



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

July 13, 2016

Mr. Thomas A. Vehec  
Vice President  
NextEra Energy  
Duane Arnold Energy Center  
3277 DAEC Road  
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER - ISSUANCE OF AMENDMENT TO  
CORRECT EXAMPLES IN TECHNICAL SPECIFICATIONS SECTION 1.4,  
"FREQUENCY" (CAC NO. MF6540)

Dear Mr. Vehec:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 293 to Renewed Facility Operating License No. DPR-49 for the Duane Arnold Energy Center. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated July 24, 2015.

The amendment revises TS 1.4, "Frequency," by correcting Example 1.4-1 to be consistent with Technical Specifications Task Force (TSTF) Traveler TSTF-485, "Correct Example 1.4-1," Revision 0. In addition, the amendment revises Example 1.4-5 and Example 1.4-6 to be consistent with changes in accordance with TSTF-284, Revision 3.

A copy of the Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

A handwritten signature in black ink, appearing to read "Chawla" followed by a stylized flourish.

Mahesh L. Chawla, Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-331

Enclosures:

1. Amendment No. 293 to License No. DPR-49
2. Safety Evaluation

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NEXTERA ENERGY DUANE ARNOLD, LLC

DOCKET NO. 50-331

DUANE ARNOLD ENERGY CENTER

AMENDMENT TO RENEWED FACILITY OPERATING LICENSE

Amendment No. 293  
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 July 24, 2015, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 293, 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 as of its date of issuance and shall be implemented within 60 days of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read 'D. Wrona for', is written over the printed name and title.

David J. Wrona, Chief  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Renewed Facility Operating  
License No. DPR-49 and  
Technical Specifications

Date of Issuance: July 13, 2016.

ATTACHMENT TO LICENSE AMENDMENT NO. 293

RENEWED FACILITY OPERATING LICENSE NO. DPR-49

DOCKET NO. 50-331

Replace the following page of Renewed Facility Operating License DPR-49 with the attached revised page. The revised page is identified by amendment number and contains a marginal line indicating the area of change.

REMOVE  
Page 3

INSERT  
Page 3

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.

REMOVE  
1.4-3  
1.4-7  
1.4-8

INSERT  
1.4-3  
1.4-7  
1.4-8

1.4 Frequency (continued)

EXAMPLES

The following examples illustrate the various ways that Frequencies are specified. In these examples, the Applicability of the LCO (LCO not shown) is MODES 1, 2, and 3.

EXAMPLE 1.4-1

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
Perform CHANNEL CHECK.	12 hours

Example 1.4-1 contains the type of SR most often encountered in the Technical Specifications (TS). The Frequency specifies an interval (12 hours) during which the associated Surveillance must be performed at least one time. Performance of the Surveillance initiates the subsequent interval. Although the Frequency is stated as 12 hours, an extension of the time interval to 1.25 times the interval specified in the Frequency is allowed by SR 3.0.2 for operational flexibility. The measurement of this interval continues at all times, even when the SR is not required to be met per SR 3.0.1 (such as when the equipment is inoperable, a variable is outside specified limits, or the unit is outside the Applicability of the LCO). If the interval specified by SR 3.0.2 is exceeded while the unit is in a MODE or other specified condition in the Applicability of the LCO, and the performance of the Surveillance is not otherwise modified (refer to Examples 1.4-3 and 1.4-4), then SR 3.0.3 becomes applicable.

If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, then SR 3.0.4 becomes applicable. The Surveillance must be performed within the Frequency requirements of SR 3.0.2, as modified by SR 3.0.3, prior to entry into the MODE or other specified condition or the LCO is considered not met (in accordance with SR 3.0.1) and LCO 3.0.4 becomes applicable.

(continued)

1.4 Frequency

EXAMPLES  
(continued)

EXAMPLE 1.4-5

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
-----NOTE----- Only required to be performed in MODE 1. -----	
Perform complete cycle of the valve	7 days

The interval continues, whether or not the unit operation is in MODE 1, 2 or 3 (the assumed Applicability of the associated LCO) between performances.

