



Florida Power & Light Company, 6501 South Ocean Drive, Jensen Beach, FL 34957
November 28, 2000

L-2000-188
10 CFR 50.90

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Proposed License Amendments
Dual Role Senior Reactor Operator/
Shift Technical Advisor

Pursuant to 10 CFR 50.90, Florida Power & Light Company (FPL) requests to amend Facility Operating License DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 by incorporating the attached Technical Specifications (TS) revisions. Changes are proposed to TS Table 6.2.1, Minimum Shift Crew Composition with Two Separate Control Rooms and TS Section 6.3.1 (2), Unit Staff Qualifications for the Shift Technical Advisor (STA). The proposed amendments would permit, as an alternative to the current dedicated STA, an on-shift senior reactor operator (SRO) position to be combined with the required STA position. The proposed amendments would require an individual filling either the dedicated STA position or the combined SRO/STA position to meet the Technical Specifications educational requirements as described in Federal Register Notice 50 FR 43621, "Commission Policy Statement on Engineering Expertise on Shift." These proposed changes are in accordance with the recommendations in the NRC *Policy Statement on Engineering Expertise on Shift*, published on October 28, 1985 and transmitted to all power reactor licensees and applicants by NRC Generic Letter 86-04, of the same title as the October 28, 1985 policy statement, dated February 13, 1986. As permitted by the policy statement, FPL proposes to exercise either of the STA options on a shift-by-shift basis. FPL requests that the proposed license amendments are reviewed and approved no later than March 2, 2001. Additionally, it is requested that the proposed amendments be issued to permit implementation within 120 days following approval.

Attachment 1 is an evaluation of the proposed changes. Attachment 2 is the "Determination of No Significant Hazard Consideration." Attachments 3 and 4 contain copies of the affected Technical Specifications pages marked to show the proposed changes. The proposed amendments have been reviewed by the St. Lucie Facility Review Group and the FPL Company Nuclear Review Board. In accordance with 10 CFR 50.91 (b) (1), copies of the proposed amendments are being forwarded to the State Designee for the State of Florida.

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Please contact us if there are any questions about this submittal.

Very truly yours,



Rajiv S. Kundalkar
Vice President
St. Lucie Plant

RSK/GAC

Attachments

cc: Regional Administrator, Region II, USNRC
Senior Resident Inspector, USNRC, St. Lucie Plant
Mr. W. A. Passetti, Florida Department of Health

ATTACHMENT 1

EVALUATION OF PROPOSED TECHNICAL SPECIFICATIONS CHANGES

Introduction

The proposed amendments to Facility Operating License DPR-67 for St. Lucie Unit 1 and NPF-16 for St. Lucie Unit 2 would revise TS Table 6.2.1., Minimum Shift Crew Composition With Two Separate Control Rooms and TS Section 6.3.1 (2), Unit Staff Qualifications for the Shift Technical Advisor (STA). The proposed amendments would permit, as an alternative to the current dedicated STA, an on-shift senior reactor operator (SRO) position to be combined with the required STA position. Additionally, the proposed amendments would require the individual filling either the dedicated STA position or the combined SRO/STA position to meet the Technical Specifications educational alternatives described in Federal Register Notice 50 FR 43621, "Commission Policy Statement on Engineering Expertise on Shift". These proposed changes are in accordance with the recommendations in the NRC *Policy Statement on Engineering Expertise on Shift*, published on October 28, 1985 and transmitted to all power reactor licensees and applicants by NRC Generic Letter 86-04, dated February 13, 1986.

FPL proposes to exercise either of the STA options permitted by the policy statement on a shift-by-shift basis. It is requested that the proposed amendments be issued to permit implementation within 120 days following approval.

Description of Proposed Changes

- 1) TS Table 6.2-1, Page 6-4 (Unit 1) and 6-5 (Unit 2):

Add asterisks behind "STA" in the NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION rows for STA. Add a footnote "*" shown at the bottom of page 6-4 (Unit 1) and 6-5 (Unit 2) which states:

"A single, onsite STA position shall be manned in MODE 1, 2, 3, and 4 unless the Shift Supervisor, or an individual on each Unit (Unit 1, Unit 2) with a Senior Reactor Operator's License meets the qualifications for the STA as required by Technical Specification 6.3.1."

