

**Florida
Power**
CORPORATION

REGION II
ATLANTA, GEORGIA

82 JAN 28 10 54

January 20, 1982
#3F-0182-17
File: 3-0-5-g

Mr. James P. O'Reilly
Regional Administrator
U. S. Nuclear Regulatory Commission, Region II
101 Marietta Street, N. W., Suite 3100
Atlanta, Georgia 30303

SUBJECT: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Emergency Preparedness Appraisal
Inspection Report No. 50-302/81-14

Dear Mr. O'Reilly:

Pursuant to 10CFR50.54(f), Florida Power Corporation hereby submits this letter in response to your Emergency Preparedness Appraisal Report dated December 21, 1981. Appendix B, "Emergency Preparedness Improvement Areas", of your report lists the areas of improvement noted during the Emergency Preparedness Appraisal of the Crystal River Unit 3 Nuclear Plant conducted during the period of August 17-27, 1981, (reference also Inspection Report No. 50-302/81-14). Each of the sixty-one (61) items in Appendix B has been addressed and responses are provided in Attachment 1, "Responses to Emergency Preparedness Improvement Areas."

Should there be any questions, please contact this office.

Very truly yours,

David G. Mardis
Acting Manager
Nuclear Licensing

DGM/mlg

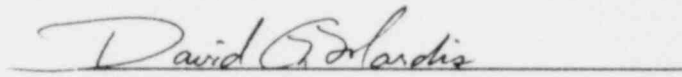
Enclosure

8203080075 810129
PDR ADOCK 05000302
PDR
Q

STATE OF FLORIDA

COUNTY OF CITRUS

David G. Mardis states that he is the Acting Manager, Nuclear Licensing 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 herein are true and correct to the best of his knowledge, information and belief.



David G. Mardis

Subscribed and sworn to before me, a Notary Public in and for the State and County above named, this 20th day of January, 1982.



Notary Public

Notary Public, State of Florida at Large.

My Commission Expires:

Notary Public, State of Florida at Large

My Commission Expires Dec. 3, 1982

Bonded By American Fire & Casualty Company

ATTACHMENT 1

Responses to Emergency Preparedness Improvement Areas

1. a. **Recommendation:**

Prioritizing assignments or reducing the commitments of personnel assigned to three or more emergency teams.

b. **Response:**

Florida Power Corporation concurs with this recommendation and it will be addressed accordingly as additional qualified manpower becomes available.

2. a. **Recommendation:**

Changing from every two years to annually the general employee retraining requirement listed in AI-4000.

b. **Response:**

The applicable AI is AI 1400. AI 4000 does not exist and is assumed to be in error.

This recommendation has been initiated as of January 1, 1982. It is currently being incorporated into the Nuclear Operations Training Department Procedures covering General Employee Training.

AI 1400 is to be replaced in its entirety upon issuance of the Nuclear Operations Training Department Procedure Manual.

3. a. **Recommendation:**

Finalizing and documenting the lesson plans used for each category of emergency training.

b. **Response:**

Lesson plans for each category are, currently, in the process of being developed. The Fire Brigade lesson plan is in the final stage of development.

4. a. **Recommendation:**

Reevaluating the methods of instruction for plant employees on changes to emergency procedures and equipment which occur in between training cycles.

b. **Response:**

The Fire Brigade is currently the only team receiving training on changes other than on a yearly basis. The other emergency teams are being evaluated as to the proper and effective method of instruction concerning change to emergency procedures or equipment.

5. a. **Recommendation:**

Including in Procedure TDP-307 a description of the instruction program for the emergency sampling team.

b. **Response:**

A description of the instruction program for the Emergency Sample Team will be incorporated into TDP-307 upon completion and approval of current modifications to those Emergency Implementing Procedures (EM's) which have direct effect on sampling team training.

6. a. **Recommendation:**

Expanding TSC working space to provide approximately 75 sq. ft./person designated to report to the TSC.

b. **Response:**

Efforts are currently underway to move from the interim Technical Support Center the permanent TSC facility. This action will resolve the concern of this recommendation.

7. a. **Recommendation:**

Providing a separate room adequate for at least three persons to be used for private NRC consultations.

b. **Response:**

This recommendation will be satisfied upon completion of the move to the permanent TSC, as mentioned in Item 6 above.

