



**Florida
Power**
CORPORATION

December 23, 1985
3F1285-17

Director of Nuclear Reactor Regulation
Attention: Hugh L. Thompson, Jr.
Director, Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Crystal River Unit 3
Docket No. 50-302
Operating License No. DPR-72
Licensed Operator Regualification and
Replacement Operator Training Programs
Additional Information

Dear Sir:

Florida Power Corporation (FPC), with this letter, is responding to the NRC's November 5, 1985 request for additional information on FPC's Licensed Operator Regualification and Replacement Operator Training Programs (letter No. 3N1185-05 received 11/12/85). The NRC's request is related to the following specific FPC submittals:

1. FPC letter March 15, 1985, (3F0385-12) G. R. Westafer to J. Nelson Grace, re: Licensed Operator Regualification Training Program.
2. FPC letter July 23, 1985, (3F0785-27) G. R. Westafer to Hugh L. Thompson, Jr., re: Replacement Operator Training Program Revision.
3. FPC letter July 23, 1985, (3F0785-15) G. R. Westafer to Hugh L. Thompson, Jr., re: Licensed Operator Regualification Training Program Commitment Clarification.
4. FPC letter July 23, 1985, (3F0785-16) G. R. Westafer to Hugh L. Thompson, Jr., re: Replacement Operator Training Program; NUREG-0737, Items 1.A.2.1(4) and II.B.4.

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5. FPC letter July 23, 1985, (3F0785-13) G. R. Westafer to Hugh L. Thompson, Jr., re: Instructor Qualifications Clarification.

The following Training Department Procedures (TDP's) are utilized by FPC in responding to the specific queries and are therefore included as references, for information only, with this transmittal.

REFERENCES:

- A. TDP-109, Rev 4, Training Records Management
- B. TDP-112, Rev 0, Training Waivers
- C. TDP-117, Rev 1, Scheduling and Tracking Training
- D. TDP-201, Rev 3, Non-Licensed Operator Training Program
- E. TDP-202, Rev 3, Replacement Operator Training Program
- F. TDP-203, Rev 4, Licensed Operator Requalification Training Program
- G. TDP-209, Rev 1, Operations Instructor Qualification Program

The attached ADDITIONAL INFORMATION RESPONSE is provided with confidence that the current implementation of the Licensed Operator Requalification Training and Replacement Operator Training Programs meet applicable requirements. We note, that while the NRC's Standard Review Plan, Section 13.2.1, Part II and/or Section 13.2.2, Part II (Acceptance Criteria), provides review guidance and acceptability criteria, they are not substitutes for Regulatory Guides or Commission Regulations.

EC Simpson for G.R. Westafer

G.R. Westafer
Manager,
Nuclear Operations Licensing and Fuel Management

ERC/LCK/GRW/dfs

cc: Dr. J. Nelson Grace
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Enclosure: TDP References A thru G
ADDITIONAL INFORMATION RESPONSE

ADDITIONAL INFORMATION RESPONSE

1.0 Licensed Operator Requalification Training (March 15, 1985, letter 3F0385-12)

FPC OVERVIEW:

The Licensed Operator Requalification Training Program description was reassembled and submitted per request of Region II (March 15, 1985) and subsequently reincorporated in the FSAR. It is not intended to describe the program to the detail and depth implemented by the Training Department Procedures (TDP's). For this reason, the appropriate TDP and respective part/section number is referenced in our responses to provide additional clarifying information. The referenced TDP's are provided for information only.

NRC QUERY: 1.1

In Section 1 of the Requalification Training Program description, the licensee states that the content of the lecture sessions is based on the audit and annual examinations. Please provide clarification to address the use of examination results to determine the scope and depth of coverage only and not content. The lecture series curriculum outline or syllabus should be submitted to show that requalification program lecture content is designed to meet the requirements of 10 CFR 55 Appendix A and applicable portions of NUREG-0737.

FPC RESPONSE 1.1

- a. Please refer to Training Department Procedure (TDP) 203, Section 6.1.1.4 for clarification on using the results of the annual requalification written exam to determine the breadth and depth of topic coverage for the lecture series portion of the Requalification Program. Note that in FPC's description of the program, the term "Content" is used to encompass the attributes of sub-topics, breadth, and depth relative to topic coverage.
- b. Please refer to TDP-203 Section 6.1.1.1 for the Requalification Program curriculum outline. It meets the requirements of 10CFR55 Appendix A and applicable portions of NUREG-0737.