Replace "a" in the NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION WITH (UNIT 1, UNIT 2) IN MODE 1, 2, 3, OR 4 for STA row with "c". Add a footnote "c" shown at the bottom of page 6-4 (Unit 1) and 6-5 (Unit 2) which states:

"If STA position is filled by Shift Supervisor or dedicated STA, then individual may fill the same position on (Unit 1, Unit 2)."

Copies of TS page 6-4 (Unit 1) and page 6-5 (Unit 2) marked to show the proposed changes are contained in Attachments 3 and 4, respectively.

2) TS Section 6.3.1 (2), Page 6-6 (Unit 1) and 6-6 (Unit 2): replace section (2) with the following:

“(2) the Shift Technical Advisor who shall have specific training in plant design and plant operating characteristics, including transients and accidents, and any of the following educational requirements:

- **Bachelor’s degree in engineering from an accredited institution; or**
- **Professional Engineer’s (PE) license obtained by successful completion of the PE examination; or**
- **Bachelor’s degree in engineering technology from an accredited institution, including course work in the physical, mathematical, or engineering sciences; or**
- **Bachelor’s degree in a physical science from an accredited institution, including course work in the physical, mathematical, or engineering sciences.”**

Copies of TS page 6-6 (Unit 1) and page 6-6 (Unit 2) marked to show proposed changes are contained in Attachments 3 and 4, respectively.

Background

In response to the accident at Three Mile Island in March 1979, the NRC required that each licensee provide an on-shift advisor to the shift supervisor. The STA requirement was communicated to licensees in NUREG-0578 (July 1979), the H. R. Denton letter (October 1979), and NUREG-0737, Item I.A.I.1 (November 1980). The STA function and qualification requirements were also defined. The STA function was to provide engineering and accident assessment expertise and advice to the shift supervisor in the event of abnormal or accident conditions. The qualification requirements include a bachelor's degree or equivalent, plus specific training in plant design, layout and controls. Normal duties of the STA pertain to the engineering aspects of assuring safe operations of the plant, including the review and evaluation of operating experience.

NUREG-0737, I.A.I.1 did not establish detailed elements of the academic and training requirements beyond the guidance provided in H. R. Denton's letter dated October 1979, i.e., the qualifications stated above. An Institute of Nuclear Power Operations (INPO) document, "Nuclear Power Plant Shift Technical Advisor" (4/30/80), was attached to NUREG-0737 as Appendix C, which outlined more specific education, training, and experience requirements for STAs. The NRC defined Appendix C as acceptable guidance for planning a long term STA program, but did not make the INPO document a requirement.

On September 25, 1985, the Commission approved the "Commission Policy Statement on Engineering Expertise on Shift," which was published in the Federal Register, 50 FR 11147 and 50 FR 43621 (October 1985). The Commission's policy statement gave licensees two options for meeting the STA requirements. Option 1 permits licensees to combine one of the required on-shift SRO positions with

the STA position into a "dual role" position (SRO/STA). The SRO/STA must hold a bachelor's degree in engineering, engineering technology, or physical science, or must hold a professional engineer license.

Option 2 permits a licensee to satisfy the policy by placing on each shift a "dedicated STA" who meets the education and knowledge criteria of NUREG-0737, Item I.A. I. I, and who participates in normal shift activities.

On February 13, 1986, the NRC staff issued Generic Letter 86-04, *Policy Statement on Engineering Expertise on Shift*, to send licensees a copy of the Commission's policy statement. In the generic letter, the staff also asked licensees to submit their plans for STA implementation. FPL responded to GL 86-04, on June 9, 1986 (Letter L-86-231), stating the current FPL program for providing engineering expertise on shift is consistent with Option 2 in the October 28, 1985 Federal Register Notice (50 FR 43621), and meets the criteria of NUREG-0737, Item I.A.I.I.

