UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

January 2, 2020

Mr. Don Moul
Vice President, Nuclear Division
and Chief Nuclear Officer
Florida Power & Light Company
Mail Stop: NT3/JW
15430 Endeavor Drive
Juno Beach, FL 33478

SUBJECT: DUANE ARNOLD ENERGY CENTER - ISSUANCE OF AMENDMENT NO. 309 TO ALIGN TECHNICAL SPECIFICATIONS STAFFING AND ADMINISTRATIVE REQUIREMENTS (EPID L-2019-LLA-0082)

Dear Mr. Moul:

The U.S. Nuclear Regulatory Commission (Commission) has issued the enclosed Amendment No. 309 to Renewed Facility Operating License No. DPR-49, for the Duane Arnold Energy Center (DAEC). The amendment consists of changes to the technical specifications (TSs) in response to your application dated April 19, 2019, as supplemented by letter dated November 4, 2019.

The amendment revises certain staffing and training requirements, reports, programs, and editorial changes in the TS Section 1.1, "Definitions," and Section 5.0, "Administrative Controls," that will no longer be applicable once DAEC is permanently defueled.

A copy of our related safety evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

/RA – S. Wall for/

Mahesh L. Chawla, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-331

Enclosures:
1. Amendment No. 309 to DPR-49
2. Safety Evaluation

cc: Listserv

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NEXTERA ENERGY DUANE ARNOLD, LLC

DOCKET NO. 50-331

DUANE ARNOLD ENERGY CENTER

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 309
License No. DPR-49

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by NextEra Energy Duane Arnold, LLC dated April 19, 2019, as supplemented by letter dated November 4, 2019, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Renewed Facility Operating License No. DPR-49 is hereby amended to read as follows:

> The Technical Specifications contained in Appendix A, as revised through Amendment No. 309, are hereby incorporated in the license. NextEra Energy Duane Arnold, LLC shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective upon the licensee's submittal of the required 10 CFR 50.82(a)(1)(ii) certification that DAEC has been permanently defueled and shall be implemented within 30 days from the amendment effective date.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA – R. Kuntz for/

Nancy L. Salgado, Chief
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Renewed Facility Operating License and Technical Specifications

Date of Issuance: January 2, 2020

ATTACHMENT TO LICENSE AMENDMENT NO. 309

DUANE ARNOLD ENERGY CENTER

RENEWED FACILITY OPERATING LICENSE NO. DPR-49

DOCKET NO. 50-331

Renewed Facility Operating License No. DPR-49

Replace the following page of the Renewed Facility Operating License No. DPR-49 with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating area of change.

INSERT	REMOVE
Page 3	Page 3

Technical Specifications

Replace the following pages of Appendix A, Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

INSERT	REMOVE
1.1-1	1.1-1
1.1-7	1.1-7
5.0-1	5.0-1
5.0-2	5.0-2
5.0-3	5.0-3
5.0-4	5.0-4
5.0-5	5.0-5
5.0-19	5.0-19
5.0-20	5.0-20
5.0-21	5.0-21
--	5.0-21a

C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I; Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

NextEra Energy Duane Arnold, LLC is authorized to operate the Duane Arnold Energy Center at steady state reactor core power levels not in excess of 1912 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 309, are hereby incorporated in the license. NextEra Energy Duane Arnold, LLC shall operate the facility in accordance with the Technical Specifications.

(a) For Surveillance Requirements (SRs) whose acceptance criteria are modified, either directly or indirectly, by the increase in authorized maximum power level in 2.C.(1) above, in accordance with Amendment No. 243 to Facility Operating License DPR-49, those SRs are not required to be performed until their next scheduled performance, which is due at the end of the first surveillance interval that begins on the date the Surveillance was last performed prior to implementation of Amendment No. 243.

(b) Deleted.

(3) Fire Protection Program

NextEra Energy Duane Arnold, LLC shall implement and maintain in effect all provisions of the approved fire protection program that comply with 10 CFR 50.48(a) and 10 CFR 50.48(c), as specified in the licensee amendment request dated August 5, 2011 (and supplements dated October 14, 2011, April 23, 2012, May 23, 2012, July 9, 2012, October 15, 2012, January 11, 2013, February 12, 2013, March 6, 2013, May 1, 2013, May 29, 2013, two supplements dated July 2, 2013, and supplements dated August 5, 2013 and August 28, 2013) and as approved in the safety evaluation report dated September 10, 2013. Except where NRC approval for changes or deviations is required by 10 CFR 50.48(c), and provided no other regulation, technical specification, license condition or requirement would require prior NRC approval, the licensee may make changes to the fire protection program without prior approval of the Commission if those changes satisfy the provisions set forth in 10 CFR 50.48(a) and 10 CFR 50.48(c), the change does not require a change to a technical specification or a license condition, and the criteria listed below are satisfied.

1.0 USE AND APPLICATION

1.1 Definitions

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

Term	Definition
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 bundle at the specified height divided by the number of fuel rods in the fuel bundle 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 required by Technical Specification Section 5.3.2.
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.

(continued)

1.1 Definitions (continued)

MINIMUM CRITICAL POWER RATIO (MCPR)	film boiling occur intermittently with neither type being completely stable.
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 an individual who complies with the provisions of Technical Specifications Section 5.3.1.
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.
RATED THERMAL POWER (RTP)	RTP shall be a total reactor core heat transfer rate to the reactor coolant of 1912 MWt.
REACTOR PROTECTION SYSTEM (RPS) RESPONSE TIME	The RPS RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its RPS trip setpoint at the channel sensor until de-energization of the scram pilot valve solenoids. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured.

