Florida Power
CORPORATION

October 17, 1979

File: 3-0-3-a-3

Mr. Darrell G. Eisenhut
Acting Director
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Lessons Learned Task Force Recommendations

Dear Mr. Eisenhut:

On September 17, 1979, Florida Power Corporation received your letter of September 13, 1979, requesting a commitment from Florida Power Corporation to meet the requirements contained in NUREG-0578 and your letter. You further requested us to commit to the implementation schedule for these items identified in Enclosures 6 and 8 of your letter.

We have thoroughly reviewed your letter, as well as NUREG-0578, in an attempt to define the work scope of each item and our ability to comply with your implementation schedule.

The attached document addresses each of the items contained in your letter and NUREG-0578. In areas where our review has determined that it is not possible for us to meet the total extent of your request within your requested schedule, we have provided our best schedule and interim actions, as appropriate.

It should also be noted that many of the design reviews for the modifications you have requested for implementation in 1980 are in the preliminary stages. Should problems arise in the design or implementation of these modifications, Florida Power Corporation will advise you immediately of the problem and our proposed course of action to resolve the issue.

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The modifications which require a shutdown of CR3 for installation and are required to be implemented by January 1, 1980, will be completed during the first outage of sufficient duration after receipt of equipment, but no later than the 1980 refueling outage. These items are identified in the attachment to this letter.

Very truly yours,

FLORIDA POWER CORPORATION

W. P. Stewart

W. P. Stewart
Manager
Nuclear Operations

ECSekcW03(D70)

Attachment

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STATE OF FLORIDA

COUNTY OF PINELLAS

W. P. Stewart states that he is the Manager, Nuclear Operations, of Florida Power Corporation; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission the information attached hereto; and that all such statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

W. P. Stewart

W. P. Stewart

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 17th day of October, 1979.

Catherine S. Cameron

Notary Public

Notary Public, State of Florida at Large,
My Commission Expires: August 8, 1983

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CameronNotary 3(D12)

FLORIDA POWER CORPORATION
RESPONSES TO D. EISENHUT'S LETTER
DATED SEPTEMBER 13, 1979

Item a:

The staff will be proposing a new rule on a Limiting Condition of Operation to require plant shutdown for certain human or procedural errors, particularly those which are repetitive in nature. As such, no action is required on your part at this time.

RESPONSE:

No response required.

Item b:

At the present time we are delaying efforts regarding proposed rulemaking on both the inerting requirements for Mark I and II BWR containments, and the requirement regarding hydrogen recombiner capability; accordingly, no action is required on your part at this time.

RESPONSE:

No response required.

Item c:

The ACRS comments on the shift technical advisor have resulted in our reassessment of the possible means of achieving the two functions which the Task Force intended to provide by this requirement. The two functions are accident assessment and operating experience assessment by people on-site with engineering competence and certain other characteristics. We have concluded that the shift technical advisor concept is the preferable short-term method of supplying these functions. We have also concluded that some flexibility in implementation may yield the desired results if there is management innovation by individual licensees. We have prepared a statement of functional characteristics for the shift technical advisor that will be used by the staff in the review of any alternatives proposed by licensees.

RESPONSE:

See response to Section 2.2.1.b.

Item d:

Three additional instrumentation requirements for short-term action were developed during the ACRS review of NUREG-0578. These items relate to containment pressure, containment water level and containment hydrogen monitors designed to follow the course of an accident.

RESPONSE:

See response to Section 2.1.9.

Item e:

An additional requirement following issuance of NUREG-0578, which concerned a remotely operable high point vent for gas from the reactor coolant system, was developed.

RESPONSE:

See response to Section 2.1.9.

Recommendation 2.1.1 - Emergency power supply requirement for pressurizer heaters, power operated relief valves, and block valves and pressurizer level indicators.

RESPONSE:

Florida Power Corporation will comply with the above recommendation and schedule for all of the above equipment except for the pressurizer heaters.

Because of the time needed for designing, procuring, and installing qualified equipment that would satisfy the power supply requirement to the pressurizer heaters as detailed in NUREG-0578, it is not possible to meet the desired implementation date of January 1, 1980.

A temporary procedure is being developed for the operators to follow that will allow the connection of preselected heaters to the Engineered Safeguards (safety-related) bus during a loss of offsite power when loading conditions permit. This will be accomplished by utilizing the existing cross-tie breakers and assuring that all nonessential loads are disconnected from the respective buses.

A schedule for installation of the equipment to fully comply with the NUREG requirement for this item will be submitted by January 1, 1980.