NRC QUERY: 1.2

In Section 4 of the program description, the licensee should clarify that annual requalification examinations include written examinations and systematic observations and evaluation. Parentheses should be deleted.

FPC RESPONSE 1.2

- a. Sections 4.1 and 4.2 of our 3/15/85 submittal "Licensed Operator Requalification Program" description do address both aspects of the requalification program, that is, written exams as well as systematic observation and evaluation.

Additionally, please refer to TDP-203 Section 6.1.3 which clearly indicates that written examinations as well as systematic observation and evaluations are integral parts of the Requalification Program.

- b. FPC intends to issue a revision to the "Licensed Operator Requalification Program" description, submitted on 3/15/85, in early 1986. This revision will more clearly introduce Section 4 of the program description.

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NRC QUERY: 1.3

The licensee should provide clarification in Section 5.1.2 that topics for preplanned and regularly scheduled lectures are based on 10 CFR 55, Appendix A requirements. Only depth and scope of coverage but not topic selection may be determined based on annual examination results.

FPC RESPONSE 1.3

In order to maintain consistent use of terminology, the next Licensed Operator Requalification Program description revision will change "topic" to "content" in the lead-in paragraph to Section 5.1.2.

In addition, refer to the response 1.1.

NRC QUERY: 1.4

It is not clear how a preplanned lecture series is scheduled taking into account unanticipated events. How does the licensee schedule anything accounting for unanticipated events?

FPC RESPONSE 1.4:

The query apparently relates to the lead-in paragraph to Section 5.2. This paragraph simply indicates a need to "account" (or provide) for some measure of "unanticipated events" which can be expected to be disruptive to a preplanned lecture series schedule.

Requalification Training, as is all training, is scheduled in accordance with TDP-117. It is planned that there will be five training cycles for each of the six shifts, which will require only thirty weeks of the available fifty-two weeks, thereby, allowing contingency for unforeseen events. This flexibility will accommodate some measure of schedule slips and unanticipated occurrences.

NRC QUERY: 1.5

Licensed personnel may not be exempted from attendance at all requalification program lectures since a requalification program based solely on self-study is not an acceptable substitute for a lecture series per 10 CFR 55 Appendix A. The licensee should clarify Section 5.3 to describe the method used to ensure that an individual's entire requalification program is not accomplished through self-study and that lecture topics are covered as required by 10 CFR 55 Appendix A.

FPC RESPONSE 1.5:

Please refer to TDP-203 Section 6.1.1.5 for clarification on program waivers and self-study. As the procedure indicates, no more than 50% of the required lecture series may be completed by self-study. This is verified by the Nuclear Operations Training Supervisor as stated in TDP-203 Section 6.6.3. FPC does not agree that the program description needs to be amplified since the detailed implementation is controlled by the TDP.

NRC QUERY: 1.6

Sections 6.3.1 and 6.3.1.1 do not describe how the Operational Proficiency portion of training will be evaluated to comply with requirements for "written examinations which provide a basis for evaluating knowledge of abnormal and emergency procedures" per 10 CFR 55 Appendix A 4.b. The licensee should clarify how the Operational Proficiency Training Program is designed to provide coverage of required information taking into consideration the results of annual examinations as well as plant drills.

FPC RESPONSE 1.6:

TDP-203 Section 6.1.2.3 clarifies the Operational Proficiency Training portion of the Requalification Program. The content of this portion is relatively constant as indicated by the requirements checkoff lists found in Attachment 5Q1-5Q4.

Please refer to TDP-203 Section 6.1.3.1 "Annual Written Examination" which specifically complies with the 10CFR55 Appendix A 4.b requirement for "written examination which provides a basis for evaluating knowledge of abnormal and emergency procedures." Plant drills, simulator evaluations, and semiannual evaluations are also used to assess operator competency.

NRC QUERY: 1.7

The licensee should provide clarification in Section 6.3.1.1 that procedures are reviewed on a regularly scheduled basis per 10 CFR 55 Appendix A 3.d.

FPC RESPONSE 1.7:

Please note, as clarification, that the "Licensed Operator Requalification Program" description (submitted to the NRC on 3/15/85) Section 6.3.1 leading into Section 6.3.1.1, requires that all AP's and EP's and applicable normal operating and administrative procedures be reviewed annually.