(continued)

5.0 ADMINISTRATIVE CONTROLS

5.1 Responsibility

5.1.1 The plant manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.

The plant manager or his designee shall approve, prior to implementation, each proposed test, experiment or modification to systems or equipment that affect safe storage and maintenance of spent nuclear fuel.

5.1.2 The Operations Shift Manager shall be responsible for the shift command function.

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 facility organization positions. These relationships shall be documented and updated, as appropriate, in organizational descriptions. These organizational descriptions shall be documented in the UFSAR or QA Program Description;

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 spent nuclear fuel;

c. The corporate officer shall have responsibility for the overall facility safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the facility to ensure safe management of spent nuclear fuel.

d. The individuals who train the CERTIFIED FUEL HANDLERS and those who carry out health physics, 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.

(continued)

5.2 Organization (continued)

5.2.2 Facility Staff

The facility organization shall meet the following:

a. Each on-duty shift shall include at least the following shift staffing:

- One (1) Operations Shift Manager (see f below); and
- Two (2) NON-CERTIFIED OPERATORS (see g below)

b. Shift crew composition may be less than the minimum requirement 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. During such absences, no fuel movement or movement of loads over the spent fuel shall be permitted. This provision does not permit any shift crew position to be unmanned upon shift change due to an incoming shift crew member being late or absent.

c. At times when nuclear fuel is stored in the spent fuel pool, at least one (1) person qualified to stand watch in the Control Room (NON-CERTIFIED OPERATOR or CERTIFIED FUEL HANDLER) shall be present in the Control Room.

d. Oversight of fuel handling operations shall be provided by a CERTIFIED FUEL HANDLER.

e. A person qualified to implement radiation protection procedures shall be on site during movement of fuel and during movement of loads over the fuel.

f. The Operations Shift Manager shall be a CERTIFIED FUEL HANDLER.

g. The position of NON-CERTIFIED OPERATOR may be filled by a CERTIFIED FUEL HANDLER.

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5.0 ADMINISTRATIVE CONTROLS

5.3 Facility Staff Qualifications

5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in ANSI/ANS 3.1-1978. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.

5.3.2 The CERTIFIED FUEL HANDLER shall be qualified to the NRC-approved training and retraining program for CERTIFIED FUEL HANDLERS. The NRC-approved training and retraining program for CERTIFIED FUEL HANDLERS shall be maintained.

5.0 ADMINISTRATIVE CONTROLS

5.6 Reporting Requirements

The following reports shall be submitted in accordance with 10 CFR 50.4.

5.6.1 DELETED

5.6.2 Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the facility during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Assessment Manual (ODAM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODAM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in Regulatory Guide 4.8. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

(continued)

5.6 Reporting Requirements (continued)

5.6.3 Radioactive Material Release Report

The Radioactive Material Release Report covering the operation of the facility during the previous calendar year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the facility. The material provided shall be consistent with the objectives outlined in the ODAM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

5.6.4 DELETED

5.6.5 DELETED

(continued)

5.6 Reporting Requirements

5.6.6 PAM Report

When a report is required by Condition B or F of LCO 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," a report shall be submitted within the following 14 days. The report shall outline the preplanned alternate method(s) of monitoring, describe the degree to which the alternate method(s) are equivalent to the installed PAM channels, justify the areas in which they are not equivalent, the cause of the inoperability, and the plans and schedule for restoring the instrumentation channels of the Function to OPERABLE status.

5.6.7 DELETED

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 309 TO RENEWED

FACILITY OPERATING LICENSE NO. DPR-49

NEXTERA ENERGY DUANE ARNOLD, LLC

DUANE ARNOLD ENERGY CENTER

DOCKET NO. 50-331

1.0 INTRODUCTION

By application dated April 19, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19109A031), as supplemented by letter dated November 4, 2019 (ADAMS Accession No. ML19308A059), NextEra Energy Duane Arnold, LLC (NEDA) (the licensee), requested changes to the technical specifications (TSs) for Duane Arnold Energy Center (DAEC). The proposed changes would revise certain staffing and training requirements, reports, programs, and editorial changes contained in the TS Sections 1.1, "Definitions"; and 5.0, "Administrative Controls," that will no longer be applicable once DAEC is permanently defueled.

The supplement dated November 4, 2019, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC or Commission) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on July 2, 2019 (84 FR 31635).

2.0 REGULATORY EVALUATION

2.1 Background

By letter dated January 18, 2019 (ADAMS Accession No. ML19023A196), the licensee submitted notification of Permanent Cessation of Power Operations for DAEC. In this letter, NEDA provided notification to the NRC of its intent to permanently cease power operations in the fourth quarter of 2020. After certifications of permanent cessation of power operations and permanent removal of fuel from the reactor vessel for DAEC are submitted in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, Section 82(a)(1)(i) and (ii), the 10 CFR Part 50 license will no longer authorize reactor operation or placement or retention of fuel in the reactor vessel. As a result, licensed reactor operators (ROs) will no longer be required to support plant operating activities. Instead, Certified Fuel Handlers (CFHs) will perform activities associated with decommissioning and irradiated fuel handling and

management. By letter dated August 28, 2019 (ADAMS Accession No. ML19204A287), the NRC approved the CFH Training and Retraining Program for DAEC.

2.2 Regulatory Requirements

The regulatory requirements and guidance that the NRC staff considered in its review of the license amendment request are:

- The regulations under 10 CFR 50.82(a)(1) require that when a licensee has determined to permanently cease operations that the licensee shall, within 30 days, submit a written certification to the NRC, consistent with the requirements of 10 CFR 50.4(b)(8), and once fuel has been permanently removed from the reactor vessel, the licensee shall submit a written certification to the NRC that meets the requirements of 10 CFR 50.4(b)(9).