Recommendation 2.1.2 - Performance testing for BWR and PWR relief and safety valves

RESPONSE:

Florida Power Corporation will participate in the EPRI/NSAC program to conduct performance testing of PWR relief and safety valves. We will verify that the program is applicable to CR#3. It is understood that this program will be reviewed with the NRC prior to testing to ensure that the intent of NUREG-0578, Recommendation 2.1.2, is satisfied.

We believe that substantive test data can be obtained by July, 1981. However, scheduling of the test facility, acquisition of the valves to be tested, and the possibility of extensive retesting could result in delays.

Recommendation 2.1.3.a - Direct position indication of PORV and safety valves for PWRs

RESPONSE:

Florida Power Corporation is in the process of procuring from B&W the equipment necessary to satisfy this recommendation. The installation of the equipment will require an outage and will, therefore, be installed at our next outage of sufficient duration following receipt of this equipment, and no later than our refueling outage in 1980.

Recommendation 2.1.3.b - Instrumentation for inadequate core cooling

RESPONSE:

Florida Power Corporation is committed to a B&W program which will determine what additional instrumentation, if any, is needed for detection of inadequate core cooling. Due to the significant and thorough scope of this effort, the design of this new equipment will not be available from B&W until January 31, 1980. Florida Power Corporation will submit this information as soon as possible to you following our review.

Every effort will be made to install this instrumentation by January 1, 1981, subject to equipment availability and NRC review.

We will develop procedures and describe our existing equipment by January 1, 1980, for determining inadequate core cooling at CR#3.

Recommendation 2.1.4 - Diverse containment isolation

RESPONSE:

This recommendation will be completed by CR#3 by January 1, 1980.

Recommendation 2.1.5.a - Dedicated H_2 control penetrations

RESPONSE:

Florida Power Corporation will provide a description of the H_2 control penetrations at CR#3 by January 1, 1980. We will also provide a schedule for modification to meet the NUREG requirement, if necessary, by January 1, 1980.

Recommendation 2.1.5.c - Recombiners procedure

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RESPONSE:

Florida Power Corporation will satisfy this recommendation by January 1, 1980.

Recommendation 2.1.6.a - Systems integrity for high radioactivity

RESPONSE:

Florida Power Corporation will develop and implement a leak reduction and preventive maintenance program by January 1, 1980.

Recommendation 2.1.6.b - Plant shielding review

RESPONSE:

A design review of plant shielding in areas that may contain radioactive material following an accident is currently underway. Results of this review will be completed and forwarded to you, along with any identified feasible design modifications by January 1, 1980. Those modifications will be completed by January 1, 1981, subject to equipment availability and NRC reviews.

Recommendation 2.1.7.a - Auto initiation of auxiliary feedwater

RESPONSE:

A control grade auto initiation of the emergency feedwater system at CR#3 was installed as a requirement prior to the restart of CR#3, following the issuance of the NRC shutdown order to B&W plants. The present design, has been reviewed and approved by the NRC; therefore, no further modifications to the control grade system is planned. We are presently designing a safety-grade system for implementation by January 1, 1981, subject to NRC review and equipment availability.

Recommendation 2.1.7.b - Auxiliary feed flow indication

RESPONSE:

CR#3 presently has a control grade emergency feedwater flow indication which has been reviewed and approved by the NRC; therefore, no further modification to the control grade system is planned. We are currently designing a safety-grade system for installation by January 1, 1981, subject to the availability of equipment.

Recommendation 2.1.8.a - Post-accident sampling

RESPONSE:

We are currently conducting a design and procedure review regarding post-accident sampling at CR#3. These reviews and a report describing the review and corrective actions will be forwarded to you by January 1, 1980. Any plant modifications required as a result of this review will be completed by January 1, 1981, subject to NRC review and equipment availability.

Recommendation 2.1.8.b - High range radiation monitors

RESPONSE:

We are presently developing interim procedures for the estimation of high level accidental radioactive releases if existing instrumentation goes off-scale. This effort will be completed by January 1, 1980. The installation of high range radiation monitors that meet the requirements of NUREG-0578 will be installed by January 1, 1981, subject to NRC review and equipment availability.

Recommendation 2.1.8.c - Improved iodine instrumentation

RESPONSE:

This recommendation will be satisfied by January 1, 1980.

Recommendation 2.1.9 - Analysis and design of off-normal transients and accidents

1. Small break LOCA analysis and preparation of emergency procedure guidelines

2. Implementation of small break LOCA emergency procedures and retraining of operators

3. Analysis of inadequate core cooling and preparation of emergency procedure guidelines

4. Implementation of emergency procedures and retraining related to inadequate core cooling

5. Analysis of accidents and transients and preparation of emergency procedure guidelines

6. Implementation of emergency procedures and retraining related to accidents and transients

7. Analysis of LOFT small break tests

RESPONSE:

1. The analyses have been performed, emergency procedure guidelines prepared, procedures modified, and training provided.