Additionally, please refer to TDP-203 Section 6.1.2.3 which states that "normal operating procedures, all abnormal procedures (AP's), all emergency procedures (EP's), and applicable administrative procedures" are reviewed on an annual basis. These procedure reviews have been divided into quarterly requirements for convenience and are documented using TDP-203 Attachments 5Q1-5Q4.

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NRC QUERY: 1.8

The licensee should clarify whether and how trainees will be evaluated as required for the instructional sessions as described in Section 6.3.1.1.

FPC RESPONSE 1.8:

The instructional sessions on-shift are an integral part of the Requalification Program. Refer to TDP-203 Section 6.1.2.3 for clarification on how these instructional sessions are evaluated.

Additionally, the trainees' understanding of the information covered by these instructional sessions is evaluated through drills, simulator evaluations, lecture series quizzes, and the annual written examination.

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NRC QUERY: 1.9

The licensee should clarify whether and how the trainees will be evaluated for the plant drills as described in Section 6.3.2.

FPC RESPONSE 1.9:

Please refer to TDP-203 Section 6.1.2.3 and Attachment 5R, which explains how trainees are evaluated for plant drills; also, recognize that drills and evaluations are performed on the simulator as well, where evaluations of trainee performance are required. Additionally, the knowledge required to perform well on drills is also tested and evaluated through semiannual evaluations, lecture series quizzes, and the annual written examination.

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NRC QUERY: 1.10

The licensee should clarify how the trainees will be evaluated for the feedback of operating experience training as described in Section 6.3.3.

FPC RESPONSE 1.10:

The trainees receive training on industry experience and operational feedback as explained more fully in TDP-203 Section 6.1.1.2, Section 6.1.2.3, and Attachment 5. This experience and feedback are also factored into procedure revisions, the training of which is covered as described in TDP-203 Section 6.1.2.3. The evaluation of this training occurs in the simulator evaluations, semi-annual evaluations, lecture series quizzes, and the annual written exam.

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NRC QUERY: 1.11

The licensee should describe the criteria to be used for granting exemptions from portions of the Requalification Training Program for backup licensees as described in Section 6.4.

FPC RESPONSE 1.11:

TDP-203 Section 6.2 "Backup Licensees" refers to TDP-112 which describes in detail how "Training waivers" and exemptions are approved.

NRC QUERY: 1.12

Sections 9.1 and 9.2 make a distinction between requalification training for instructors maintaining an active license and certified instructors. All certified and licensed instructors must be enrolled in appropriate Requalification Training that meets the requirements of 10 CFR 55 Appendix A, including the required reactivity control manipulations. The licensee should clarify the method by which all instructors meet the requalification requirements of NUREG-0737, I.A.2.1 (March 28, 1980, H.R. Denton letter).

FPC RESPONSE 1.12:

It is FPC's position that NUREG-0737 I.A.2.3 (not I.A.2.1 nor 10CFR55 Appendix A) states the requirements for certified instructors. Specifically, Denton's 3/28/80 letter, Enclosure 1 A.2.d & A.2.e and NUREG-0737 I.A.2.3 deal with instructor certification.

Please refer to the enclosed TDP-209 "Operations Instructor Qualification Program" Section 6.6, which addresses Instructor Requalification Training, for more details and clarification of FPC's position on this matter.

NRC QUERY: 1.13

All licensed and certified instructors should take an annual requalification examination as part of the annual requalification program. Exemptions for instructors who write and grade annual requalification examinations may be granted on a limited basis. The licensee should clarify that instructors meet requalification examination requirements and passing criteria.

FPC RESPONSE 1.13:

FPC disagrees with the recommendation that all certified instructors should take an annual exam. NUREG-0737 I.A.2.1 or I.A.2.3 makes no such recommendation or requirement. FPC has chosen to make each certified instructor a subject matter expert who is responsible for teaching specific topics; to require an annual exam of the scope, breadth and depth of a licensed person is defeating the purpose of assigning specialty subjects to certified instructors. The Certified Instructor Requalification Program meets NUREG-0737 I.A.2.3.

For additional clarification on this matter see Response 1.12.

NRC QUERY: 1.14

The licensee should specify what simulator is used for annual simulator training and evaluation and whether that simulator complies with Regulatory Guide 1.149. Note that the use of a simulator for meeting the requirements of 10CFR 55 Appendix A is allowable if the simulator reproduces the general operating characteristics of the facility involved and the arrangement of the instrumentation and controls of the simulator is similar to that of the facility according to 10 CFR 55 Appendix A.