- The regulations under 10 CFR 50.82(a)(2) state: "Upon docketing of the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel, or when a final legally effective order to permanently cease operations has come into effect, the 10 CFR part 50 license no longer authorizes operation of the reactor or emplacement or retention of fuel into the reactor vessel."

- The regulations under 10 CFR 50.36 establish the requirements for TSs. Paragraph 10 CFR 50.36(c)(5), Administrative Controls, identifies that an Administrative Controls section shall be included in the TSs and shall include provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure operation of the facility in a safe manner. This license amendment request is proposing changes to the Administrative Controls section, with conforming changes proposed to additional sections, consistent with the pending decommissioning status of the plant. This request applies the principles identified in 10 CFR 50.36(c)(6), Decommissioning, for a facility which has submitted certifications required by 10 CFR 50.82(a)(1) and proposes changes to the Administrative Controls appropriate for the DAEC permanently defueled condition. As 10 CFR 50.36(c)(6) states, this type of change should be considered on a case-by-case basis.

- The regulations under 10 CFR 50.54(m) establish the requirements for having Reactor Operators and Senior Reactor Operators (SROs) licensed in accordance with 10 CFR Part 55 based on plant conditions. Given the impending permanent cessation of operation for DAEC, the requirements of this section will no longer apply once the certifications required by 10 CFR 50.82(a)(1) have been docketed and it will be permissible to remove those positions from the TSs.

- The regulation under 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," requires the use of a Systems Approach to Training (SAT) for personnel positions, including Certified Fuel Handlers.

3.0 TECHNICAL EVALUATION

The review of the changes is broken into the following sections: (1) Section 1.0, "Definitions," (2) Section 5.1, "Responsibility," (3) Section 5.2.1, "Onsite and Offsite Organizations," (4) Section 5.2.2, "Unit Staff," (5) Section 5.3, "Unit Staff Qualifications," (6) Section 5.6, "Reporting Requirements," (7) Section 5.6.5, "Core Operating Limits Report (COLR)," and (8) Section 5.6.7, "Reactor Coolant System (RCS) Pressure and Temperature Limits Report."

3.1 Proposed Changes to TS Section 1.1, "Definitions"

Current TS Section 1.1

The current DAEC TS Section 1.1 does not have a definition for a CFH or a Non-Certified Operator.

Proposed Changes to TS Section 1.1

NEDA proposed to add the following two definitions to TS Section 1.1:

CERTIFIED FUEL HANDLER	A CERTIFIED FUEL HANDLER is an individual who complies with the provisions of the Certified Fuel Handler training program required by Technical Specification Section 5.3.2.
NON-CERTIFIED OPERATOR	A NON-CERTIFIED OPERATOR is an individual who complies with the provisions of Technical Specifications Section 5.3.1.

NRC Staff Technical Evaluation of Proposed Changes to TS Section 1.1

The licensee proposed to modify TS Section 1.1, to include new definitions for a CFH and a Non-Certified Operator. The CFH Training and Retraining Program for DAEC was previously approved by the NRC staff on August 29, 2019 (ADAMS Accession No. ML19204A287). The proposed TS 5.3.2 states that an NRC-approved training and retraining program for CFHs shall be maintained. The NRC staff reviewed the proposed definition for a CFH and finds that it is acceptable as it conforms to the usage contained in the "Administrative Controls" section of the DAEC TS.

The terminology "Non-Certified Operator" is used in the proposed renamed TS 5.2.2, "Facility Staff." Also, the proposed renamed TS 5.3, "Facility Staff Qualifications," Section 5.3.1, defines qualification requirements that are applicable to all members of the facility staff and, therefore, extend to the Non-Certified Operator. The NRC staff reviewed the proposed definition for a Non-Certified Operator and finds that it is acceptable as it conforms to the usage contained in the "Administrative Controls" section of the DAEC TS.

NRC Staff Conclusion of Proposed Changes to TS Section 1.1

The NRC reviewed the proposed administrative changes to TS Section 1.1. The NRC staff finds the proposed changes to TS Section 1.1 acceptable since they conform to the usage of definitions contained in the "Administrative Controls" section of the DAEC TS.

3.2 Proposed Changes to TS Section 5.1, "Responsibility"

Current TS Section 5.1

The current TS 5.1, "Responsibility," states:

> 5.1.1 The plant superintendent shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.
>
> The plant manager or his designee shall approve, prior to implementation, each proposed test, experiment or modification to systems or equipment that affects nuclear safety.
>
> 5.1.2 The Operations Shift Manager shall be responsible for the control room command function. During any absence of the Operations Shift Manager from the control room while the unit is in MODE 1, 2, or 3, an individual with an active Senior Reactor Operator License (SRO) shall be designated to assume the control room command function. During any absence of the Operations Shift Manager from the control room while the unit is in MODE 4 or 5, an individual with an active SRO license or Reactor Operator license shall be designated to assume the control room command function.

Proposed Changes to TS Section 5.1

NEDA proposed the following change to TS 5.1.1:

> The plant manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.
>
> The plant manager or designee shall approve, prior to implementation, each proposed test, experiment or modification to systems or equipment that affect safe storage and maintenance of spent nuclear fuel.

NEDA proposed the following change to TS 5.1.2:

> The Operations Shift Manager shall be responsible for the shift command function.

