Denwood F. Ross, Jr.
Reactor Project Branch #3, DRL
THRU: Dudley Thompson, Chief
Operational Safety Branch, DRL
A. J. Rizzo
Operational Safety Branch, DRL

January 2, 1968

CRYSTAL RIVER, DOCKET NOS. 50-302 and 50-303

Ref (A) Memorandum from Peter A. Morris "DRL Review Areas for Florida Power Corporation's Crystal River Units 3 and 4; Docket Nos. 50-302 and 50-303." Dated October 2, 1967

This will summarize my verbal comments relative to the review areas assigned by ref (A) to Reactor Operations. The areas considered were:

a. Technical competency of the applicant, as owner, operator and construction manager.

b. Technical competency of construction contractors.

c. Emergency plans for units 3 and 4.

a. Technical competency of the applicant as owner, operator and construction manager.

1. Owner - The basic engineering staff and organizational structure proposed indicates that FPC will be technically competent as owner.

2. Operator - Based on the organizational structure shown in section 12 and assuming that the five shift personnel indicated are for operation of both plants the shift operating crew is inadequate. The shift crew consists of a shift supervisor, watch engineer, control center operator, assistant control center operator and one equipment operator. At present, single plant crews consist of a minimum of four not including health physics technicians and instrumentation technicians that may be assigned on a shift basis. Further clarification of the dual plant operational mode is required. In addition, it is necessary to determine the actions required by the shift crew in the event of a design basis accident in one plant while assuming that the second plant remains operational. On this basis alone the crew size indicated would be inadequate. It is therefore necessary that the applicant define his proposed site operational modes in the normal and abnormal cases before a finding of adequacy of the proposed operating organization can be made for dual plant operation. In so doing it is essential that

OFFICE ▶						
SURNAME ▶				8003240701		B
DATE ▶						

Form AEC-318 (Rev. 9-53)

U.S. GOVERNMENT PRINTING OFFICE : 1966—O-214-629

the duties of each crew member be clearly defined.

The fundamental organizational structure proposed for plant operation is satisfactory. However, it is important to recognize that the plant superintendent, assistant plant superintendent, maintenance engineer, operations engineer and technical support engineers will be responsible for both plants. The total complement of 59 persons for this staff is the usual number designated for operation of a single facility. Although the basic structure is organizationally satisfactory, the number of people in each group is marginally satisfactory and does not appear to consider normal unavailability of key personnel due to sickness or other causes. For dual plant operation the staff will have to be increased, prior to achieving full operation of both plants. It is recognized that operation of unit #4 is expected to follow unit #3 by about two years. The organization as proposed is satisfactory for initial single plant operation of unit #3.

3. Construction Manager

A review of section 1.6, section 12 and appendix 1A indicates that Florida Power Corporation can act as its own construction manager. Specifications for major equipment and systems will be furnished by the A/E (Gilbert Associates). Major equipment will be procured by Florida Power Corporation, Purchasing Dept. based on specifications prepared by the A/E. BCW will design, manufacture, and deliver to the site the complete nuclear steam supply system and will furnish technical consultation during erection, initial fuel loading, testing, and initial startup of the nuclear steam supply system.

b. Technical competency of the construction contractor:

The PSAR does not indicate the detail breakdown of the construction contractors to be used. However, under detailed supervision of Florida Power Corp. construction engineering staff and with engineering management assistance from Gilbert Associates Inc., it is expected that satisfactory surveillance with assurance of meeting design specifications during construction can be achieved. As indicated in appendix 5D "...Final responsibility for establishing quality control procedures and enforcing such procedures belongs to Florida Power Corporation".

c. Emergency Plans for unit #3 and #4

The applicant briefly notes that emergency plans and procedures will be prepared and that appropriate drills will be conducted. No mention is made as to the scope and extent of such planning required during the construction phase. It is recommended that a brief outline be prepared of the proposed Florida Power Corp. Emergency Plan considering the actions required at the second site while the design basis accident has occurred at the first reactor. In particular design features should be reviewed to assure that the proposed operating staff for the dual

facility can in fact implement the proposed plan. The plan should provide the applicant's operational philosophy in regard to operation of the unaffected plant subsequent to the accident. The outline should provide information on the following:

1. Basis for emergency planning.

2. FPC Emergency organization with brief description of responsibilities and authority.

3. In plant instrumentation to be used for identification of the extent and nature of an off-site release.

4. Coordination with local, state, federal authorities.

5. Medical provisions made for treating and handling contaminated personnel.

6. General concept of recovery planning subsequent to design basis accident at one facility.

OFFICE ▶						
SURNAME ▶						
DATE ▶	1/2/68					