8. a. **Recommendation:**
- Providing a dedicated telephone on the NRC ENS and a dedicated HPN telephone for the NRC consultation room.
- b. **Response:**
- Provisions have been made in the communications equipment plans for the permanent TSC facility to install the Emergency Notification System (ENS) and Health Physics Network (HPN) telephones in the NRC consultation room.
9. a. **Recommendation:**
- Providing at least two designated dial telephone lines for NRC use when the TSC is activated.
- b. **Response:**
- Provisions have been made in the communications equipment plans for the permanent TSC facility to install two designated telephone lines for NRC use.
10. a. **Recommendation:**
- Providing a dedicated telephone for management communication directly with the OSC.
- b. **Response:**
- Provisions have been made in the communications equipment plans for the permanent TSC facility to install a designated communication link between the TSC and Operations Support Center (OSC).
11. a. **Recommendation:**
- Providing a base station communication system in the TSC for communicating with licensee mobile monitoring teams.
- b. **Response:**
- Provisions have been made in the communications equipment plans for the permanent TSC facility to install a base station communication system for communicating with mobile monitoring teams.

12. a. **Recommendation:**
- Providing data display equipment or systems needed to acquire, process, and display data used in the TSC and space for personnel access to functional displays.
- b. **Response:**
- Data display equipment and/or systems and space for personnel access to functional displays are available in the permanent TSC facility.
13. a. **Recommendation:**
- Providing a backup location for the OSC.
- b. **Response:**
- The transfer of functions and relocation of personnel to a backup location for the OSC, in the event of evacuation, is being addressed in a revision to procedure EM-102, "Activation, Operation and Staffing of the Technical Support Center and Operational Support Center."
14. a. **Recommendation:**
- Providing dedicated telephone lines from the OSC to the TSC and to the control room.
- b. **Response:**
- Provisions have been made in the communications equipment plans for the permanent TSC facility to install a designated communication link from the OSC to the TSC and to the control room.
15. a. **Recommendation:**
- Providing adequate supplies for personnel present in the assembly areas and OSC.
- b. **Response:**
- Assembly areas are defined as pre-evacuation mustering locations, not evacuation areas. Assembly areas and the OSC are only used prior to reaching site evacuation criteria. Florida Power Corporation contends that supplies for personnel present in these areas would not be used and are, therefore, not necessary.

16. a. **Recommendation:**

Establishing radio communications between the IEOF and licensee mobile monitoring teams. A minimum of three dial telephones and one HPN telephone at the IEOF should be designated for use by the NRC.

b. **Response:**

The Environmental Monitoring Teams are provided with 2-way radio communications with the TSC. The TSC receives the results of surveys and transmits the results to the Emergency Operations Facility (EOF) for coordination of analysis, as appropriate, with the Mobile Environmental Radiological Laboratory (MERL) survey results. Section 13.2.2 of EM-100 addresses the communication links associated with the Environmental Survey Team.

The Interim EOF (IEOF) presently has one dial telephone and the HPN telephone designated for NRC use. Due to the limitations of the telephone supply services to the IEOF, no more than one commercial telephone line can be dedicated for NRC use. The permanent EOF will have adequate telephone trunk service to provide the needed three commercial lines for NRC use.

17. a. **Recommendation:**

Establishing implementing procedures for the operation of the IEOF or appropriate references to standing operating procedures in NSSD-17 or NSSD-24.

b. **Response:**

The overall operational setup of the EOF does not necessitate the issuance of a procedure to complete. The radiological monitoring equipment will have set-up and operational information for the user associated with each instrument.

NSSD-17 and NSSD-24 have been modified and issued under new designations, NL-19 and NL-18, respectively.

18. a. **Recommendation:**

Providing radiological protection for IEOF personnel and a radiation monitoring system in the IEOF.

b. **Response:**

Specific training will be given to the appropriate EOF personnel in order to provide radiological protection at that facility. Radiation monitoring equipment for the EOF has been ordered and will be placed at the facility as soon as it is received, catalogued, and calibrated. The training provided will be specifically tailored around the equipment to be utilized at the EOF.

19. a. **Recommendation:**
- Providing a coordinated, clear and concise assembly area policy and procedure in EM-100 and EM-205.
- b. **Response:**
- Florida Power Corporation concurs with this recommendation. The confusion between assembly areas and evacuation areas has been clarified in the appropriate procedures which are awaiting final review for implementation.
20. a. **Recommendation:**
- Providing emergency/protective equipment and supplies for Assembly Area Supervisor(s) and plant personnel at the assembly areas.
- b. **Response:**
- The term "assembly area" is not used to denote an area for final monitoring and accountability prior to personnel release from the Owner Controlled Area. Such an area is now referred to as an "evacuation area." Supplies for monitoring and personnel decontamination are available at the CR-3 Primary Evacuation Area. These supplies are portable and can, therefore, be relocated to the Secondary Evacuation Area as necessary.
21. a. **Recommendation:**
- Providing alternative Emergency Assembly Center (EAC) locations that protect plant personnel against inclement weather.
- b. **Response:**
- Alternate (Secondary) Evacuation Area locations will be designated in EM-205, "Assembly, Evacuation and Personnel Accountability of CR-3 Personnel During Emergencies." Two of these locations provide protection for plant personnel against inclement weather.
22. a. **Recommendation:**
- Including, on the decontamination kit inventory, lists in RP-219 for the in-plant station and the permanent TSC, specific amounts of decontaminants such as versene, carbasol and potassium permanganate which are referred to in the procedures.
- b. **Response:**
- Florida Power Corporation concurs with this recommendation and will evaluate this concern to determine an appropriate resolution.

