

February 15, 1972

Mr. Muntzing:

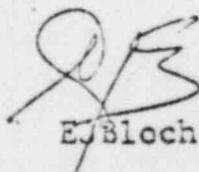
Attached is a summary of the Crystal River problem and supporting detail. There are several factors contributing to the extensive list of questions and the dilemma which the applicant apparently faces:

1. Issuance of the construction permit with many open issues which were to be resolved during the construction period. (Unfortunately we face this same problem to varying degrees with other CPs that have been issued during the past several years and it will take some time to work out from under it.)
2. A determination by Florida Power Corporation that the FSAR would completely replace the PSAR and constitute the complete record for the plant.
3. An unusually early submission of the FSAR, some 33 months before the plant is scheduled for fuel loading. I suspect that many design details were still unavailable at that time with the result that the FSAR was inadequate.

The only course of action I can suggest at this point is:

1. Where the applicant feels that the question has been answered in the PSAR, ask him to identify the specific section. If we agree that the PSAR adequately answers the question, it can be incorporated into the FSAR by reference.
2. Where the applicant feels that the question has been answered in a licensing review of a similar B&W reactor, ask him to identify the reactor and it can be incorporated into the FSAR by reference. This is a rather common practice.
3. With respect to the remaining questions, meet with the applicant in an effort to reach a clear understanding of what is needed and why. Where appropriate, we could suggest to the applicant how best to handle his response.

If you agree with the above approach, we will contact the applicant and proceed accordingly.


EJBloch

8003 240 653

CRYSTAL RIVER UNIT 3 - HIGHLIGHTS OF REVIEW

The Construction Permit for Crystal River Unit 3 was issued September 25, 1968. The public hearing was uncontested.

The FSAR was received on January 25, 1971. Shortly afterwards Florida Power Corporation was informally notified that our review would not commence before mid-year. The formal review started August 1, 1971. The review schedule including start date was based upon ACRS review desire of 9-12 months prior to fuel loading. The importance of this lead time was demonstrated for Three Mile Island when ACRS refused to review the application because of too much lead time before fuel loading. This review, including a two month delay for their response to these questions, is still scheduled to be completed consistent with projected fuel loading date of September 1973.

The following is quoted verbatim from the Florida Power Corporation letter transmitting the FSAR:

"Amendment No. 11 is the Final Safety Analysis Report and is intended to replace in its entirety the Preliminary Safety Analysis Report including Amendments No. 1 through 10."

At the time the review plan was being prepared the subject of applicable material was discussed. Based on the above statement it was decided that our review would be based upon the FSAR and subsequent amendments.

The above statement was brought to Mr. Joel Rodgers' attention at an informal meeting on November 30. (Roy Snapp accompanying).

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The FSAR is deficient in the extent of its coverage of many topics. In today's atmosphere of application quality, this FSAR is marginally acceptable to unacceptable. The applicant is responsible for being aware of current safety concerns of the staff following issuance of a construction permit. If Florida Power Corporation had done so, and had followed the review of recent operating license applications, they would not have been surprised by the extent and coverage of our question list especially in light of the quality of their FSAR. It is noted that this question list covers only part of our review of the FSAR. Questions on material from five more chapters and the Technical Specifications are still to be forwarded.

Two meetings have been held with the applicant since commencing active review of the application. Meetings were held on September 21 and December 17, 1971. At these meetings items of known concern were identified to the applicant.

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Specific Topics

Water Level During Hurricane - Staff hydrologists have consistently maintained that the analysis reported in the FSAR is inadequate. We believe that the maximum level of water should be about 10 feet higher than reported in the FSAR. Such a difference may require some facility modifications. This concern was discussed in detail with the applicant at the September meeting and identified as the most important safety problem for their plant. This was reiterated and emphasized with the applicant at the December meeting.