As the Note modifies the required performance of the Surveillance, the Note is construed to be part of the "specified Frequency." Should the 7 day interval be exceeded while operation is not in MODE 1, this Note allows entry into and operation in MODES 2 and 3 to perform the Surveillance. The Surveillance is still considered to be performed within the "specified Frequency" if completed prior to entering MODE 1. Therefore, if the Surveillance were not performed within the 7 day (plus the extension allowed by SR 3.0.2) interval, but operation was not in MODE 1, it would not constitute a failure of the SR or failure to meet the LCO. Also, no violation of SR 3.0.4 occurs when changing MODES, even with the 7 day Frequency not met, provided operation does not result in entry into MODE 1.

Once the unit reaches MODE 1, the requirement for the Surveillance to be performed within its specified Frequency applies and would require that the Surveillance had been performed. If the Surveillance were not performed prior to entering MODE 1, there would then be a failure to perform a Surveillance within the specified Frequency, and the provisions of SR 3.0.3 would apply.

(continued)

1.4 Frequency

EXAMPLES  
(continued)

EXAMPLE 1.4-6

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>-----NOTE----- Not required to be met in MODE 3. -----</p>	
<p>Verify parameter is within limits.</p>	<p>24 hours</p>

Example 1.4-6 specifies that the requirements of this Surveillance do not have to be met while the unit is in MODE 3 (the assumed Applicability of the associated LCO is MODES 1, 2, and 3). The interval measurement for the Frequency of this Surveillance continues at all times, as described in Example 1.4-1. However, the Note constitutes an "otherwise stated" exception to the Applicability of this Surveillance. Therefore, if the Surveillance were not performed within the 24 hour interval (plus the extension allowed by SR 3.0.2), and the unit was in MODE 3, there would be no failure of the SR nor failure to meet the LCO. Therefore, no violation of SR 3.0.4 occurs when changing MODES to enter MODE 3, even with the 24 hour Frequency exceeded, provided the MODE change does not result in entry into MODE 2. Prior to entering MODE 2 (assuming again that the 24 hour Frequency were not met), SR 3.0.4 would require satisfying the SR.

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. 293, 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.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 293 TO FACILITY OPERATING LICENSE NO. DPR-49  
NEXTERA ENERGY DUANE ARNOLD, LLC  
DUANE ARNOLD ENERGY CENTER  
DOCKET NO. 50-331

1.0 INTRODUCTION

By letter dated July 24, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML15246A408), NextEra Energy Duane Arnold, LLC (the licensee) submitted a license amendment request regarding Duane Arnold Energy Center's (DAEC) technical specifications (TSs). The proposed changes would revise TS 1.4, "Frequency," by correcting Example 1.4-1 to be consistent with Technical Specifications Task Force (TSTF)-485, "Correct Example 1.4-1," Revision 0. In addition, the proposed changes revise Example 1.4-5 and Example 1.4-6, shown on TS pages 1.4-7 and 1.4-8 respectively. Due to administrative errors, TS pages 1.4-7 and 1.4-8 were not issued when amendment 258 was issued on June 24, 2005 (Reference 7.4). On June 24, 2005 (Ref. 7.5), NRC issued a correction letter to transmit TS pages 1.4-7 and 1.4-8 in addition to other TS pages missed by amendment 258. However, TS pages 1.4-7 and 1.4-8 still did not reflect the changes consistent with TSTF-284, revision 3.

2.0 REGULATORY EVALUATION

2.1 Background

TSTF-485, Revision 0, identifies a correction to TS Section 1.4, Example 1.4-1 to be consistent with the requirements of surveillance requirement (SR) 3.0.4 previously changed by TSTF-359, Revision 9. DAEC adopted TSTF-359 via Reference 7.1. Therefore, the correction identified in TSTF-485, Revision 0, which was approved by the U.S. Nuclear Regulatory Commission (NRC or Commission) via Reference 7.2, is applicable to DAEC.

Technical Specification Change Request-029, which in part requested adoption of TSTF-284, Revision 3, regarding the addition of discussion paragraphs and examples to facilitate the use and application of SR Notes that utilize "met" and "perform," was submitted for DAEC by Reference 7.3. Reference 7.4 issued Amendment 258 to the DAEC Operating License. The safety evaluation associated with Amendment 258 regarding TSTF-284, Revision 3, described the following changes which were to be implemented by that amendment:

- Add Examples 1.4-5 and 1.4-6, which explain the use of the following two SR notes, respectively: "Only required to be performed in MODE 1," and "Not required to be met in MODE 3." [Section 3.2.1.a of Reference 7.4 ]

However, due to administrative error, during issuance of amendment 258, the revised TS pages reflecting these changes were not transmitted. The TS pages 1.4-7 and 1.4-8 were later transmitted by a correction letter dated June 24, 2005 (Reference 7.5).