The NRC Office for Analysis and Evaluation of Operational Data (AEOD) conducted human performance studies of events at operating power reactors. On August 5, 1991 and January 21, 1992, the NRC staff briefed the Commission on this program. This information is published in SECY-92-026. Based on large differences identified in licensee implementation of STA programs, the staff identified that it is important for the STA to participate in normal shift activities, including participating in shift turnovers, reviewing plant logs, and maintaining awareness of plant configurations and status.

The NRC policy statement states that either option may be used on each shift. If the first option is used, the person filling the dual role SRO/STA position, in addition to holding an active SRO license on the unit(s) assigned, will be required to meet the criteria for education and training specified in the NRC policy statement. The education and training requirements for the dual role SRO/STA position include requirements currently applicable to the STA as described in the St. Lucie Units 1 and 2 Technical Specifications (TS) 6.3.1, except that the educational requirements for the dual role SRO/STA may be satisfied by any of the following four alternatives:

- 1) Bachelor's degree in engineering from an accredited institution; or,
- 2) Professional Engineer's (PE) license obtained by successful completion of the PE exam; or,
- 3) Bachelor's degree in engineering technology from an accrediting institution, including course work in physical, mathematical, or engineering sciences; or,
- 4) Bachelor's degree in physical science from an accredited institution including course work in physical, mathematical, or engineering sciences.

Discussion of Proposed Technical Specifications Changes

While the numbers of SROs, reactor operators (ROs), and non-licensed operators on-shift at St. Lucie Plant normally exceed the minimum shift manning requirements specified in TS Table 6.2-1 and 10 CFR 50.54(m)(2), the proposed TS changes to permit a dual role SRO/STA have been evaluated for the conditions in which the shift staffing is at the minimum required level permitted by TS Table 6.2-1.

The dual role SRO/STA position option recommended by the NRC policy statement combines one of the required SRO positions with the STA position; therefore, use of the dual role SRO/STA position option will not result in the need to assign an additional SRO to meet minimum shift staffing requirements

(i.e., the two SROs currently required by TS Table 6.2-1). The NRC policy statement specifically states that the number of shift personnel specified to meet 10 CFR 50.54(m) (2) and reflected in TS Table 6.2-1 is sufficient to allow the individual filling the dual role SRO/STA position to provide both accident assessment expertise, and to analyze and respond to off-normal occurrences, when needed.

The purpose of the STA position is to ensure that engineering and accident assessment expertise is available on each shift. The NRC policy statement concludes that the dual role SRO/STA position can provide this expertise and simultaneously function as one of the SROs required to meet staffing levels in 10 CFR 50.54(m) (2) and TS Table 6.2-1.

Control Room Location

St. Lucie Plant is a dual unit site with two separate control rooms. The TS Table 6.2-1 minimum shift staffing with two units operating consists of: one Shift Supervisor with an SRO license (holding a license on both units); one SRO for each unit holding a license on his/her assigned unit (Unit Supervisor); four licensed ROs; four non-licensed plant operators; and one STA. This minimum staffing level is based on meeting the following criteria:

- one SRO in the control room of each unit at all times when either unit is operating;
- one SRO with overall control room command function responsibilities for the site available for relief on either unit;
- one RO at the controls for each operating unit with an RO in each control room available for relief on that unit;
- two non-licensed plant operators assigned to each unit; and,
- one STA assigned to both units.

Upon implementation of the proposed dual role SRO/STA position option, the staffing necessary to achieve safe shutdown will continue to comply with regulatory requirements.

Implementation

FPL intends to exercise either of the two options permitted by the NRC *Policy Statement on Engineering Expertise on Shift*, published on October 28, 1985 on a shift-by-shift basis. In that light, FPL will have an STA on each shift fully meeting the unit staff qualifications requirements of the proposed revision to TS 6.3.1.