NRC Staff Technical Evaluation of Proposed Changes to TS Section 5.1

The TS 5.1 identifies the responsibilities for the control room command function associated with modes of plant operation, and is based on personnel positions and qualifications for an operating plant. It identifies the need for a delegation of authority for command in an operating plant when the principal assignee leaves the control room.

In TS 5.1.1, NEDA proposed to change "unit" to "facility"; this is an administrative change. This administrative change reflects the fact that DAEC will be permanently shut down and defueled after submitting to the NRC the certifications required by 10 CFR 50.82(a)(1). The term "unit" implies operating; the term "facility" more appropriately represents the permanently shut down

and defueled condition. Overall, management and DAEC staff responsibilities and the description of the facility are unchanged.

NEDA proposed to change TS 5.1.2 to eliminate the discussion about transfer of control of the control room command function when the Operations Shift Manager (OSM) leaves the control room and eliminate the mode dependency for this function and personnel qualifications associated with an operating plant. The proposed change establishes the OSM as having command of the shift. Delegation of command is unnecessary once DAEC is in the permanently defueled condition with fuel in the spent fuel pool (SFP). Any event involving loss of SFP cooling would evolve slowly. While the shift would continue to be staffed with qualified personnel consistent with the proposed TS 5.2.2, continuous staffing of the control room by the OSM would not be necessary to protect the environment and the health and safety of the public.

NRC Staff Conclusion of Proposed Changes to TS Section 5.1

The changes from "unit" to "facility" is an administrative change. The OSM shall be responsible for the shift command function at DAEC. Once the certifications required by 10 CFR 50.82(a)(1) have been submitted to the NRC, the DAEC 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. Therefore, there will be no operational modes at DAEC after NEDA submits to the NRC both certifications required by 10 CFR 50.82(a)(1). The NRC staff finds that the delegation of control room command is unnecessary once DAEC is in the permanently defueled condition with fuel in the SFP since any event involving loss of SFP cooling would evolve slowly. The NRC staff finds that the CFH will have command function regardless of his/her location in the facility and still protect the environment and the health and safety of the public. The NRC staff reviewed the proposed changes and finds the proposed changes to TS 5.1 reflect the scope of the activities that would result from the permanent cessation of operations and permanent fuel removal and, therefore, are acceptable.

3.3 Proposed Changes to TS Section 5.2, "Organization"

Current TS Section 5.2

The current TS 5.2.1, "Onsite and Offsite Organizations," and TS 5.2.2, "Unit Staff," state:

> 5.2.1 Onsite and Offsite Organizations
>
> Onsite and offsite organizations shall be established for unit operation and corporate management, respectively. The onsite and offsite organizations shall include the positions for activities affecting safety of the nuclear power plant.
>
> a. Lines of authority, responsibility and communication shall be defined and established throughout the highest management levels, intermediate levels, and all operating organization positions. These relationships shall be documented and updated, as appropriate, in organizational 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 the Technical Specifications shall be documented in the UFSAR or QA Program Description;

b. The plant manager shall be responsible for overall safe operation of the plant and shall have control over those onsite activities necessary for safe operation and maintenance of the plant;

c. The corporate officer with direct responsibility for the plant shall have corporate responsibility for overall plant nuclear safety and shall take any measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the plant to ensure nuclear safety; and

d. The individuals who train the operating staff, carry out health physics, or perform quality assurance functions may report to the appropriate onsite manager; however, these individuals shall have sufficient organizational freedom to ensure their independence from operating pressures.

5.2.2 Unit Staff

The unit staff organization shall also include the following:

a. A non-licensed operator shall be assigned to the reactor when containing fuel and an additional non-licensed operator shall be assigned to the reactor when operating in MODES 1, 2, or 3.

b. Shift crew composition shall meet the requirements stipulated herein and in 10 CFR 50.54(m).

c. Shift crew composition may be less than the minimum requirements of 10 CFR 50.54(m)(2)(i) and 5.2.2.a and 5.2.2.g 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.

d. A person qualified to implement radiation protection procedures shall be on site when fuel is in the reactor. 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.

e. Not used.

f. The Operations Manager or Operations Supervisors shall hold an SRO license.

g. An individual shall provide advisory technical support to the unit operations shift crew in the areas of thermal hydraulics, reactor engineering, and plant analysis with regard to the safe operation

of the unit. This individual shall meet the qualifications specified by the Commission Policy Statement on Engineering Expertise on Shift. The function is not required in MODES 4 and 5.

Proposed Changes to TS 5.2

NEDA proposed the following changes to TS 5.2.1 and TS 5.2.2:

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 facility organization positions. These relationships shall be documented and updated, as appropriate, in organizational descriptions. These organizational descriptions shall be documented in the UFSAR or QA Program Description;

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 spent nuclear fuel;

c. The corporate officer shall have responsibility for the overall facility safety and shall take measures needed to ensure acceptable performance of the staff in operating, maintaining, and providing technical support to the facility to ensure safe management of spent nuclear fuel.

d. The individuals who train the CERTIFIED FUEL HANDLERS and those who carry out health physics, 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.

5.2.2 Facility Staff

The facility staff organization shall meet the following:

a. Each on-duty shift shall include at least the following shift staffing:

- One (1) Operations Shift Manager (see f below); and
- Two (2) NON-CERTIFIED OPERATORS (see g below)

b. Shift crew composition may be less than the minimum requirement of 5.2.2.a for a period 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. During such absences, no fuel movement or movement of loads over the spent fuel shall be permitted. This provision does not permit any shift crew position to be unmanned upon shift change due to an incoming shift crew member being late or absent.

c. At times when nuclear fuel is stored in the spent fuel pool, at least one (1) person qualified to stand watch in the Control Room (NON-CERTIFIED OPERATOR or CERTIFIED FUEL HANDLER) shall be present in the Control Room.

d. Oversight of fuel handling operations shall be provided by a CERTIFIED FUEL HANDLER.

e. A person qualified to implement radiation protection procedures shall be on site during movement of fuel and during movement of loads over the fuel.

f. The Operations Shift Manager shall be a CERTIFIED FUEL HANDLER.

g. The position of NON-CERTIFIED OPERATOR may be filled by a CERTIFIED FUEL HANDLER.