23. a. **Recommendation:**

Maintaining the portable decontamination kit at the EAC after the permanent TSC is established and providing a suitable source of water and provisions for both liquid and solid radioactive waste at the EAC.

b. **Response:**

The decontamination kit currently located at the EAC (Primary Evacuation Area) will remain after the permanent TSC facility is established. Due to the short distance between the Primary Evacuation Area and the TSC, concerns for radioactive solid waste and contaminated individuals requiring a source of water will be dealt with using the facilities and supplies located in the permanent TSC facility.

24. a. **Recommendation:**

Providing assurances to indicate that emergency personnel have the required expertise when slide rules are supplied in emergency kits, to perform the required calculations using slide rules provided in emergency kits.

b. **Response:**

Florida Power Corporation is of the opinion that this recommendation is not of great concern, as the calculations involved are not complex (i.e., multiplication and division) and can be performed manually should personnel not possess slide rule expertise. Notwithstanding, calculators will be purchased and supplied in the emergency kits.

25. a. **Recommendation:**

Marking or labeling emergency kits in such a manner that each kit can be distinguished from another to prevent confusion in kit selection, and labeling kits to indicate how many parts constitute each kit ("1 of 3", etc.)

b. **Response:**

Florida Power Corporation concurs with this recommendation and will label the kits as suggested above ("1 of 3", etc.).

26. a. **Recommendation:**

Clarifying the needs of emergency kits that require additional support items (e.g., the Environmental Survey Team kit contains an electric motor-driven air sampler but not an electrical generator, gas can, oil can, etc.). Consider clearly marking those items not contained within that kit proper, and indicating what additional support equipment is required for the kit and where it can be located.

b. **Response:**

Florida Power Corporation concurs with this recommendation and will denote on the emergency kit inventory listing the need and location for support items.

27. a. **Recommendation:**

Considering additional equipment for the kits at the EAC to include stopwatches, rulers, and tape measures. In addition, consider including in the Radiation Emergency Team kit at the EAC, high range pocket dosimeters (200 R) and a complete set of floor plans for CR-3.

b. **Response:**

An evaluation of kit contents will be made to identify additional items which may be of use. Maps of plant areas are currently included in the Radiation Emergency Team kit. The 0-200R dosimeters will be included in the Radiation Emergency Team kit when they become available.

28. a. **Recommendation:**

Providing an emergency kit and equipment for the IEOF.

b. **Response:**

Florida Power Corporation feels that the present locations for the Emergency Kits and equipment adequately meet the requirements for Emergency Preparedness. The addition of a kit in the EOF is not deemed feasible at this time.

29. a. **Recommendation:**
- Providing survey instrumentation that has the capability to detect and measure particulate activity in air of E-09 micro curies per cubic centimeter or radioiodine concentrations in air of at least E-07 micro curies per cubic centimeter under field conditions, in any kind of weather, in the presence of noble gases and resulting background radiation.
- b. **Response:**
- Current survey instrumentation is adequate to meet the stated or other required sensitivity levels. Additional procedural guidance has been implemented to denote acceptable background levels for achieving the required sensitivities.
30. a. **Recommendation:**
- Implementing procedures to insure proper care, service, and maintenance of the onsite emergency vehicles.
- b. **Response:**
- Florida Power Corporation considers the current method adequate to accomplish acceptable results. Increased emphasis on implementation will be applied.
31. a. **Recommendation:**
- Including decontamination procedure RP-103 in the EAC decontamination kit.
- b. **Response:**
- A copy of the decontamination procedure (RP-103) is currently on the listing contained in RP-219 for inclusion in the decontamination supplies in both the ChemRad area and the Primary Evacuation Area (EAC).
32. a. **Recommendation:**
- Changing seismic provisions in EP-109 to conform with those required in EM-100 and EM-203, or else changing the EM-100 and EM-203 provisions to reflect those in EP-109.
- b. **Response:**
- EM-100 and EM-203 were previously revised to reflect the seismic provisions in EP-109.

