

CHAPTER 17
QUALITY ASSURANCE

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
17.1	QUALITY ASSURANCE DURING THE DESIGN AND CONSTRUCTION PHASES	17.1-1
17.2	QUALITY ASSURANCE DURING THE OPERATIONS PHASE.....	17.2-1
17.3	QUALITY ASSURANCE DURING DESIGN, PROCUREMENT, FABRICATION, INSPECTION, AND/OR TESTING OF NUCLEAR POWER PLANT ITEMS	17.3-1
17.4	DESIGN RELIABILITY ASSURANCE PROGRAM	17.4-1
17.5	QUALITY ASSURANCE PROGRAM DESCRIPTION – NEW LICENSE APPLICANTS	17.5-1
17.6	MAINTENANCE RULE PROGRAM	17.6-1
17.7	COMBINED LICENSE INFORMATION ITEMS.....	17.7-1
17.8	REFERENCES	17.8-1

CHAPTER 17**QUALITY ASSURANCE****17.1 QUALITY ASSURANCE DURING THE DESIGN AND CONSTRUCTION PHASES**

This **section** of the referenced DCD is incorporated by reference with the following departures and/or supplements.

Replace the information in DCD Section 17.1 with the following information.

WLS COL 17.5-1 Duke Energy Carolinas (Duke) is responsible for the establishment and execution of quality assurance program requirements during the design, construction, and operations phases of Lee Nuclear Station Units 1 and 2. Duke may delegate, and has delegated to others, as discussed below, the work of establishing and executing the quality assurance program, or any parts thereof, but retains responsibility for the quality assurance program.

The Duke Energy Quality Assurance (QA) Program defines the QA program requirements for design and construction activities. These program requirements remain in effect until such time as the Quality Assurance Program Description (QAPD) discussed in **Section 17.5** becomes effective.

Duke Energy contracted with Enercon Services, Inc. to develop the Lee Nuclear Station Combined License (COL) application, including site characterization activities. The process of collection, review and analysis of specific data for site characterization was performed under the Enercon Quality Assurance program and is described in the Enercon Quality Assurance Project Planning Document (**Reference 201**). Duke Energy maintains oversight under its existing 10 CFR Part 50, Appendix B program, as described in "Duke Energy Carolinas Topical Report Quality Assurance program" (**Reference 202**). Duke Energy oversight is provided through its review and approval of the Enercon QA Plan, by conducting QA audits and surveillances of Enercon activities, and by direct participation in COL development activities. This includes providing site specific applicant input and review of COL application content, signing the COL application as applicant at submittal, and working directly with Enercon and contractors to respond to NRC requests for additional information.

Implementation of the applicable portions of the "Quality Assurance Program Description" QAPD discussed in **Section 17.5** begins at COL issuance. The program establishes the QA program requirements for the remaining portion of the design and construction phases and for operations; however, full implementation of the operations related requirements will be no later than as indicated in **Table 13.4-201**.

17.2 QUALITY ASSURANCE DURING THE OPERATIONS PHASE

This **section** of the referenced DCD is incorporated by reference with no departures or supplements.

17.3 QUALITY ASSURANCE DURING DESIGN, PROCUREMENT,
FABRICATION, INSPECTION, AND/OR TESTING OF NUCLEAR
POWER PLANT ITEMS

This **section** of the referenced DCD is incorporated by reference with no departures or supplements.

17.4 DESIGN RELIABILITY ASSURANCE PROGRAM

This **section** of the referenced DCD is incorporated by reference with the following departures and/or supplements.

- STD SUP 17.4-1 The quality assurance requirements for non-safety related SSCs within the scope of D-RAP is in accordance with the Quality Assurance Program Description (QAPD), Part III.

STD DEP 1.1-1 17.5 QUALITY ASSURANCE PROGRAM DESCRIPTION – NEW LICENSE APPLICANTS

WLS COL 17.5-1 The Quality Assurance Program in place during the design, construction, and
STD COL 17.5-2 operations phases is described in the “Nuclear Plant Development Quality
Assurance Program Description (QAPD)”, which is maintained as a separate
STD COL 17.5-4 document. The QAPD is included in the Lee COL application as Part 11 and is
incorporated by reference (see [Table 1.6-201](#)). This QAPD is based on
STD COL 17.5-8 NEI 06-14A, “Quality Assurance Program Description” ([Reference 203](#)).