FPC RESPONSE 1.14:

As stated in TDP-203 Section 6.1.2.2 and Appendix A, the simulator used is the PowerSafety International Simulator (B&W simulator). This simulator meets the requirements of 10CFR55 Appendix A; the requirements of Regulatory Guide 1.149 are met with the exception that it is not an exact replica of the CR-3 Control Room. FPC is currently in the process of procuring a plant-specific simulator which will meet all requirements of ANS 3.5 and Regulatory Guide 1.149, and exceed those of 10CFR55 Appendix A.

NRC QUERY: 1.15

The licensee should clarify in Section 7.2 that records of the requalification program must be maintained for a period of two years from the date of the training to document the participation of each licensed operator and senior operator in the Requalification Program according to 10 CFR 55 Appendix A. These records must be available for review for NRC evaluation of license renewal.

FPC RESPONSE 1.15:

Section 7.2 of the Requalification Program description states that "Training records for current members of plant staff will be retained for the duration of the CR-3 operating license," which exceed 10 CFR 55 Appendix A requirement.

Also, please refer to TDP-203 Section 8.0 which states that the training records will be maintained for the lifetime of the plant. This exceeds the two-year requirement of 10CFR55 Appendix A. Also TDP-109 "Training Records Management" specifically states how training records are processed and stored for review for NRC evaluation of license renewal.

NRC QUERY: 1.16

"Quarterly Procedure Review Sheets" as described in Section 6.3.1 constitute a list of procedures to be reviewed as on-the-job performance items. The licensee should describe how these same sheets are to be used to document and evaluate "plant drills" training in the topics described in Section 6.3.1.1. It is not clear how topics such as "Radiation Protection Manual" and "Emergency Plan" are trained and evaluated on-the-job using the procedure review sheets.

FPC RESPONSE 1.16:

- a. Please refer to TDP-203 Section 6.1.2.3 and Attachment 5R for information on how plant drills are conducted, evaluated and documented.
- b. The on-shift Instructional Sessions cover many topics such as "Radiation Protection Manual" and "Emergency Plan" which are documented using the Procedure Review Record Sheets (Attachments 5Q1-5Q4). The evaluation of the trainees' knowledge occurs during drills, simulator training, semiannual evaluations, lecture series quizzes, and the annual written examinations. For additional clarification please refer to TDP-203 Section 6.1.2.3 and Attachments 5Q1-5Q4 and 5R.

NRC QUERY: 1.17

The licensee should clarify in Section 6.1.1 that credit for reactivity manipulations should be limited to significant boron changes which result in a change of reactor power or movement of control rods.

FPC RESPONSE 1.17:

The requirement for and wording of this reactivity manipulation is directly from NUREG 0737 I.A.2.1 (Denton's 3/28/80 letter, Enclosure 4) which does not make such stipulations and limitations.

This reactivity manipulation is one of many control manipulations as evident in TDP-203 Attachments 3 and 4 and FPC's 3/15/85 "Licensed Operator Requalification Program" description. In light of the other required manipulations, there appears to be ample opportunity for trainees to demonstrate their ability to control plant reactivity and respond accordingly.

In the next revision to TDP-203 FPC will stipulate acceptance criteria for "significant reactivity changes" which would apply to boron addition/dilution activities.

2.0 Replacement Operator Training Program (July 23, 1985, letter 3F0785-27)

NOTE: This letter revised FPC's Commitment for training in Heat Transfer, Fluid Flow and Thermodynamics.

NRC QUERY: 2.1

The licensee should provide a description of the course syllabus or curriculum outline for the Replacement Operator Training Program and the Non-Licensed Operator Training Program and identify the segments of those training programs required for initial license training (i.e., reactor operator), senior reactor operator training, and non-licensed operator training.

FPC RESPONSE 2.1:

Please refer to TDP-201 "Non-Licensed Operator Training Program" Attachments 1, 2 and 3 which identify the training that must be completed for non-licensed operator qualification.

Also, TDP-202 "Replacement Operator Training Program" Appendices A and B define the training requirements for initial RO and SRO license training and Appendix C for the course curriculum for initial license training.

