 (a), need not be submitted if the Special Report meets the requirements of 10 CFR 50.73 (b) in addition to the requirements of the applicable referenced Specification.
- a. ECCS Actuation, Specification 3.5.2 and 3.5.3.
  - b. Inoperable Seismic Monitoring Instrumentation, Specification 3.3.3.3.
  - c. Inoperable Meteorological Monitoring Instrumentation, Specification 3.3.3.4.
  - d. Seismic event analysis, Specification 4.3.3.3.2.
  - e. Inoperable Fire Detection Monitoring Instrumentation, Specification 3.3.3.7.
  - f. Specific Activity, Specification 3.4.8.
  - g. Results of Steam Generator Tube Inspection. Specification 4.4.5.5.b.
  - h. Inoperable Fire Suppression System, Specification 3.7.11.1., 3.7.11.2, 3.7.11.3, and 3.7.11.4.
  - i. DELETED
  - j. DELETED
  - k. DELETED
  - l. DELETED
  - m. DELETED
  - n. DELETED
  - o. DELETED

## ADMINISTRATIVE CONTROLS

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### SPECIAL REPORTS (Continued)

- p. DELETED
- q. Inoperable explosive gas monitoring instrumentation, Specification 3.3.3.10.

### 6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

- a. Records and logs of facility operation covering time intervals at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. All REPORTABLE EVENTS submitted to the Commission.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of reactor tests and experiments.
- f. Records of changes made to Operating Procedures.
- g. Records of radioactive shipments.
- h. Records of sealed source and fission detector leak tests and results.
- i. Records of annual physical inventory of all sealed source material of record.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

- a. Records and drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- c. Records of facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.

## ADMINISTRATIVE CONTROLS

- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components identified in Table 5.7.-1.
- g. Records of training and qualification for current members of the plant staff.
- h. Records of inservice inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA Manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the PRC and NGRC.
- l. Records for Environmental Qualification which are covered under the provisions of paragraph 6.13.
- m. Records of analytical results required by the Operational Radiological Environmental Monitoring Program.
- n. Records of reviews performed for changes made to the OFFSITE DOSE CALCULATION MANUAL and the PROCESS CONTROL PROGRAM.

### 6.11 RADIATION PROTECTION PROGRAM

Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure.

### 6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c) (2) of 10 CFR 20 a High Radiation Area in which the intensity of radiation is greater than 100 mrem/hr but less than 1000 mrem/hr shall be barricaded and conspicuously posted as a High Radiation Area and entrance thereto shall be controlled by issuance of a Radiation Work Permit and any individual or group of individuals permitted to enter such areas shall be provided with one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area, or
- b. An integrating alarming dosimeter which alarms when a preset integrated dose or dose rate is received. Entry into such areas with this alarming dosimeter may be made after the dose rate levels in the area have been established and personnel have been made knowledgeable of them, or

## ADMINISTRATIVE CONTROLS

### 6.12 HIGH RADIATION AREA (Continued)

c.) An individual qualified in Health Physics Procedures with a radiation dose rate monitoring device, who is responsible for providing positive control over the activities in the area and who performs periodic radiation surveillance at the frequency specified by the Radiation Work permit.

- 6.12.2 A High Radiation Area in which the intensity of radiation is greater than 1000 mrem/hr shall be subject to the provisions of 6.12.1 above, and in addition locked doors shall be provided to prevent unauthorized entry into such area. The keys shall be maintained under the administrative control of the Health Physics Supervisor with one key assigned to the administrative control of Shift Supervisor on duty.

Individual areas that are accessible to personnel, with radiation levels such that a major portion of the body could receive in one hour a dose in excess of 1000 mrem,\*\* and that are located within large areas such as the Reactor Building where no enclosure exists for purposes of locking and no enclosure can be reasonably constructed around the individual area, shall be roped off and conspicuously posted, and a flashing light shall be activated as a warning device.

### 6.13 ENVIRONMENTAL QUALIFICATION

- 6.13.1 By no later than June 30, 1982, all safety-related electrical equipment in the facility shall be qualified in accordance with the provisions of Division of Operating Reactors "Guidelines for Evaluating Environmental Qualification of Class 1E Electrical Equipment in Operating Reactors" (DOR Guidelines) or NUREG-0588 "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," December, 1979. Copies of these documents are attached to Order for Modification of License DPR-72 dated October 24, 1980.
- 6.13.2 By no later than December 1, 1980, complete and auditable records must be available and maintained at a central location which describe the environmental qualification method used for all safety-related electrical equipment in sufficient detail to document the degree of compliance with the DOR Guidelines or NUREG-0588. Thereafter, such records should be updated and maintained current as equipment is replaced, further tested, or otherwise further qualified.