NRC Staff Technical Evaluation of the Proposed Changes to TS 5.2

In TS 5.2.1, NEDA proposed to change (1) the "safety of the nuclear power plant" to the "safety of the nuclear fuel"; (2) "safe operation and maintenance of the plant" to "safe storage and handling of nuclear fuel"; and (3) "nuclear safety" to "safe management of nuclear fuel." Once NEDA submits to the NRC the certifications required in 10 CFR 50.82(a)(1), DAEC's 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. NEDA will still be responsible for the safety of the spent fuel in the SFP and/or the dry casks, as well as any handling of the spent fuel.

In TS 5.2.1, NEDA proposed to change "unit" and "plant" to "facility"; this is an administrative change. This administrative change reflects that DAEC will be permanently shutdown and defueled after submitting to the NRC the certifications required by 10 CFR 50.82(a)(1). The term "unit" and "plant" implies operating; the term "facility" more appropriately represents a permanently shut down and defueled condition.

The TS 5.2.1.a change requires lines of authority, responsibility and communications relationships for key personnel positions be documented in the Updated Final Safety Analysis Report (UFSAR) or Quality Assurance (QA) Program Description. This change reflects that DAEC will be permanently shutdown and defueled after submitting to the NRC the certifications required by 10 CFR 50.82(a)(1).

The TS 5.2.1.b change identifies the organizational position responsible for the safe operation of the facility, and for control of activities necessary for the safe storage and maintenance of the spent fuel. To reflect the permanently defueled condition, the responsibility for control of activities necessary for the safe operation and maintenance of the plant is changed to the

responsibility for safe storage and maintenance of the spent nuclear fuel. The change from "plant" to "facility" is administrative, as discussed above.

The TS 5.2.1.c change identifies the organizational position responsible for overall facility safety. NEDA proposed to change the responsibilities of a corporate officer are changed from "overall nuclear safety" and providing support to the "plant to ensure nuclear safety" to responsibility for the "overall facility" and providing support to the "facility to ensure safe management of spent nuclear fuel," respectively. This reflects the fact that DAEC will be permanently shutdown and defueled after submitting to the NRC the certifications required by 10 CFR 50.82(a)(1).

The TS 5.2.1.d addresses the requirement for organizational independence of the personnel who train the operations staff, radiation safety personnel, and quality assurance personnel from operating pressures. NEDA proposed to replace "operating staff" with "CERTIFIED FUEL HANDLERS," and "their independence from operating pressures" with "their ability to perform their assigned functions." This reflects the fact that DAEC will be permanently shutdown and defueled after submitting to the NRC the certifications required by 10 CFR 50.82(a)(1).

In TS 5.2.2, NEDA proposed to change "Unit Staff" to "Facility Staff." This is an administrative change reflects the fact that DAEC will be permanently shutdown and defueled after submitting the certifications required by 10 CFR 50.82(a)(1). The term "plant" implies operating; the term "facility" more appropriately represents the permanently shut down and defueled condition.

The current version of TS 5.2.2.a stipulates when non-licensed operators must be onsite or assigned to the operating shift, based on the status of fuel in the reactor or operational mode. Since DAEC will no longer be authorized to operate the reactor or emplace or retain fuel in the reactor vessel once the certifications under 10 CFR 50.82(a)(1) are submitted to the NRC, there will no longer be operational modes at DAEC. NEDA proposed to change the minimum requirement to a minimum crew complement of one OSM and two Non-Certified Operator. This reflects the reduced number of systems compared to an operating reactor required to provide and support SFP cooling and monitor parameters, such as level and temperature, while still maintaining the ability to ensure spent fuel handling operations are carried out in a safe manner. The spectrum of credible accidents and operational events, and the quantity and complexity of activities required for safety will be greatly reduced from that at an operating plant. The OSM will be qualified as a CFH in accordance with the proposed TS 5.2.2.f. In this position, this individual will retain command and control responsibility for operational decisions and will be responsible for the functions required for event reporting and emergency response.

The current TS 5.2.2.b is deleted. Since DAEC will no longer be authorized to operate the reactor or emplace or retain fuel in the reactor vessel once the certifications under 10 CFR 50.82(a)(1) are submitted to the NRC, DAEC will not be required to have operators licensed pursuant to 10 CFR Part 55. The requirement for an operating crew composition in accordance with 10 CFR 50.54(m) is removed. Therefore, this requirement is deleted.

The renumbered TS 5.2.2.b change addresses the conditions under which the minimum shift complement may be reduced. It allows for shift crew composition to be less than the minimum requirement of 10 CFR 50.54(m)(2)(i), and TS 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. The three limitations during such periods are added to ensure that no fuel movement or movement of loads over the spent fuel occur during an absence. NEDA proposed

to remove the reference to 10 CFR 50.54(m)(2)(i), because DAEC will not return to operation once the certifications under 10 CFR 50.82(a)(1) are submitted to the NRC, and the requirement for licensed operating personnel will no longer be applicable. NEDA proposed to remove the reference to TS 5.2.2.g to be consistent with the proposed change to delete the previous TS 5.2.2.g.

