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Site Vice President – JAF

JAFP-16-0142  
September 19, 2016

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

**Subject:** Revision to Technical Specification (TS) Administrative Controls for Staffing and Training Upon Permanent Cessation of Operation (CAC No. MF7280) – Supplement 2

James A. FitzPatrick Nuclear Power Plant  
Docket No. 50-333  
License No. DPR-059

- References:**
1. ENOI letter to the NRC, "License Amendment Request – Revision to Technical Specification Administrative Controls for Permanently Defueled Condition," JAFP-15-0143, dated January 15, 2016 (ADAMS Accession No. ML16015A456)
  2. ENOI letter to the NRC, "Response to Request for Additional Information (RAI) Regarding Revision to Technical Specification (TS) Administrative Controls for Staffing and Training Upon Permanent Cessation of Operation (CAC No. MF7280) – Supplement 1," JAFP-16-077, dated June 3, 2016 (ADAMS Accession No. ML16155A326)
  3. Email from T. Wengert (NRC) to P. Couture (ENOI), "FitzPatrick – Open Issues following 8/3/16 Clarification Call Concerning TS Admin Controls LAR (CAC No. MF7280), dated August 15, 2016
  4. ENOI Letter to the NRC, "Request for Approval of a Certified Fuel Handler Training and Retraining Program," JAFP-15-0142, dated January 15, 2016 (ADAMS Accession No. ML16015A455)

By letter dated January 15, 2016 [Reference 1], Entergy Nuclear Operations, Inc. (ENOI) submitted a proposed amendment to renewed facility operating license DPR-059 to revise the Technical Specification (TS) administrative controls for staffing and training upon permanent removal of fuel from the reactor vessel at the James A. FitzPatrick Nuclear Power Plant (JAF). On June 3, 2016, ENOI submitted Supplement 1 of the proposed License Amendment to respond to an U.S. Nuclear Regulatory Commission (NRC) request for additional information [Reference 2]. On August 15, 2016 [Reference 3], the NRC identified several open items associated with that response. These specific open items are addressed in the attachments to this letter.

Note that the ENOI letter requesting approval of a Certified Fuel Handler Training and Retraining Program, as supplemented, for JAF [Reference 4] is topical to this transmittal.

The attached response does not affect the conclusions of the No Significant Hazards Consideration Determination and the Environmental Considerations submitted with the proposed TS change dated January 15, 2016 [Reference 1].

There are no regulatory commitments in this submittal. Should you have any questions please contact Mr. William C. Drews at 315-349-6562.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on the 19<sup>th</sup> day of September 2016.

Sincerely,



Brian R. Sullivan  
Site Vice President – JAF  
BRS/WCD/std

- Attachments:
1. Response to Open Items
  2. Mark-up of James A. FitzPatrick Technical Specification Pages
  3. Re-typed James A. FitzPatrick Technical Specification Pages

cc: NRC Region 1 Administrator  
NRR Project Manager  
NRC Resident Inspector  
NYSPSC  
NYSERDA

**JAFP-16-0142**

**ATTACHMENT 1**

**RESPONSE TO OPEN ITEMS  
(3 Pages)**

## Response to Open Items

### REGARDING PROPOSED CHANGES TO TECHNICAL SPECIFICATION ADMINISTRATIVE CONTROLS FOR STAFFING AND TRAINING UPON PERMANENT CESSATION OF OPERATION

#### JAMES A. FITZPATRICK NUCLEAR POWER PLANT ENTERGY NUCLEAR OPERATIONS, INC DOCKET NO. 50-333 RENEWED FACILITY OPERATING LICENSE NO. DPR-59

By letter dated January 15, 2016 [Reference 1], Entergy Nuclear Operations, Inc. (ENOI) submitted a proposed amendment to renewed facility operating license DPR-059 to revise the Technical Specification (TS) administrative controls for staffing and training upon permanent removal of fuel from the reactor vessel at the James A. FitzPatrick Nuclear Power Plant (JAF). On June 3, 2016, ENOI submitted Supplement 1 of the proposed License Amendment to respond to an U.S. Nuclear Regulatory Commission (NRC) request for additional information [Reference 2]. On August 15, 2016 [Reference 3], the NRC identified several open items associated with that response. These specific open items are addressed below:

#### **RAI-1, Item (f)**

**The NRC staff asked the licensee to provide additional information regarding the minimum qualifications for the “Non-Certified Operator” position. The licensee clarified during the phone call that the terminology “non-certified operator” is used to differentiate that individual from a Certified Fuel Handler. The licensee further stated that Vermont Yankee used the same terminology in its application (which the staff subsequently verified to be correct). Our concern is that “non-certified operator” is not defined anywhere (not in the TS, ANSI/ANS 3.1-1978 standard, etc.) The staff’s suggestion to the licensee during the phone call was that they consider adding a definition somewhere (in the TSs or some other appropriate place).**

#### Response

Section 1.1 of the JAF TS has been modified to include the following definition for NON-CERTIFIED OPERATOR:

“A NON-CERTIFIED OPERATOR is a non-licensed operator who complies with the qualification requirements of Specification 5.3.1, but is not a CERTIFIED FUEL HANDLER.”

In addition, Sections 5.2.2.a and 5.2.2.f of the JAF TS, as previously modified in References 1 and 3, are modified to define that the term NON-CERTIFIED OPERATOR is a definition by placing it in all caps in accordance with the Note in JAF TS 1.1.

The changes are depicted in Attachments 2 and 3.

## Response to Open Items

### RAI-1, Item (g)

The NRC staff asked the licensee why there are no additional provisions in TS 5.2.2.b to ensure that the shift crew composition is not below minimum requirements when fuel movements are in progress, movements of loads over fuel are in progress, or shift turnover is in progress. The licensee stated during the phone call that they modeled their application after Crystal River, which was the last STS plant to undergo decommissioning, and their TS did not include such provisions. During the phone call, the licensee indicated that they principally agreed that the shift crew composition should not fall below minimum requirements during fuel movements, load movements, and shift turnover (however, they plan on controlling this administratively, as stated in their written response). The staff's suggestion to the licensee was that they consider adding such provisions to the TS.

### Response

Section 5.2.2.b of JAF TS is modified to state:

"Shift crew composition may be less than the minimum requirements of 5.2.2.a 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 ***and all of the following conditions are met:***

- 1) ***No fuel movements are in progress;***
- 2) ***No movement of loads over fuel are in progress; and***
- 3) ***No unmanned shift positions during shift turnover shall be permitted while the shift crew is less than the minimum."***

The text presented in **bold and italics** is added to address this open item. The changes are depicted in Attachments 2 and 3.

### RAI-5

The NRC staff asked the licensee what was meant in its RAI response by "ENOI has elected not to include 'CERTIFIED FUEL HANDLER' in JAF TS Section 1.1 at this time ...". The licensee stated that its defueled TS LAR had been put on hold and that they had chosen Crystal River as a template because it was the most recent ITS plant. This definition is not in the Crystal River defueled TSs. The NRC staff noted that this may have been an oversight in the CR3 TSs, as it is included in the Kewaunee, SONGS, and VY TSs, and therefore, the NRC staff's preference would be to include this definition in the TSs. During the phone call, the licensee agreed to include the definition in its current TS revision. The NRC staff would also consider an option for the licensee to provide a statement that this definition will be included as part of the future defueled TS LAR.

## Response to Open Items

### Response

Section 1.1 of the JAF TS has been modified to include the following definition for CERTIFIED FUEL HANDLER:

“A CERTIFIED FUEL HANDLER is an individual who complies with the provisions of the CERTIFIED FUEL HANDLER training program.”

In addition, Sections 5.2.1.d, 5.2.2.a, 5.2.2.d, 5.2.2.e, 5.2.2.f, 5.3.2 of the JAF TS, as previously modified in References 1 and 3, are modified to define that the term CERTIFIED FUEL HANDLER is a definition by placing it in all caps in accordance with the Note in JAF TS 1.1.

The changes are depicted in Attachments 2 and 3.