If option 1 is in use and an accident was to occur, then the dual role SRO/STA scenarios below describe how STA coverage will be provided:

Position(s) fulfilling dual role SRO/STA	Actions to be Taken to Ensure the Presence of the Dual Role SRO/STA on the Transient/Accident Unit
Single Unit Event / SRO/STA on Unit 1 and Unit 2	The unit assigned SRO/STA provides engineering and accident assessment expertise for the accident/transient unit.
Single Unit Event / Shift Supervisor	The shift supervisor transits to the accident/transient unit in accordance with plant procedures and provides engineering and accident assessment expertise for the accident/transient unit.
Dual Unit Event / SRO/STA on Unit 1 and Unit 2	Each unit assigned SRO/STA provides engineering and accident assessment expertise for his/her assigned accident/transient unit.
Dual Unit Event / Shift Supervisor	The shift supervisor transits to the most affected unit control room in accordance with plant procedures and provides engineering and accident assessment expertise for both accident/transient units. The shift supervisor maintains awareness of the other unit's accident/transient conditions through monitoring of available computerized data, verbal communications, etc.

If option 2 is in use, then an individual qualified as an STA will be available on-site (consistent with the current TS requirements for St. Lucie Units 1 and 2) to provide engineering and accident assessment expertise, as necessary.

Conclusion

These proposed changes to the St. Lucie Units 1 and 2 Technical Specifications is in accordance with the recommendations in the NRC *Policy Statement on Engineering Expertise on Shift* published on October 28, 1985 and transmitted to all power reactor licensees and applicants by NRC Generic Letter 86-04, of the same title as the October 28, 1985 policy statement, dated February 13, 1986. If approved, and as permitted by the NRC policy statement, St. Lucie Units 1 and 2 will exercise either of the two options permitted by the policy statement on each operating shift, which are:

- 1) to combine one of the on-shift licensed SRO positions and the STA position (i.e., dual role SRO/STA); or
- 2) to have a dedicated STA on-shift in accordance with the description in NUREG-0737 (i.e., Item I.A.1.1).

ATTACHMENT 2

DETERMINATION OF NO SIGNIFICANT HAZARD CONSIDERATION

The proposed amendments to Facility Operating License DPR-67 for St. Lucie Unit 1 (PSL1) and NPF-16 for St. Lucie Unit 2 (PSL2) would revise TS Table 6.2.1., Minimum Shift Crew Composition With Two Separate Control Rooms and TS Section 6.3.1 (2), Unit Staff Qualifications for the Shift Technical Advisor (STA). The proposed amendments would permit, as an alternative to the current dedicated STA, an on-shift senior reactor operator (SRO) position to be combined with the required Shift Technical Advisor (STA) position. Additionally, the proposed amendments would require the individual filling either the dedicated STA position or the combined SRO/STA position to meet current Technical Specification educational requirements for the dedicated STA position. These proposed changes are in accordance with the recommendations in the NRC *Policy Statement on Engineering Expertise on Shift*, published on October 28, 1985 and transmitted to all power reactor licensees and applicants by NRC Generic Letter 86-04, of the same title as the October 28, 1985 policy statement, dated February 13, 1986. FPL proposes to exercise either option of the NRC policy statement on a shift-by-shift basis.

Pursuant to 10 CFR 50.92, a determination may be made that the proposed license amendments involve no significant hazard consideration if operation of the facility in accordance with the proposed amendments would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. Each standard is discussed as follows:

(1) Operation of the facility in accordance with the proposed amendments would not involve a significant increase in the probability or consequences of an accident previously evaluated.

Implementation of the proposed changes will not involve any physical changes to plant systems, structures, or components (SSC), or the manner in which these SSCs are operated, maintained, modified, tested, or inspected. Therefore, the proposed use of either the dual role SRO/STA position or the current dedicated STA position does not increase the probability of an accident previously evaluated. Implementation of the proposed changes will result in personnel with enhanced operational knowledge being assigned to perform the STA function of providing accident assessment expertise, and analyzing and responding to off normal occurrences when needed.

The NRC stated preference in the October 28, 1985, *Policy Statement on Engineering Expertise on Shift*, indicates that the NRC has concluded that the individual filling the dual role SRO/STA position may perform these functions better than a non-licensed individual filling the STA position, even when the SRO/STA is concurrently functioning as one of the required shift SROs. Therefore, the proposed TS changes do not increase the consequences of an accident previously evaluated.