\*\*Measurement made at 18" from source of radioactivity.

## ADMINISTRATIVE CONTROLS

### 6.14 PROCESS CONTROL PROGRAM (PCP)

Changes to the PCP:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3n. This documentation shall contain:
  - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s), and
  - 2) A determination that the change will maintain the overall conformance of the solidified waste product to existing requirements of Federal, State, or other applicable regulations.
- b. Shall become effective after review and acceptance by the PRC and the approval of the Director, Nuclear Plant Operations.

### 6.15 OFFSITE DOSE CALCULATION MANUAL (ODCM)

Changes to the ODCM:

- a. Shall be documented and records of reviews performed shall be retained as required by Specification 6.10.3n. This documentation shall contain:
  - 1) Sufficient information to support the change together with the appropriate analyses or evaluations justifying the change(s), and
  - 2) A determination that the change will maintain the level of radioactive effluent control required by 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a, and Appendix I to 10 CFR Part 50 and not adversely impact the accuracy or reliability of effluent, dose, or setpoint calculations.
- b. Shall become effective after review and acceptance by the PRC and the approval of the Director, Nuclear Plant Operations.
- c. Shall be submitted to the Commission in the form of a complete, legible copy of the entire ODCM as a part of or concurrent with the Semiannual Radioactive Effluent Release Report for the period of the report in which any change to the ODCM was made. Each change shall be identified by markings in the margin of the affected pages, clearly indicating the area of the page that was changed, and shall indicate the date (e.g., month/year) the change was implemented.

### 6.16 DELETED



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 141 TO FACILITY OPERATING LICENSE NO. DPR-72  
FLORIDA POWER CORPORATION, ET AL.  
CRYSTAL RIVER UNIT NO. 3 NUCLEAR GENERATING PLANT  
DOCKET NO. 50-302

1.0 INTRODUCTION

By letter dated January 23, 1992, Florida Power Corporation (the licensee) proposed changes to the Technical Specifications (TS) for the Crystal River Unit 3 (CR-3) Nuclear Generating Plant. Specifically, the proposed changes would relocate the Radiological Effluent Technical Specifications (RETS) requirements from the TS to the Offsite Dose Calculation Manual (ODCM) or the Process Control Program (PCP), in accordance with the guidance of NRC Generic Letter 89-01, "Implementation of Programmatic Controls for Radiological Effluent Technical Specifications and Relocation of Procedural Details of RETS to the Offsite Dose Calculation Manual or the Process Control Program," dated January 31, 1989. GL 89-01 stated that the staff would approve a TS amendment to delete RETS if the requirements would be relocated to the ODCM or PCP.

2.0 EVALUATION

The proposed request incorporates programmatic controls in the Administrative Controls Section of the TS that satisfy the requirements of 10 CFR 20.106, 40 CFR Part 190, 10 CFR 50.36a and Appendix I to 10 CFR Part 50; relocates the current specifications involving radioactive effluent monitoring instrumentation the control of liquid and gaseous effluents, equipment requirements for liquid and gaseous effluents, radiological environmental monitoring, and radiological reporting details from the TS to the ODCM; relocates the definition of solidification and the current specifications on solid radioactive wastes to the PCP; simplifies the associated reporting requirements; simplifies the administrative controls for changes to the ODCM and PCP; adds record retention requirements for changes to the ODCM and PCP; and updates the definitions of the ODCM and PCP consistent with these changes.

The licensee plans to utilize the 10 CFR 50.59 process as the control mechanism for the relocated specifications, and has included requirements for

review and acceptance by the Plant Review Committee (PRC) and approval by the Director, Nuclear Plant Operations (DNPO) prior to implementation. This will allow the licensee to make changes to the specifications which will maintain conformance with Federal, State, and other applicable regulations and will not adversely impact the accuracy and reliability of effluent, dose, or setpoint calculations. The implementing procedures for the relocated specifications will also be controlled in accordance with 10 CFR 50.59 and require PRC and DNPO review and approval prior to use.

The proposed changes, as discussed above, are based on NRC GL 89-01 dated January 31, 1989. These changes follow the guidance as specified in GL 89-01 for removing RETS to the ODCM or PCP, as appropriate. Requirements for the contents of the RETS program are specified in Section 6 of the TS. In addition, the changes do not alter the conditions or assumptions of any accident analysis, as stated in the CR-3 Updated Final Safety Analysis Report. Therefore, the NRC staff finds the proposed changes to be acceptable.

### 3.0 STATE CONSULTATION

Based upon the written notice of the proposed amendment, the Florida State official had no comments.

### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment involves changes in recordkeeping, reporting or administrative procedures or program requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(10). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date: May 4, 1992