### REFERENCES

1. ENOI letter to the NRC, “License Amendment Request – Revision to Technical Specification Administrative Controls for Permanently Defueled Condition,” JAFP-15-0143, dated January 15, 2016 (ADAMS Accession No. ML16015A456)
2. ENOI letter to the NRC, “Response to Request for Additional Information (RAI) Regarding Revision to Technical Specification (TS) Administrative Controls for Staffing and Training Upon Permanent Cessation of Operation (CAC No. MF7280) – Supplement 1,” JAFP-16-077, dated June 3, 2016 (ADAMS Accession No. ML16155A326)
3. Email from T. Wengert (NRC) to P. Couture (ENOI), “FitzPatrick – Open Issues following 8/3/16 Clarification Call Concerning TS Admin Controls LAR (CAC No. MF7280),” dated August 15, 2016

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**ATTACHMENT 2**

**MARK-UP OF JAMES A. FITZPATRICK  
TECHNICAL SPECIFICATION PAGES**

**TS 1.1-1 (Current TS Page)**

**TS 1.1-4 (Current TS Page)**

**TS 5.2-1 (Mark-up of Previously Modified Page)**

**TS 5.2-2 (Mark-up of Previously Modified Page)**

**TS 5.3-1 (Mark-up of Previously Modified Page)**

1.0 USE AND APPLICATION  
1.1 Definitions

A CERTIFIED FUEL HANDLER is an individual who complies with the provisions of the CERTIFIED FUEL HANDLER training program.

-NOTE-

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

<u>Term</u>	<u>Definition</u>
ACTIONS	ACTIONS shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)	The APLHGR shall be applicable to a specific planar height and is equal to the sum of the heat generation rate per unit length of fuel rod for all the fuel rods in the specified assembly at the specified height divided by the number of fuel rods in the fuel assembly at the height.
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass all devices in the channel required for channel OPERABILITY and the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an in-place qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps.
CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.

CERTIFIED FUEL HANDLER

(continued)

1.1 Definitions (continued)

LINEAR HEAT GENERATION RATE (LHGR)

The LHGR shall be the heat generation rate per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.

LOGIC SYSTEM FUNCTIONAL TEST

A LOGIC SYSTEM FUNCTIONAL TEST shall be a test of all logic components required for OPERABILITY of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested.

MINIMUM CRITICAL POWER RATIO (MCPR)

The MCPR shall be the smallest critical power that exists in the core for each type of fuel. The CPR is that power in the assembly that is calculated by application of the appropriate correlation(s) to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.

MODE

A MODE shall correspond to any one inclusive combination of mode switch position, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1 with fuel in the reactor vessel.

OPERABLE – OPERABILITY

A system, subsystem, division, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, division, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).

NON-CERTIFIED OPERATOR

PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)

The PTLR is the unit specific document that provides the reactor vessel pressure and temperature limits, including heatup and cooldown rates, for the current reactor vessel fluence period. These pressure and temperature limits shall be determined for each fluence period in accordance with Specification 5.6.7.

(continued)

A NON-CERTIFIED OPERATOR is a non-licensed operator who complies with the qualification requirements of Specification 5.3.1, but is not a CERTIFIED FUEL HANDLER.

5.0 ADMINISTRATIVE CONTROLS  
5.2 Organization

5.2.1 Onsite and Offsite Organizations

Onsite and offsite organizations shall be established for facility staff and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting safety of the nuclear fuel.

- a. Lines of authority, responsibility, and communication shall be defined and established throughout highest management levels, intermediate levels, and all operating organization positions. These relationships shall be documented and updated, as appropriate, in organization charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements, including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications, shall be documented in the UFSAR;
- b. The plant manager shall be responsible for overall safe operation of the facility and shall have control over those onsite activities necessary for safe storage and maintenance of the nuclear fuel;
- c. A specified corporate officer shall have corporate responsibility for the safe storage and handling of nuclear fuel and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the facility to ensure safe management of nuclear fuel; and
- d. The individuals who train the ~~Certified Fuel Handlers~~, carry out radiation protection, or perform quality assurance functions may report to the appropriate onsite manager; however, these individuals shall have sufficient organizational freedom to ensure their ability to perform their assigned functions.

NON-CERTIFIED OPERATOR

5.2.2 Facility Staff

CERTIFIED FUEL HANDLERS

The facility staff organization shall include the following:

- a. Each duty shift shall be composed of at least one shift supervisor and one ~~Non-certified Operator~~. The ~~Non-certified Operator~~ position may be filled by a ~~Certified Fuel Handler~~.