(2) Operation of the facility in accordance with the proposed amendments would not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendments will not change the physical plant or the modes of plant operation defined in the facility license for either St. Lucie unit. Changes proposed for the administrative controls do not involve the addition or modification of equipment, nor do they alter the design or operation of plant systems. Therefore, operation of either facility in accordance with its proposed amendments would not create the possibility of a new or different kind of accident from any accident previously evaluated.

(3) Operation of the facility in accordance with the proposed amendments would not involve a significant reduction in a margin of safety.

The proposed amendments revise certain administrative controls involving the on-site programmatic process for review and approval of plant procedures. Neither the scope, nor the requirement to establish, maintain, and implement procedures for activities that could affect nuclear safety are being changed.

The NRC stated preference in the October 28, 1985, *Policy Statement on Engineering Expertise on Shift*, indicates that the NRC has concluded that the individual filling the dual role SRO/STA position may perform these functions better than a non-licensed individual filling the STA position, even when the SRO/STA is concurrently functioning as one of the required shift SROs. Therefore, the proposed amendments should involve an enhancement in a margin on safety.

Based on the above, FPL has determined that the proposed license amendments involve no significant hazard consideration.

Environmental Consideration

The proposed license amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The proposed amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and no significant increase in individual or cumulative occupational radiation exposure. FPL has concluded that the proposed amendments involve no significant hazard consideration and meet the criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), an environmental impact statement or environmental assessment need not be prepared in connection with issuance of the amendments.

ATTACHMENT 3

ST. LUCIE UNIT 1 MARKED-UP TECHNICAL SPECIFICATIONS PAGES

Page 6-4

Page 6-6

6.0 ADMINISTRATIVE CONTROLS

6.3 UNIT STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI / ANS-3.1-1978 for comparable positions, except for:

- (1) the Health Physics Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.
- (2) the Shift Technical Advisor ~~who shall have a bachelor degree or equivalent in a scientific or engineering discipline with specific training in plant design and plant operating characteristics, including transients and accidents, and~~ ^{PER ATTACHED}
- (3) the Multi-Discipline Supervisors who shall meet or exceed the following requirements:
 - a. Education: Minimum of a high school diploma or equivalent.
 - b. Experience: Minimum of four years of related technical experience, which shall include three years power plant experience of which one year is at a nuclear power plant.
 - c. Training: Complete the Multi-Discipline Supervisor training program.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the unit staff shall be maintained under the direction of the Training Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI / ANS-3.1 – 1978 and 10 CFR Part 55 and the supplemental requirements specified in Sections A and C of Enclosure 1 of the March 28, 1980 NRC letter to all licensees, and shall include familiarization with relevant industry operational experience.

6.5 REVIEW AND AUDIT

6.5.1 FACILITY REVIEW GROUP (FRG)

FUNCTION

6.5.1.1 The Facility Review Group shall function to advise the Plant General Manager on all matters related to nuclear safety.

COMPOSITION

6.5.1.2 The FRG shall have voting members composed of individuals from each of the following disciplines:

Operations	Electrical Maintenance
Reactor Engineering	Mechanical Maintenance
Health Physics	Technical Support
Chemistry	Quality Assurance / Control
Licensing	Services
Instrument and Control	

The Plant General Manager shall appoint the FRG members, in writing, and from this membership shall designate, in writing, an FRG Chairman.

Members shall meet or exceed the qualifications required for Managers, Supervisors, or Professional-Technical, as appropriate, pursuant to Specification 6.3.1.

- (2) **the Shift Technical Advisor who shall have specific training in plant design and plant operating characteristics, including transients and accidents, and any of the following educational requirements:**
- **Bachelor's degree in engineering from an accredited institution; or**
 - **Professional Engineer's (PE) license obtained by successful completion of the PE examination; or**
 - **Bachelor's degree in engineering technology from an accredited institution, including course work in the physical, mathematical, or engineering sciences; or**
 - **Bachelor's degree in a physical science from an accredited institution, including course work in the physical, mathematical, or engineering sciences.**