In the proposed new TS 5.2.2.c, NEDA proposed to add the requirement for having one qualified watch stander (either a Non-Certified Operator or CFH) in the control room when fuel is stored in the SFP. This reflects the reduced requirement for control room personnel training and qualification for a facility that is no longer authorized to operate the reactor or emplacement or retention of fuel in the reactor vessel once the certifications of 10 CFR 50.82(a)(1) have been submitted to the NRC. The training and qualification for the Non-Certified Operator will be determined in accordance with the SAT as defined in 10 CFR 55.4. This process ensures that the Non-Certified Operator will be qualified to perform the functions necessary to monitor and ensure safe storage of fuel. The SAT process requires: (1) systematic analysis of the jobs to be performed; (2) learning objectives to be derived from the analysis which describe desired performance after training; (3) training design and implementation to be based on the learning objectives; (4) evaluation of trainee mastery of the objectives during training; and (5) evaluation and revision of the training based on the performance of trained personnel in the job setting. The licensee stated the main control room (MCR) will remain the physical center of the command function; however, since control of activities may be performed either remotely from the control room or locally in the facility, the location of the command center is functionally where the OSM is located in accordance with the proposed TS 5.1.2. Communication capabilities are available outside the MCR between the operators and facility personnel to safely manage the storage and handling of spent nuclear fuel. Adding this requirement ensures that the primary functions of the MCR at a permanently shutdown reactor, such as monitoring plant systems, response to abnormal conditions, communications with onsite personnel and offsite agencies, emergency response, and coordination of facility activities will be maintained at all times when fuel is stored in the SFP.

In the proposed new TS 5.2.2.d, DAEC will have oversight of fuel handling operations performed by a CFH. This new requirement ensures that movement of spent nuclear fuel is only performed under the oversight of an individual who has been trained and qualified on the procedures, processes, requirements, and standards for safe movement of spent nuclear fuel. Oversight of fuel handling operations refers to the authorization from the OSM/CFH to move fuel, because the proposed TS 5.2.2.f requires the OSM to be a CFH.

In the renumbered TS 5.2.2.e, the requirement for a person qualified to implement radiation protection procedures is to be on site when fuel is in the reactor and actions are to be taken if the position is vacant for not more than 2 hours, are removed. Once the certification of 10 CFR 50.82 is submitted, DAEC will no longer be licensed to have fuel in the reactor and these requirements are not necessary. These requirements are replaced with a requirement for a qualified person to implement radiation protection procedures, and to be on site during movement of fuel and during movement of loads over the fuel.

The TS 5.2.2.f establishes the requirement for the Operations Manager or Operations Supervisors, to hold an SRO license. NEDA proposed to revise TS 5.2.2.f to replace the requirement with a requirement that the proposed retitled OSM be a CFH. Once the certifications under 10 CFR 50.82(a)(1) have been submitted to the NRC, the requirements of 10 CFR 50.54(m) will no longer be applicable, because the DAEC 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor

vessel. These certifications also obviate the need for the operators' licenses specified in 10 CFR Part 55. Therefore, there is no longer a need for operations management staff to hold an SRO license. Replacing this with a requirement that the proposed retitled OSM be a CFH ensures that the senior individual on shift is appropriately trained and qualified in accordance with the NRC-approved fuel handler training program, to supervise shift activities. The DAEC management structure will not require positions above the proposed retitled OSM to be a CFH or attend equivalent training. NEDA stated that once DAEC is permanently shutdown and defueled, the time available to mitigate credible events is expected to be greater than that for current design basis events. As such, NEDA states that DAEC's management oversight of the facility can be performed by individuals meeting the applicable requirements of American National Standards Institute (ANSI)/American Nuclear Society (ANS) 3.1-1978 (as required by TS 5.3.1) and need not be qualified as CFHs.

The current TS 5.2.2.g is deleted. Since DAEC will no longer be authorized to operate the reactor or emplace or retain fuel in the reactor vessel once the certifications under 10 CFR 50.82(a)(1) are submitted to the NRC, DAEC will not be required to have an advisory technical support position. Therefore, this requirement is deleted.

In the proposed new TS 5.2.2.g, NEDA proposes to add the provision that the non-certified operator position required in TS 5.2.2.a may be filled by either a non-certified operator or by a CFH. This minimum shift crew composition is appropriate for the safe management of spent nuclear fuel at a permanently defueled facility.

In TS 5.2, editorial changes have been made to remove words associated with plant operation (i.e., "unit," "reactor," etc.). These changes have been made to reflect the new function of the facility to safely store spent nuclear fuel. In addition, the operating staff are now considered CFHs in accordance with an approved training program. Operators no longer have licenses and CFH are adequately trained to address all facility functions.

The proposed changes are acceptable because there is no reduction in management oversight or responsibilities. The changes reflect a reduction in scope of activities resulting from permanent cessation of operations and the safe storage of fuel.

NRC Staff Conclusion of the Proposed Changes to TS 5.2

Once the certifications under 10 CFR 50.82(a)(1) have been submitted to the NRC, the DAEC 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. The proposed changes to the DAEC organization reflect the fact that DAEC will be permanently defueled so the focus is changed from operating nuclear safety to the safe storage and handling of nuclear fuel. Once DAEC is permanently shutdown and defueled, the time available to mitigate credible events is expected to be greater than that for current design basis events. The NRC staff reviewed the proposed changes and finds that the proposed changes to TS 5.2 reflect the scope of the activities that would result from the permanent cessation of operations and permanent fuel removal, and, therefore, are acceptable.