33. a. **Recommendation:**

Determining the impact of the orientation of the temperature probes in insulation, and making the necessary corrections.

b. **Response:**

Research into the temperature instrumentation installed on the meteorological tower indicates that the probes are shielded. The shield consists of a Model 01-6-1 motor-asperated temperature shield which reduces the solar radiation temperature error to 0.2°F at times of maximum solar radiation. Further evaluation of the actual temperature instrumentation shields installed on the tower will be done and, if it is determined that the above listed shields are not in place properly, steps will be taken to remedy the condition.

34. a. **Recommendation:**

Establishing procedures for testing each communication system and warning system on a specified interval.

b. **Response:**

The following is a list of communications and warning systems and associated testing:

- 1) Plant Public Address - Routine day-to-day use.
- 2) PAX - Routine day-to-day use.
- 3) Control Room/TSC/EOF dedicated tie-lines - no checks performed.
- 4) Commercial Telephones - Routine day-to-day use.
- 5) NAWAS - Daily Roll Call.
- 6) LGR - Every other week, initiate communications check.
- 7) ENS - Daily check by NRC.
- 8) HPN - No checks performed.
- 9) FPC FM radio - No checks performed.
- 10) EWNS - Outlined in EM 100 Section 9.4.2 and performed by the local counties.

The commercial telephone system operational checks are considered satisfied by the day-to-day use of the system. The Control Room/EOF/TSC tie-line is being evaluated as to the best method to perform a system test. The Florida Power Corporation FM radio system is also being evaluated as to the best method to establish operability tests. The incorporation of the formal tests into a procedure will be evaluated on a case-by-case basis considering the Department within Florida Power Corporation performing the test.

35. a. **Recommendation:**

Providing direct telephone access to the individual responsible for making offsite dose projections to the NRC in the event of a radiological emergency. Establishing provisions for this access in the (interim) TSC and EOF until such time that the NRC Health Physics Network is installed.

b. **Response:**

When the permanent TSC facility is occupied as the TSC, the concern of this recommendation will be resolved. (Refer to Item 8 response.) The HPN is currently available in the interim EOF.

36. a. **Recommendation:**

Identifying which telephones are available for NRC use in the TSC, OSC, and EOF.

b. **Response:**

The areas or rooms assigned for NRC use during an emergency will be labelled as such and the phones in that area will be considered as their dedicated phones. The OSC does not have provisions for commercial telephone service; only in-plant communications are required.

37. a. **Recommendation:**

Implementing procedures to assure that the Plant Emergency Vehicle (PEV) will be used only for transportation of injured plant personnel.

b. **Response:**

The primary function of the PEV is, and will continue to be, to transport injured plant personnel to offsite medical facilities. However, the PEV is equipped with two-way radio communications to the plant site and it is not felt necessary to procedurally control its use.

38. a. **Recommendation:**

Equipping the Emergency Survey Vehicle (ESV) and PEV in accordance with RP-219 and EM-100 and verifying their operability.

b. **Response:**

The operability of these vehicles is currently being evaluated weekly, as delineated in RP-219. The PEV is currently equipped per the listing in RP-219. The ESV is awaiting modification and painting prior to accommodating the Environmental Survey Team supplies and equipment.

39. a. **Recommendation:**
Rectifying the existing EM series of emergency procedures format inconsistencies.
- b. **Response:**
This concern will be resolved after the next normal review cycle outlined in the Technical Specifications.
40. a. **Recommendation:**
Simplifying the existing dose assessment procedure (EM-204) for use of the control room staff.
- b. **Response:**
The existing dose assessment procedure (EM-204) has recently been revised to resolve this concern. It is currently in the review cycle.
41. a. **Recommendation:**
Specifically designating Emergency Action Levels for protection of onsite personnel (i.e., relocation, sheltering and/or evacuation).
- b. **Response:**
The plant implementing procedures are currently being revised to require site evacuation of non-essential personnel whenever a Site or General Emergency classification is declared.
42. a. **Recommendation:**
Documenting the availability and condition of the primary Emergency Survey Vehicle including the presence of a vehicle radio for survey team communication.
- b. **Response:**
The Emergency Survey Vehicle is now available. Provisions for a back-up vehicle are available when the primary vehicle is out of service. A radio will be installed in the ESV; portable transceivers will be used in the interim.