The TS pages issued by correction letter to Amendment 258 incorporated the following changes:

- New Example 1.4-5 with a Note that stated, "Only required to be met in MODE 1."
- New Example 1.4-6 with a Note that stated, "Not required to be in MODE 3."

However, these pages still did not incorporate the changes to be consistent with TSTF-284, Revision 3, as requested by Nuclear Management Company, LLC, letter dated January 28, 2004 (Reference 7.3), and need to be revised to be consistent with TSTF-284, Revision 3.

## 2.2 Proposed TS Changes

### 2.2.1 Proposed Changes to Example 1.4-1

The licensee's TS, Section 1.4, "Frequency," Example 1.4-1 currently reads as follows:

If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO [limiting condition for operation] for which performance of the SR is required, the Surveillance must be performed within the Frequency requirements of SR 3.0.2 prior to entry into the MODE or other specified condition. Failure to do so would result in a violation of SR 3.0.4.

The licensee proposes to modify Example 1.4-1 to read as follow:

If the interval as specified by SR 3.0.2 is exceeded while the unit is not in a MODE or other specified condition in the Applicability of the LCO for which performance of the SR is required, then SR 3.0.4 becomes applicable. The Surveillance must be performed within the Frequency requirements of SR 3.0.2, as modified by SR 3.0.3, prior to entry into the MODE or other specified condition or the LCO is considered not met (in accordance with SR 3.0.1) and LCO 3.0.4 becomes applicable.

### 2.2.2 Proposed Changes to Example 1.4-5

The Note located in the licensee's TS, Section 1.4, "Frequency," Example 1.4-5 currently reads as follows:

Only required to be met in MODE 1.

The licensee proposes to modify the Note in Example 1.4-5 to read as follow:

Only required to be performed in MODE 1.

### 2.2.3 Proposed Changes to Example 1.4-6

The Note located in the licensee's TS, Section 1.4, "Frequency," Example 1.4-6 currently reads as follows:

Not required to be in MODE 3.

The licensee proposes to modify the Note in Example 1.4-6 to read as follow:

Not required to be met in MODE 3.

These changes are made in order to be consistent with TSTF-284, revision 3.

## 2.3 Regulatory Requirements and Guidance

As described in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Section 50.90, whenever a holder of an operating license desires to amend the license, application for an amendment must be filed with the Commission fully describing the changes desired, and following as far as applicable, the form prescribed for original applications. For TS, 10 CFR, Section 50.36(a)(1), states that each applicant for an operating license shall include in the application proposed TS in accordance with the requirements of 10 CFR, Section 50.36. Also, 10 CFR, Section 50.36(a)(1), states that a summary statement of the bases or reasons for such specifications, other than those covering administrative controls, shall also be included in the application, but shall not become part of the TS.

Pursuant to 10 CFR, Section 50.92(a), in determining whether an amendment to a license will be issued to the applicant, the Commission will be guided by the considerations which govern the issuance of initial licenses to the extent applicable and appropriate. The issuance of operating licenses is addressed by 10 CFR, Section 50.57(a), and requires the Commission to find, among other things, "[t]here is reasonable assurance (i) that the activities authorized by the operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the regulations in this chapter." It also requires a finding that "[t]he issuance of the license will not be inimical to the common defense and security or to the health and safety of the public."

Per 10 CFR, Section 50.36(b), each license authorizing operation of a utilization facility will include technical specifications. The TS will be derived from the analyses and evaluation included in the safety analysis report, and amendments, thereto, submitted pursuant to 10 CFR, Section 50.34 (describing the technical information to be included in applications for an operating license). The Commission may include such additional TSs as the Commission finds appropriate.