ATTACHMENT 4

ST. LUCIE UNIT 2 MARKED-UP TECHNICAL SPECIFICATIONS PAGES

Page 6-5

Page 6-6

Table 6.2-1
 MINIMUM SHIFT CREW COMPOSITION
 TWO UNITS WITH TWO SEPARATE CONTROL ROOMS

WITH UNIT 1 IN MODE 5 OR 6 OR DEFUELED		
POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODE 1, 2, 3, or 4	MODE 5 or 6
SS (SRO)	1 ^a	1 ^a
SRO	1	None
RO	2	1 ^b
AO	2	2 ^b
STA *	1	None

WITH UNIT 1 IN MODE 1, 2, 3 OR 4		
POSITION	NUMBER OF INDIVIDUALS REQUIRED TO FILL POSITION	
	MODE 1, 2, 3, or 4	MODE 5 or 6
SS (SRO)	1 ^a	1 ^a
SRO	1	None
RO	2	1
AO	2	1
STA *	1 ^c	None

- SS - Shift Supervisor with a Senior Reactor Operator's License on Unit 2
- SRO - Individual with a Senior Reactor Operator's License on Unit 2
- RO - Individual with a Reactor Operator's License on Unit 2
- AO - Auxiliary Operator
- STA - Shift Technical Advisor

Except for the Shift Supervisor, the Shift Crew Composition may be one less than the minimum requirements of Table 6.2-1 for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the Shift Crew Composition to within the minimum requirements of Table 6.2-1. This provision does not permit any shift crew position to be unmanned upon shift change due to an oncoming shift crewman being late or absent.

During any absence of the Shift Supervisor from the Control Room while the unit is in MODE 1, 2, 3 or 4, an individual (other than the Shift Technical Advisor) with a valid SRO license shall be designated to assume the Control Room command function. During any absence of the Shift Supervisor from the Control Room while the unit is in MODE 5 or 6, an individual with a valid SRO or RO license shall be designated to assume the Control Room command function.

a/ Individual may fill the same position on Unit 1
 b/ One of the two required individuals may fill the same position on Unit 1.
 c/ IF STA POSITION IS FILLED BY SHIFT SUPERVISOR OR DEDICATED STA, THEN INDIVIDUAL MAY FILL THE SAME POSITION ON UNIT 1.

A SINGLE, ON-SITE STA POSITION SHALL BE MAINTAINED IN MODES 1, 2, 3, AND 4 UNLESS THE SHIFT SUPERVISOR, OR AN INDIVIDUAL ON EACH UNIT WITH A SENIOR REACTOR OPERATOR'S LICENSE MEETS THE QUALIFICATIONS FOR THE STA AS REQUIRED BY TECHNICAL SPECIFICATION 6.3.1.

ADMINISTRATIVE CONTROLS

6.2.3 SHIFT TECHNICAL ADVISOR

The Shift Technical Advisor function is to provide on shift advisory technical support in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation of the unit.

6.3 UNIT STAFF QUALIFICATIONS

6.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI / ANS-3.1-1978 for comparable positions, except for:

- (1) the Health Physics Supervisor who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975,
- (2) the Shift Technical Advisor ~~who shall have a bachelor degree or equivalent in a scientific or engineering discipline with specific training in plant design and plant operating characteristics, including transients and accidents, and~~ ^{RESPONSE PER ATTACHED}
- (3) the Multi-Discipline Supervisors who shall meet or exceed the following requirements:
 - a. Education: Minimum of a high school diploma or equivalent.
 - b. Experience: Minimum of four years of related technical experience, which shall include three years power plant experience of which one year is at a nuclear power plant.
 - c. Training: Complete the Multi-Discipline Supervisor training program.

- (2) **the Shift Technical Advisor who shall have specific training in plant design and plant operating characteristics, including transients and accidents, and any of the following educational requirements:**
- **Bachelor's degree in engineering from an accredited institution; or**
 - **Professional Engineer's (PE) license obtained by successful completion of the PE examination; or**
 - **Bachelor's degree in engineering technology from an accredited institution, including course work in the physical, mathematical, or engineering sciences; or**
 - **Bachelor's degree in a physical science from an accredited institution, including course work in the physical, mathematical, or engineering sciences.**