CERTIFIED FUEL HANDLER

NON-CERTIFIED OPERATOR

(continued)

NOTE: Supplement 1 did not provide a re-typed page 5.2-2; thus, this page represents a consolidation of the retyped pages provided in the original license amendment request.

5.2 Organization

and all of the following conditions are met:  
1) No fuel movements are in progress;  
2) No movement of loads over fuel are in progress; and  
3) No unmanned shift positions during shift turnover shall be permitted while the shift crew is less than the minimum.

5.2.2 Facility Staff (continued)

- b. Shift crew composition may be less than the minimum requirements of 5.2.2.a 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.
- c. A radiation protection technician shall be on site during the movement of fuel and during the movement of loads over fuel. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
- d. Oversight of fuel handling operations shall be provided by a ~~Certified Fuel Handler~~.
- e. The shift supervisor shall be a ~~Certified Fuel Handler~~.
- f. At least one person qualified to stand watch in the control room (~~Non-Certified Operator or Certified Fuel Handler~~) shall be present in the control room when nuclear fuel is stored in the spent fuel pool.

CERTIFIED FUEL HANDLER

CERTIFIED FUEL HANDLER

NON-CERTIFIED OPERATOR

CERTIFIED FUEL HANDLER

5.0 ADMINISTRATIVE CONTROLS

Note: Mark-up of Page 5.3-1 from the original license amendment request

5.3 Facility Staff Qualifications

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- 5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the Quality Assurance Program Manual (QAPM).
- 5.3.2 An NRC approved training and retraining program for ~~Certified Fuel Handlers~~ shall be maintained.

CERTIFIED FUEL HANDLERS

**JAFP-16-0142**

**ATTACHMENT 3**

**RE-TYPED JAMES A. FITZPATRICK TECHNICAL SPECIFICATION  
PAGES**

**TS 1.1-1**

**TS 1.1-4**

**TS 5.2-1**

**TS 5.2-2**

**TS 5.3-1**

1.0 USE AND APPLICATION

1.1 Definitions

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-----NOTE-----

The defined terms of this section appear in capitalized type and are applicable throughout these Technical Specifications and Bases.

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<u>Term</u>	<u>Definition</u>
ACTIONS	Actions shall be that part of a Specification that prescribes Required Actions to be taken under designated Conditions within specified Completion Times.
AVERAGE PLANER LINEAR HEAT GENERATION RATE (APLHGR)	The APLHGR shall be applicable to a specific planar height and is equal to the sum of the heat generation rate per unit length of fuel rod for all the fuel rods in the specified assembly at the specified height divided by the number of fuel rods in the fuel assembly at the height.
CERTIFIED FUEL HANDLER	A CERTIFIED FUEL HANDLER is an individual who complies with the provisions of the CERTIFIED FUEL HANDLER training program
CHANNEL CALIBRATION	A CHANNEL CALIBRATION shall be the adjustment, as necessary, of the channel output such that it responds within the necessary range and accuracy to known values of the parameter that the channel monitors. The CHANNEL CALIBRATION shall encompass all devices in the channel required for channel OPERABILITY and the CHANNEL FUNCTIONAL TEST. Calibration of instrument channels with resistance temperature detector (RTD) or thermocouple sensors may consist of an inplace qualitative assessment of sensor behavior and normal calibration of the remaining adjustable devices in the channel. The CHANNEL CALIBRATION may be performed by means of any series of sequential, overlapping, or total channel steps.
CHANNEL CHECK	A CHANNEL CHECK shall be the qualitative assessment, by observation, of channel behavior during operation. This determination shall include, where possible, comparison of the channel indication and status to other indications or status derived from independent instrument channels measuring the same parameter.

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1.1 Definitions (continued)