3.4 Proposed Changes to TS Section 5.3, "Unit Staff Qualifications"

Current TS 5.3

The current TS 5.3, "Unit Staff Qualifications" states:

> 5.3 Unit Staff Qualifications
>
> 5.3.1 Each member of the unit staff shall meet or exceed the minimum qualifications referenced for comparable positions in ANSI/ANS 3.1-1978. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.
>
> 5.3.2 For the purpose of 10 CFR 55.4, a licensed Senior Reactor Operator (SRO) and a licensed Reactor Operator (RO) are those individuals who, in addition to meeting the requirements of TS 5.3.1, perform the functions described in 10 CFR 50.54(m).

Proposed Changes to TS 5.3

NEDA proposed the following changes to TS 5.3:

> 5.3 Facility Staff Qualifications
>
> 5.3.1 Each member of the facility staff shall meet or exceed the minimum qualifications referenced for comparable positions in ANSI/ANS 3.1-1978. The radiation protection manager shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975.
>
> 5.3.2 The CERTIFIED FUEL HANDLER shall be qualified to the NRC-approved training and retraining program for CERTIFIED FUEL HANDLERS. The NRC-approved training and retraining program for CERTIFIED FUEL HANDLERS shall be maintained.

NRC Staff Technical Evaluation of the Proposed Changes to TS 5.3

The proposed change to TS 5.3 from "Unit Staff Qualifications" to "Facility Staff Qualifications" is an administrative change. This administrative change reflects that DAEC will be permanently shutdown and defueled after submitting to the NRC the certifications under 10 CFR 50.82(a)(1). The term "plant" implies operating; the term "facility" more appropriately represents the permanently shut down and defueled condition.

The TS 5.3.2 defines SROs and ROs as the individuals who perform the functions defined in the regulations under 10 CFR 50.54(m). Deletion of TS 5.3.5 is acceptable because neither 10 CFR 50.54(m) nor the requirement for licensed operators per 10 CFR Part 55 apply following the submittal of the certifications under 10 CFR 50.82(a)(1). NEDA proposed to add new language to TS 5.3.2 to require that an NRC-approved fuel handler training and retraining program for the CFHs be maintained. The fuel handler training program approved by the NRC ensures that the qualifications of CFHs are commensurate with the tasks to be performed and the conditions requiring response. The regulation under 10 CFR 50.120, "Training and qualification of nuclear power plant personnel," requires training programs to be derived using a

SAT as defined in 10 CFR 55.4. Although the requirements of 10 CFR 50.120 apply to holders of an operating license issued under 10 CFR Part 50, and the DAEC license will no longer authorize operation following submittal of the certifications required by 10 CFR 50.82(a)(1), the DAEC CFH Training and Retraining Program nonetheless aligns with those requirements. The CFHs are non-licensed operators and the requirement of 10 CFR 50.120 apply to all non-licensed operators for Part 50 licenses. The DAEC CFH Training and Retraining Program provides adequate confidence that appropriate SAT based training of personnel who will perform the duties of a CFH is conducted to ensure the facility is maintained in a safe and stable condition.

NRC Staff Conclusion of the Proposed Changes to TS 5.3

Once the certifications under 10 CFR 50.82(a)(1) have been submitted to the NRC, the DAEC 10 CFR Part 50 license will no longer authorize operation of the reactor or emplacement or retention of fuel in the reactor vessel. The proposed changes to the DAEC facility staff qualifications reflect the fact that DAEC will be permanently defueled so the focus is changed from operating nuclear safety to the safe storage and handling of nuclear fuel. Once DAEC is permanently shutdown and defueled, the time available to mitigate credible events is expected to be greater than that for current design basis events. The NRC staff reviewed the proposed changes and finds the proposed changes to TS 5.3 reflect the scope of the activities that would result from the permanent cessation of operations and permanent fuel removal, and, therefore, are acceptable.

3.5 Proposed Changes to TS Section 5.6.2, "Annual Radiological Environmental Operating Report," and TS Section 5.6.3, "Radioactive Effluent Release Report"

Current TS 5.6.2 and TS 5.6.3

The current TS 5.6.2 and 5.6.3 state:

> 5.6.2 Annual Radiological Environmental Operating Report
>
> The Annual Radiological Environmental Operating Report covering the operation of the unit during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Assessment Manual (ODAM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.
>
> The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODAM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in Regulatory Guide 4.8. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

5.6.3 Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the unit. The material provided shall be consistent with the objectives outlined in the ODAM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

Proposed Changes to TS 5.6.2 and TS 5.6.3

5.6.2 Annual Radiological Environmental Operating Report

The Annual Radiological Environmental Operating Report covering the operation of the facility during the previous calendar year shall be submitted by May 15 of each year. The report shall include summaries, interpretations, and analyses of trends of the results of the Radiological Environmental Monitoring Program for the reporting period. The material provided shall be consistent with the objectives outlined in the Offsite Dose Assessment Manual (ODAM), and in 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, and IV.C.

The Annual Radiological Environmental Operating Report shall include the results of analyses of all radiological environmental samples and of all environmental radiation measurements taken during the period pursuant to the locations specified in the table and figures in the ODAM, as well as summarized and tabulated results of these analyses and measurements in the format of the table in Regulatory Guide 4.8. In the event that some individual results are not available for inclusion with the report, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted in a supplementary report as soon as possible.

5.6.3 Radioactive Effluent Release Report

The Radioactive Effluent Release Report covering the operation of the facility during the previous calendar year shall be submitted prior to May 1 of each year in accordance with 10 CFR 50.36a. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the facility. The material provided shall be consistent with the objectives outlined in the ODAM and Process Control Program and in conformance with 10 CFR 50.36a and 10 CFR Part 50, Appendix I, Section IV.B.1.