Specifically, the following Heat Transfer, Fluid Flow and Thermodynamics Training must be completed:

- ANAO-10; HTFF Introduction (TDP-201 Attach. 1)
- ANAO-11; Measuring Devices (TDP-201 Attach. 1)
- NAO-50 through 59; HTFF (TDP-201 Attach. 2)
- Reactor Operator - Heat Transfer, Fluid Flow, Thermodynamics (TDP-202, Page 31 of 74)
- Senior Reactor Operator - Heat Transfer, Fluid Flow, Thermodynamics (TDP-202, Page 38 of 74)

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NRC QUERY: 2.2

The licensee should describe how Heat Transfer, Fluid Flow and Thermodynamics Training is addressed "as necessary" in the Replacement Operator Training Program and how the need is determined.

FPC RESPONSE 2.2

Please refer to TDP-202 Section 6.2.2.1 and Appendix C which clarify the Heat Transfer, Fluid Flow, and Thermodynamics Training required in the Replacement Operator Training Program. The depth, breadth, and sequencing of the training needed in these subjects has been determined through detailed job and task analyses.

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NRC QUERY: 2.3

The licensee should provide the curriculum outline and identify how the required training for Heat Transfer, Fluid Flow and Thermodynamics is provided in the Replacement Operator Training Program for instant SRO candidates.

FPC RESPONSE 2.3:

Please refer to TDP-202 Section 6.2.2.1 and Appendix B section 2.0 - 2.3.5 for clarification of Heat Transfer, Fluid Flow, and Thermodynamics Training for instant SRO candidates.

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3.0 Licensed Operator Regualification Training Program Commitment Clarification (July 23, 1985, letter 3F0785-15)

NRC QUERY: 3.1

The licensee should clarify that selection of topics listed in 10 CFR 55 Appendix A for Regualification Training is not optional. Only the depth and scope of coverage of required topics may be varied based on trainee regualification examination results. The licensee should clarify that training in Heat Transfer, Fluid Flow, and Thermodynamics, as well as mitigation of accidents involving a degraded core, are required topics for Regualification Training.

FPC RESPONSE 3.1:

Please see Response 1.1 and 1.3 for clarification.

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4.0 Replacement Operator Training Program (July 23, 1985, letter
3F0785-16)

NRC QUERY: 4.1

The licensee should provide the Replacement Operator Training Program syllabus or curriculum outline which identifies how training for mitigating core damage is covered in regularly scheduled training for licensed operator and senior operator trainees.

FPC RESPONSE 4.1:

Please refer to TDP-202 Section 6.2.2.1 and Appendix C Parts A.1 and B.1 which clarify the training on mitigating core damage during initial training for operator and senior operator trainees.

5.0 Instructor Qualifications Clarification (July 23, 1985, letter 3F0785-13)

NRC QUERY: 5.1

The licensee should clarify the Crystal River 3 certification and licensing requirements and procedures for instructors and instructor requalification training requirements. All instructors who teach systems, integrated response, transients and simulator courses should be licensed or certified by the NRC on a same type facility (i.e., another B&W facility). Licensed and certified instructors shall be enrolled in Requalification Training in accordance with NUREG-0737 I.A.2.3 and should take annual requalification examinations. Documentation of instructor participation in Requalification Program Training and evaluation is also required. The licensee's description of instructor certification and requalification in the July 23, 1985, letter does not appear to meet applicable requirements.

FPC RESPONSE 5.1:

FPC does not agree with the recommendation that all instructors should be licensed or certified by the NRC on the same type facility (i.e., another B&W facility). The Operations Instructor Qualification Program, as described in TDP-209, meets the requirements for licensed or certified instructors as stated in NUREG-0737 I.A.2.3 and Denton's 3/28/80 letter Enclosure 1 - A.2.d & A.2.e (the only NRC source for such requirements) in that FPC procedures require Operations Instructors to "be licensed or certified by the NRC on a PWR facility." NUREG-0737 states "...facility instructors...shall demonstrate their competence by successful completion of a senior operation examination," without specification of type of facility requirements.

With regard to requiring certified instructors to take an annual requalifications examination, please see our response to Query 1.13.

Please refer to TDP-209 Section 8.0 which clearly states that documentation of appropriate instructor participation and evaluation in the requalification program is required.

Contrary to this Query, FPC concludes that the Instructor Certification and Requalification Programs do meet the applicable requirements, that is, NUREG-0737 I.A.2.3.