43. a. **Recommendation:**
Documenting the location of the emergency kit for environmental survey team.
- b. **Response:**
This concern is addressed in EM-210 which states: "These supplies are available in an emergency kit located in the TSC when not provided in the ESV".
44. a. **Recommendation:**
Listing the transceiver(s) in the equipment section of procedure EM-208.
- b. **Response:**
EM-208 is being revised to incorporate this recommendation.
45. a. **Recommendation:**
Training the representatives on each Chem Rad shift on all aspects of the post-accident sampling and analysis procedures.
- b. **Response:**
Trained individuals will be available to accomplish post-accident sampling and analysis per the time constraints established in EM-100.
46. a. **Recommendation:**
Establishing specific exposure limits for members of each emergency team.
- b. **Response:**
Implementing procedures are being revised to include exposure limits for each emergency team.
47. a. **Recommendation:**
Including higher range dosimeters in appropriate emergency kits (highest range now is 5R) to correspond to levels which may be reached during lifesaving activities.
- b. **Response:**
This concern has been addressed in Item 27.

48. a. **Recommendation:**
Establishing and marking the primary and secondary evacuation routes onsite to the appropriate offsite assembly areas.
- b. **Response:**
Signs have been made which designate the Primary or Secondary Evacuation Area. Florida Power Corporation does not concur with the recommendation to establish marked routes, as this could add to confusion in the event an alternate path or Evacuation Area is chosen by the Emergency Coordinator.
49. a. **Recommendation:**
Posting the designated onsite and offsite assembly areas.
- b. **Response:**
Signs are being made to accomplish this for on-site assembly areas. (See Item 48 for evacuation area).
50. a. **Recommendation:**
Clarifying where the TSC assembly area is located.
- b. **Response:**
This concern will be resolved with the move into the permanent TSC facility.
51. a. **Recommendation:**
Establish and implement a coordinated traffic evacuation plan for CR-1, 2, 3, 4, and 5. Consider establishing the priorities of lane use on the plant access road.
- b. **Response:**
Meetings with the Site and Corporate Security Management indicates the need for further evaluation of a unified site traffic plan prior to establishing designated patterns.
52. a. **Recommendation:**
Providing guidance in EM-205 or reference to EM-209 on what actions are to be taken when searching for unaccounted personnel.
- b. **Response:**
This recommendation will be evaluated and appropriate procedure revisions will be made based on the evaluation.

53. a. **Recommendation:**

Including in the ChemRad Protection Manager's responsibility, in Section 6.3.3 of EM-100, the requirement to select reentry search teams for unaccounted personnel.

b. **Response:**

EM-100 and EM-209 (Re-entry Procedure) were previously revised to reflect this recommendation.

54. a. **Recommendation:**

Using the PA system initially to locate/call the unaccounted-for personnel.

b. **Response:**

This recommendation will be evaluated in conjunction with Item 52.

55. a. **Recommendation:**

Specifying action levels or specific incidents (such as facial contamination) which will require further assessment (e.g., whole body count or bioassay).

b. **Response:**

RP-103 addresses this concern and will be used during an emergency.

56. a. **Recommendation:**

Including in EM-208 a reference to RP-103, with regard to ChemRad assistance when decontaminating an open wound or body opening.

b. **Response:**

Since the Radiation Emergency Team is composed of qualified ChemRad Technicians only, it is not felt necessary to reference a procedure that they know exists and use routinely.

57. a. **Recommendation:**

Providing references to coordination and notification of CR-1, 2, 4 and 5 Security Forces to assist in CR-3 onsite (out-of-plant) evacuation, traffic control, assembly area, and accountability.

b. **Response:**

Coordination and notification links among on-site departments are being addressed in revisions to EM-205, EM-211, and EM-214.

58. a. **Recommendation:**
- Changing the procedure in RP-219 to add another column to the inventory sheet of each separate equipment list titled "Operability Check" to assist in the operational check of the equipment.
- b. **Response:**
- This recommendation will be evaluated and appropriate procedure revisions implemented to resolve this concern.
59. a. **Recommendation:**
- Indicating when calibration dates are specified, the exact day, month, and year on the calibration sticker placed on the instrument.
- b. **Response:**
- A label with the exact day, month and year of calibration is now placed on instruments which have passed the applicable calibration tests.
60. a. **Recommendation:**
- Implementing procedures to insure that perishable supplies such as batteries are maintained at an operational level.
- b. **Response:**
- Florida Power Corporation concurs with this recommendation and will perform an evaluation to establish an adequate method of control.
61. a. **Recommendation:**
- Providing coordination and assistance to Seven Rivers Hospital in establishing procedures for the handling of contaminated patients from CR-3.
- b. **Response:**
- Florida Power Corporation has contacted Seven Rivers Hospital and made arrangements to provide the annual training program and aid the Hospital Staff in establishing appropriate procedures for handling contaminated patients.