Conformance statements for QA-related Regulatory Guides (including Regulatory Guides 1.28, 1.30, 1.33, 1.38, 1.39, 1.94, and 1.116) are provided in [Appendix 1AA](#). While many Regulatory Guide positions can be identified as applicable to the scope of work identified and addressed by the DCD and others can be identified as applicable to the scope of work identified and addressed by the COLA, some QA guidance related positions could be accomplished by either scope of work and thus be addressed in either the DCD or the COLA. These positions are primarily dependent on who performs the work. The DCD conformance statement indicates an exception to apply NQA-1. The COLA identifies an exception to apply NQA-1. Per [DCD Section 17.3](#), WEC work performed up to March 15, 2007 applied a 1991 version of the standard. A 1994 version of the standard is applied for work performed after that date by WEC. If the work is performed under the applicant’s COL program, the 1994 version of NQA-1 identified in the COLA QAPD is applied. Thus, DCD scope (identified in [DCD Appendix 1A](#)) and “remaining scope” differentiate the application of the guidance identified in these Regulatory Guides.

WLS COL 17.5-1 The QAPD is the Duke Energy Nuclear Plant Development Quality Assurance Program Description.

STD COL 17.5-4 [Table 13.4-201](#) provides milestones for operational quality assurance program implementation.

WLS COL 17.5-1 The Quality Assurance Program in place prior to implementation of the QAPD is described in [Section 17.1](#).

STD DEP 1.1-1 17.6 MAINTENANCE RULE PROGRAM

STD SUP 17.6-1 This section incorporates by reference NEI 07-02A, "Generic FSAR Template
STD COL 3.8-5 Guidance for Maintenance Rule Program Description for Plants Licensed Under
10 CFR Part 52," (Reference 204) with the following supplemental information.
See Table 1.6-201.

Table 13.4-201 provides milestones for maintenance rule program implementation.

The text of the template provided in NEI 07-02A is generically numbered as "17.X." When the template is incorporated by reference into this FSAR, section numbering is changed from "17.X" to "17.6."

STD SUP 17.6-1 Descriptions of the programs listed in Subsection 17.6.3 of NEI 07-02A are provided in the following FSAR chapters/sections:

The maintenance rule program (Section 17.6)

The quality assurance program (Section 17.5)

Inservice inspection program (Sections 5.2 and 6.6)

Inservice testing program (Section 3.9)

The technical specifications surveillance test program (Chapter 16)

STD SUP 17.6-2 Condition monitoring of underground or inaccessible cables is incorporated into the maintenance rule program. The cable condition monitoring program incorporates lessons learned from industry operating experience, addresses regulatory guidance, and utilizes information from detailed design and procurement documents to determine the appropriate inspections, tests and monitoring criteria for underground and inaccessible cables within the scope of the maintenance rule (i.e., 10 CFR 50.65). The program takes into consideration Generic Letter 2007-01.

STD DEP 1.1-1 17.7 COMBINED LICENSE INFORMATION ITEMS

Section 17.5 of the referenced DCD is incorporated by reference with the following departures and/or supplements.

WLS COL 17.5-1 This COL Item is addressed in Sections 17.1 and 17.5.

STD COL 17.5-2 This COL Item is addressed in Section 17.5.

STD COL 17.5-4 This COL Item is addressed in Section 17.5.

STD COL 17.5-8 This COL Item is addressed in Section 17.5.

STD DEP 1.1-1 17.8 REFERENCES

Section 17.6 of the referenced DCD is incorporated by reference with the following departures and/or supplements.

201. Enercon Services, Inc., "Enercon Quality Assurance Project Planning Document," PPD No. DUK010, Revision 12, May 2011.
 202. Duke Energy Carolinas, "Duke Energy Carolinas Topical Report - Quality Assurance Program," DUKE-1-A.
 203. Nuclear Energy Institute, Technical Report NEI 06-14A, "Quality Assurance Program Description," Revision 7, July 2009.
 204. Nuclear Energy Institute, "Generic FSAR Template Guidance for Maintenance Rule Program Description for Plants Licensed Under 10 CFR Part 52," NEI 07-02A, Revision 0.
-