### 3.0 TECHNICAL EVALUATION

In the application dated July 24, 2016, Section 3.0, the licensee stated:

“The additional discussion and examples provided by TSTF 284, described previously in 3.3.1.a [the correct Section is 3.2.1.a], are acceptable because they extend the guidance, which explains the proper meaning and use of SR notes that modify surveillance applicability and frequency requirements, so that it is comprehensive, and consistent among the 5 STS NUREGs. Application of TSTF 284 to the DAEC TSs clarifies the existing guidance, but has no adverse effect on safety because it does not reduce any operational restrictions or testing requirements. Therefore, adoption of TSTF 284, Rev[ision] 3 is acceptable. [Section 3.2.2]”

The licensee’s proposed change to Example 1.4-1 is consistent with the approved Technical Specification Task Force-485, “Correct Example 1.4-1,” Revision 0. This change is acceptable as it corrects editorial errors and is consistent with NUREG 1433, Volume 1, “Standard Technical Specifications General Electric BWR/4 Plants, Revision 4.”

The licensee’s proposed changes to Example 1.4-5 replace the word “met” with “performed.” This change is acceptable as it is consistent with the changes to TS approved in Amendment 258 and is consistent with NUREG 1433, Volume 1, “Standard Technical Specifications General Electric BWR/4 Plants, Revision 4.”

The licensee’s proposed changes to Example 1.4-6 add the missing word “met” between “be” and “in.” This change is acceptable as it is consistent with the changes to TS approved in Amendment 258 and is necessary to ensure the proper meaning and usage of the Note.

The NRC staff concludes that the proposed changes are editorial in nature or correct errors in the licensee’s TS. As the proposed changes meet the requirements of 10 CFR, Section 50.36, the changes are acceptable.

### 4.0 STATE CONSULTATION

In accordance with the Commission’s regulations, the Iowa State official was notified of the proposed issuance of the amendment. The State official had no comments.

### 5.0 ENVIRONMENTAL CONSIDERATIONS

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 (80 FR 69713; November 10, 2015). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR, Section 51.22(c)(9). Pursuant to 10 CFR, Section 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.

## 7.0 REFERENCES

- 7.1 Letter, D. Beaulieu (USNRC) to M. Peifer (Nuclear Management Company, LLC), Duane Arnold Energy Center - Issuance of Amendment to Re: Increased Flexibility in MODE Restraints (TAC NO. MC1711), January 10, 2005 (ADAMS Accession No. ML043450083).
- 7.2 Letter, T. Boyce (USNRC) to Technical Specifications Task Force, Status of TSTF 343, 479, 482, 485, December 6, 2005 (ADAMS Accession No. ML053460302).
- 7.3 Letter, M. Peifer (Nuclear Management Company, LLC) to USNRC, "Technical Specification Change Request (TSCR-029): 'Adoption of NRC Approved Generic Changes to Improved Technical Specifications' Affected Technical Specifications: Sections 1.4, 3.3.1.1, 5.5.2, 5.5.11," NG-04-0037, dated January 28, 2004 (ADAMS Accession No. ML040410564).
- 7.4 Letter, D. Spaulding (USNRC) to M. Peifer (Nuclear Management Company, LLC), Duane Arnold Energy Center - Issuance of Amendment to Revise the Technical Specifications by Adopting TSTF Nos. 273, 284, and 299 (TAC NO. MC2023), May 12, 2005 (ADAMS Accession No. ML051110692).
- 7.5 Letter, D. Spaulding (USNRC) to M. Peifer (Nuclear Management Company, LLC), Duane Arnold Energy Center – Correction to Amendment No. 258 dated May 12, 2005 (TAC No. MC2023)(ADAMS Package Accession No. ML051730006).

Principal Contributor: Caroline Tilton, NRR

Date of issuance: July 13, 2016.

July 13, 2016

Mr. Thomas A. Vehec  
Vice President  
NextEra Energy  
Duane Arnold Energy Center  
3277 DAEC Road  
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER - ISSUANCE OF AMENDMENT TO CORRECT EXAMPLES IN TECHNICAL SPECIFICATIONS SECTION 1.4, "FREQUENCY" (CAC NO. MF6540)

Dear Mr. Vehec:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 293 to Renewed Facility Operating License No. DPR-49 for the Duane Arnold Energy Center. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated July 24, 2015.

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A copy of the Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,  
*/RA/*

Mahesh L. Chawla, Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-331

Enclosures:

1. Amendment No. 293 to License No. DPR-49
2. Safety Evaluation

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