2. Emergency procedures have been modified and operator training has been provided.

3. These analyses and procedural guidelines are being prepared as our response to IE Bulletin 79-05C, Item 5, and will be provided to us by B&W by October 31, 1979.

4. Emergency procedures will be modified and operator training provided based on the results of Item 3 above, by January 1, 1980.

5. We are committed to a generic B&W program to address this item. We believe this is an in-depth and thorough program. Due to the detailed nature of this effort, the generic results will be available as discussed in the B&W Owners Group meeting with the NRC Staff on September 13, 1979, and documented in NRC's letter of September 21, 1979.

6. Plant specific procedures and operator training based on the results of Item 5 above, will be completed within 3 months of completion of Item 5.

7. Florida Power Corporation has committed to a generic B&W program to analyze the LOFT small break tests. As discussed with the staff by the B&W Owners Group in a September 13, 1979, meeting, the results of this analysis will not be available until January 15, 1980. This is currently our most expedited schedule based on the scheduled workload of B&W personnel.

Recommendation 2.1.9 - Containment pressure, water level, hydrogen monitors, and RCS venting

RESPONSE:

A generic design effort is underway at B&W, to which Florida Power Corporation is committed, to provide a functional description of the construction, location, size, and appropriate power supply for RCS vents. Appropriate safety analyses considering the effects of such vents are also being pursued. The current schedule indicates that a preliminary design and safety analysis could be forwarded to you in January, 1980. Additional design details and safety analyses would be provided later in 1980. Provided the evaluations are completed as expected, these vents should be installed by January 1, 1981, subject to NRC approval, equipment availability, and plant outages, if required.

The containment pressure, water level, and hydrogen monitors which meet the NUREG requirements will be installed by January 1, 1981, subject to equipment availability.

Recommendation 2.2.1.a - Shift Supervisor responsibilities

RESPONSE:

This recommendation will be implemented by January 1, 1980.

Recommendation 2.2.1.b - Shift Technical Advisor

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RESPONSE:

Shift Technical Advisors will be on duty by January 1, 1980, utilizing, on the short-term, the current Plant Staff who meet the qualifications as identified in

your September 13, 1979, letter. In addition, contract engineers will be utilized during normal day shifts to perform operating experience assessment while the Plant Staff are performing their normal job functions.

On the long-term, the necessary training will be conducted to provide for fully trained Plant Staff to perform the function of Shift Technical Advisors by January 1, 1981.

Recommendation 2.2.1.c - Shift turnover procedures

RESPONSE:

These procedures will be developed and implemented by January 1, 1980.

Recommendation 2.2.2.a - Control Room access control

RESPONSE:

Florida Power Corporation will implement this recommendation by January 1, 1980.

Recommendation 2.2.2.b - On-site technical support center

RESPONSE:

This center will be established by January 1, 1980.

Recommendation 2.2.2.c - On-site operational support center

RESPONSE:

Implementation will be completed by January 1, 1980.

Recommendation - Near-term emergency preparedness improvements

1. Upgrade emergency plans to Regulatory Guide 1.101 with special attention to action level criteria based on plant parameters.

2. Implement certain short term actions recommended by Lessons Learned task force and use these in action level criteria.[2]

   2.1.8(a) Post-accident sampling

   Design review complete
   Preparation of revised procedures
   Implement plant modifications
   Description of proposed modification

2.1.8(b) High range radioactivity monitors

Methods for estimating release
High range monitors

2.1.8(c) Improved in-plant iodine instrumentation

3. Establish Emergency Operations Center for Federal, State and Local Officials

(a) Designate location and alternate location and provide communications to plant

(b) Upgrade Emergency Operations Center in conjunction with in-plant technical support center

4. Improve offsite monitoring capability

5. Assure adequacy of State/local plans

(a) Against current criteria

(b) Against upgraded criteria

6. Conduct test exercises (Federal, State, local, licensee)

(a) Test of licensees emergency plan

(b) Test of State emergency plans

(c) Joint test exercise of emergency plans (Federal, State, local, licensee)

New OL's
All operating plants

RESPONSE:

Items 1, 3, 4, 5, and 6 will be implemented within the schedule identified in your September 13, 1979, letter. Item 2 has been addressed previously in this correspondence under Items 2.1.8(a), 2.1.8(b), and 2.1.8(c).

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