NRC Staff Technical Evaluation of the Proposed Changes to TS 5.6.2 and TS 5.6.3

NEDA proposed to change "unit" to "facility" in TS 5.6.2 and TS 5.6.3. This administrative change that reflects that DAEC will be permanently shutdown and defueled after submitting to

the NRC the certifications under 10 CFR 50.82(a)(1). The term "unit" implies operating; the term "facility" more appropriately represents the permanently shut down and defueled condition.

NRC Staff Conclusion of the Proposed Changes to TS 5.6.2 and TS 5.6.3

The proposed changes to TS 5.6.2 and TS 5.6.3 are administrative and the NRC staff finds the proposed changes to TS 5.6.2 and TS 5.6.3 acceptable since it involves no technical changes

3.6 Proposed Changes to TS Section 5.6.5, "CORE OPERATING LIMITS REPORT (COLR)"

Current TS 5.6.5

The current TS 5.6.5 states:

> 5.6.5 CORE OPERATING LIMITS REPORT (COLR)
>
> a. Core operating limits shall be established prior to each reload cycle, or prior to any remaining portion of a reload cycle, and shall be documented in the COLR for the following:
>
> 1. The Average Planar Linear Heat Generation Rate (APLHGR) for Specification 3.2.1;
>
> 2. The Minimum Critical Power Ratio (MCPR) for Specification 3.2.2;
>
> 3. Exclusion Region in the Power/Flow Map for Specification 3.4.1; and
>
> 4. The Maximum Critical Power Ratios (MCPR) in Table 3.3.2.1-1 for Specification 3.3.2.1.
>
> b. The analytical methods used to determine the core operating limits shall be those previously reviewed and approved by the NRC in General Electric Standard Application for Reactor Fuel, NEDE-24011-P-A, (GESTAR II). The revision number is the one approved at the time the reload fuel analyses are performed.
>
> c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal mechanical limits, core thermal hydraulic limits, Emergency Core Cooling Systems (ECCS) limits, nuclear limits such as SOM, transient analysis limits, and accident analysis limits) of the safety analysis are met.
>
> d. The COLR, including any midcycle revisions or supplements, shall be provided upon issuance for each reload cycle to the NRC.

Proposed Changes to TS 5.6.5

NEDA proposed that TS 5.6.5 be deleted.

NRC Staff Technical Evaluation of the Proposed Changes to TS 5.6.5

The COLR establishes, prior to each reload cycle, cycle specific parameter limits for plant operation. The COLR pertains only to an activity that does not apply in a permanently defueled condition. Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel are submitted to the NRC, the regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement of fuel into the reactor vessel under the 10 CFR Part 50 license. Based on these considerations, the requirements to develop and submit the COLR will be deleted from the TS. Consequently, Section 5.6.5 will be identified as "DELETED". The NRC staff finds the deletion of the COLR section to be acceptable since DAEC will be in a defueled state upon decommissioning.

3.7 Proposed Changes to TS Section 5.6.7, "Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)"

Current TS 5.6.7

The current TS 5.6.7 states:

> 5.6.7 Reactor Coolant System (RCS) PRESSURE AND TEMPERATURE LIMITS REPORT (PTLR)"
>
> a. RCS pressure and temperature limits for heat up, cooldown, low temperature operation, criticality, and hydrostatic testing as well as heatup and cooldown rates shall be established in the PTLR for the following:
>
> i) Limiting Conditions for Operation Section 3.4.9, "RCS Pressure and Temperature (P/T) Limits"
> ii) Surveillance Requirements Section 3.4.9, "RCS Pressure and Temperature (P/T) Limits"
>
> b. The analytical methods used to determine the RCS pressure and temperature limits shall be those previously reviewed and approved by the NRC, specifically those described in the following document:
>
> i) SIR-05-044-A, "Pressure-Temperature Limits Report Methodology for Boiling Water Reactors," Revision 1, dated June 2013.
>
> c. The PTLR shall be provided to the NRC upon issuance for each reactor vessel fluence period and for any revision or supplement thereto.

Proposed Changes to TS 5.6.7

NEDA proposed that TS 5.6.7 be deleted.

NRC Staff Technical Evaluation of the Proposed Changes to TS 5.6.7

The PTLR establishes 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. The PTLR pertains only to an activity that does not apply in a permanently defueled state of DAEC. Once the certifications for permanent cessation of operations and permanent removal of fuel from the reactor vessel are submitted to the NRC, the regulations stipulated in 10 CFR 50.82(a)(2) will no longer authorize operation of the reactor or placement of fuel into the reactor vessel under the 10 CFR Part 50 license. Based on these considerations, the requirements to develop and submit the PTLR will be deleted from the TS. Consequently, Section 5.6.7 will be identified as DELETED. The NRC staff finds the deletion of PTLR to be acceptable since DAEC will be in a defueled state upon decommissioning.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Iowa official was notified of the proposed issuance of the amendment on October 10, 2019. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes the requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes the surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding published in the *Federal Register* on July 2, 2019 (84 FR 31635). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) there is reasonable assurance that such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Date of issuance: January 2, 2020

SUBJECT: DUANE ARNOLD ENERGY CENTER - ISSUANCE OF AMENDMENT NO. 309 TO ALIGN TECHNICAL SPECIFICATIONS STAFFING AND ADMINISTRATIVE REQUIREMENTS (EPID L-2019-LLA-0082) DATED JANUARY 2, 2020

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