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LINEAR HEAT GENERATION RATE (LHGR)	The LHGR shall be the heat generation rate per unit length of fuel rod. It is the integral of the heat flux over the heat transfer area associated with the unit length.
LOGIC SYSTEM FUNCTIONAL TEST	A LOGIC SYSTEM FUNCTIONAL TEST shall be a test of all logic components required for OPERABILITY of a logic circuit, from as close to the sensor as practicable up to, but not including, the actuated device, to verify OPERABILITY. The LOGIC SYSTEM FUNCTIONAL TEST may be performed by means of any series of sequential, overlapping, or total system steps so that the entire logic system is tested.
MINIMUM CRITICAL POWER RATIO (MCPR)	The MCPR shall be the smallest critical power that exists in the core for each type of fuel. The CPR is that power in the assembly that is calculated by application of the appropriate correlation(s) to cause some point in the assembly to experience boiling transition, divided by the actual assembly operating power.
MODE	A MODE shall correspond to any one inclusive combination of mode switch position, average reactor coolant temperature, and reactor vessel head closure bolt tensioning specified in Table 1.1-1 with fuel in the reactor vessel.
NON-CERTIFIED OPERATOR	A NON-CERTIFIED OPERATOR is a non-licensed operator who complies with the qualification requirements of Specification 5.3.1, but is not a CERTIFIED FUEL HANDLER.
OPERABLE - OPERABILITY	A system, subsystem, division, component, or device shall be OPERABLE or have OPERABILITY when it is capable of performing its specified safety function(s) and when all necessary attendant instrumentation, controls, normal or emergency electrical power, cooling and seal water, lubrication, and other auxiliary equipment that are required for the system, subsystem, division, component, or device to perform its specified safety function(s) are also capable of performing their related support function(s).
PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)	The PTLR is the unit specific document that provides the reactor vessel pressure and temperature limits, including heatup and cooldown rates, for the current reactor vessel fluence period. These pressure and temperature limits shall be determined for each fluence period in accordance with Specification 5.6.7.

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## 5.0 ADMINISTRATIVE CONTROLS

### 5.2 Organization

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#### 5.2.1 Onsite and Offsite Organizations

Onsite and offsite organizations shall be established for facility staff and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting safety of the nuclear fuel.

- a. Lines of authority, responsibility, and communication shall be defined and established throughout highest management levels, intermediate levels, and all operating organization positions. These relationships shall be documented and updated, as appropriate, in organizations charts, functional descriptions of departmental responsibilities and relationships, and job descriptions for key personnel positions, or in equivalent forms of documentation. These requirements, including the plant-specific titles of those personnel fulfilling the responsibilities of the positions delineated in these Technical Specifications, shall be documented in the UFSAR;
- b. The plant manager shall be responsible for overall safe operation of the facility and shall have control over those onsite activities necessary for safe storage and maintenance of the nuclear fuel;
- c. A specified corporate officer shall have corporate responsibility for the safe storage and handling of nuclear fuel and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the facility to ensure safe management of nuclear fuel; and
- d. The individuals who train the CERTIFIED FUEL HANDLERS, carry out radiation protection, or perform quality assurance functions may report to the appropriate onsite manager; however, these individuals shall have sufficient organization freedom to ensure their ability to perform their assigned functions.

#### 5.2.2 Facility Staff

The facility staff organization shall include the following:

- a. Each duty shift shall be composed of at least one shift supervisor and one NON-CERTIFIED OPERATOR. The NON-CERTIFIED OPERATOR position may be filled by a CERTIFIED FUEL HANDLER.

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5.2 Organization

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5.2.2 Facility Staff (continued)

- b. Shift crew composition may be less than the minimum requirements of 5.2.2.a 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 and all of the following conditions are met:
    - 1) No fuel movements are in progress;
    - 2) No movement of loads over fuel are in progress; and
    - 3) No unmanned shift positions during shift turnover shall be permitted while the shift crew is less than the minimum.
  - c. A radiation protection technician shall be on site during the movement of fuel and during the movement of loads over fuel. The position may be vacant for not more than 2 hours, in order to provide for unexpected absence, provided immediate action is taken to fill the required position.
  - d. Oversight of fuel handling operations shall be provided by a CERTIFIED FUEL HANDLER.
  - e. The shift supervisor shall be a CERTIFIED FUEL HANDLER.
  - f. At least one person qualified to stand watch in the control room (NON-CERTIFIED OPERATOR or CERTIFIED FUEL HANDLER) shall be present in the control room when nuclear fuel is stored in the spent fuel pool.
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5.0 ADMINISTRATIVE CONTROLS

5.3 Facility Staff Qualifications

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- 5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications of ANSI/ANS 3.1-1978 for comparable positions with exceptions specified in the Quality Assurance Program Manual (QAPM).
- 5.3.2 An NRC approved training and retraining program for CERTIFIED FUEL HANDLERS shall be maintained.
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