Grouting - Following CP issuance the grouting program for Crystal River Unit 3 was modified by Amendment No. 7 to the PSAR. Apparently there was no staff or consultant review of this modification at that time. Our preliminary assessment indicates that the grouting is adequate, but because of the significance of this item at CP stage we believe the record should be set straight and completed. Asking for information relating to the grouting procedures at this time is a legitimate request since the FSAR is incomplete in this respect.

Repeating Questions - As stated earlier our review is based on the FSAR and subsequent amendments. Although the subject material may be the same now as questions asked during CP review, the thrust or intent of the questions should be different, i.e. design details instead of design bases. Additionally, the staff Safety Evaluation identified a number of areas which would require post CP review. For Crystal River Unit 3 these include RSD progress, hurricane protection, seismic and blowdown forces on reactor internals, control rod drive mechanisms, separation of control and safety instrumentation, reactor building fan coolers, failed fuel element detection, pressure vessel thermal shock, quality assurance program, dynamic analysis of structures, equipment, and piping, sampling of Cadweld Splices and changes to containment design. Questions on these subjects have been included in our information request.

More Experienced Operating Staff - Recently, the DRL Operational Safety Branch indicated that some additional staffing with reactor operator experience would be required of the applicant for about the first six months of operation. This staffing was deemed necessary after reviewing the qualifications of the applicant's operating staff as presented in the FSAR. Although this staff is well educated and trained and deep in experience in fossil plant operation, they are deficient in nuclear plant experience.

In a telephone call on February 3, 1972 the applicant was informed of this. We further suggested that a convenient manner of doing this would be through Babcock and Wilcox, their NSSS vendor. Florida Power Corporation misunderstood this conversation as they apparently interpreted our remarks to require these personnel to be part of their staff. This information was transmitted internally to give the applicant as much lead time as possible since the next written communication with Florida Power Corporation is scheduled for early March.

Post CP Safety Concerns - Between issuance of CP and review of the OL application, new safety concerns arise and guidance is promulgated through Regulations, proposed Regulations, design criteria, safety guides, information guides, ACRS letters and DRL position papers. A continuing problem is how to apply these new positions to facilities under construction. It is our position that questions from the staff and answers from the applicant provide a dialogue which forms the basis for making backfit determinations. In addition this dialogue provides a means to suggest additional equipment, minor design changes, or changes in proposed operating procedures within reason with the applicant.

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General Reasons for Questions

Questions to determine design details of components and systems to meet criteria and design bases are appropriate at OL review.

Questions associated with new safety concerns - see above.

Some questions aimed at providing more detailed information of safety related concerns to provide a more complete basis for making determination.

Questions and answers provide documentation on the public record of current staff and general safety concerns of this specific application!

We try to anticipate some potential pitfalls which have arisen in the past at public hearings.

Generally, the Crystal River 3 questions can be segregated into three categories:

1. Thirty-three questions that identify technical issues. Some of these are problems that were identified as requiring resolution subsequent to issuance of the construction permit; others are technical issues relating to new knowledge or safety criteria that have become available subsequent to the filing of the FSAR.
2. Seventy-six (76) questions relating primarily to documenting information on how designs are being implemented. These are necessary in order to have a complete record of this license application. Until this documentation is received, we are unable to determine whether the designs developed are adequate.
3. Ten questions of a general nature requesting clarification of information submitted.

Florida Power Corporation is actively involved in state licensing of the large Anclote fossil plant. Within the past few weeks they have been testifying at public hearings on environmental concerns for the plant. During the past few months they have had to submit reasons why construction should not be suspended on Crystal River Unit 3 for AEC. They were also involved in preparing a three volume Environmental Report for this plant which was submitted to the AEC on January 4, 1972. They are presently involved in the PSAR preparation for Crystal River Unit 4. This is scheduled for submission on May 1, 1972. All of this work is in addition to their effort connected with the Operating License review of Unit 3. It is my opinion that Florida Power Corporation's licensing staff is extended ^{far} beyond their present resources and that the Crystal River Unit 3 Request for Additional Information involved demands which may interfere with their other licensing efforts. Their complaint is probably a reaction from frustration as much as ^a legitimate, well-founded complaint.