



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
AMENDMENT 23 OF THE QUALITY ASSURANCE (QA) PROGRAM TOPICAL REPORT

DUKE ENERGY CORPORATION

MCGUIRE NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-369 AND 50-370

1.0 INTRODUCTION

By letter dated May 27, 1997, Duke Energy Corporation (DEC/the licensee) submitted proposed license amendments (Reference 1) to convert the current Technical Specifications (TS) for the McGuire Nuclear Station, Units 1 and 2, to be consistent with the Improved Standard TS (ISTS) for Westinghouse nuclear plants (NUREG-1431) (Reference 2). Consistent with the Commission's Final Policy Statement on Technical Specifications Improvements for Power Reactors (Reference 3), many current TS (CTS) requirements have been transferred from control by TS to control by other mechanisms (e.g., the licensee's NRC-approved quality assurance (QA) program). In support of the proposed amendments, the licensee has submitted Amendment 23 to the DEC Topical Report, "Duke-1-A, Quality Assurance Program" (References 4 and 5), which incorporates the relocated current TS requirements. This safety evaluation reviews the appropriateness and completeness of the current TS requirements that have been relocated to the licensee's QA program.

2.0 BACKGROUND

Section 182a of the Atomic Energy Act of 1954, as amended, requires applicants for nuclear power plant operating licenses to include TS as part of the license. The Commission's regulatory requirements related to the content of TS are set forth in Title 10 of the Code of Federal Regulations (10 CFR) Section 50.36. That regulation requires that the TS include items in five specific categories: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCO); (3) surveillance requirements; (4) design features; and (5) administrative controls. The regulation, however, does not specify particular items to be included in the plant TS.

Section 50.36(c)(2) provides, with respect to LCOs, four criteria to be used in determining whether particular items are required to be included in the TS. While the four criteria apply specifically to LCOs, in adopting the revision to the rule (Section 50.36, Reference 6), the Commission indicated that the intent of these criteria can be used to identify the optimum set of TS administrative controls.

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Addressing administrative controls, 10 CFR 50.36(c)(5) states that they "are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure safe operation of the facility in a safe manner." The particular administrative controls to be included in the TS, therefore, are the provisions that the Commission deems essential for the safe operation of the facility that are not already covered by other regulations.

Accordingly, the staff has determined that administrative control requirements that are not specifically required under Section 50.36(c)(5), and that are not otherwise necessary to obviate the possibility of an abnormal situation or an event giving rise to an immediate threat to the public health and safety, may be relocated to more appropriate documents (e.g., Security Plan, Quality Assurance Program (QAP), Emergency Plan), which are subject to regulatory controls. Similarly, while the required content of TS administrative controls is specified in 10 CFR 50.36(c)(5), particular details may be relocated to licensee-controlled documents where Sections 50.54, 50.59, or other regulations provide adequate regulatory control.

NRC Administrative Letter (AL) 95-06 (Reference 7) provides guidance to licensees proposing amendments that relocate administrative controls to NRC-approved QAP descriptions, where subsequent changes are controlled by the established QAP change control process in 10 CFR 50.54(a). AL 95-06 provides specific guidance in the areas of: (1) independent safety engineering group; (2) reviews and audits; (3) procedure review process; and (4) records and record retention. While AL 95-06 guidance is limited to these areas, the QAP may provide a reasonable choice for relocating other TS administrative control requirements that do not satisfy the intent of the criteria for TS inclusion, as discussed previously. The appropriateness of relocating other administrative controls from the TS to the QAP is evaluated on a case-by-case basis.

### 3.0 EVALUATION

The licensee proposes to relocate certain administrative control requirements from the TS to its NRC-approved QAP description (Reference 8). The proposed relocated requirements are contained in Amendment 23 to the licensee's QA topical report (References 4 and 5), submitted as a nonreduction in commitment, pursuant to Section 50.71(e), in support of the proposed improved TS amendments. Information concerning the items to be relocated from the current TS to the QA topical report is contained in Attachment 2 of Reference 4; marked pages from the STS conversion packages, previously submitted (Reference 1), are included as Attachment 3. The scope of the staff's evaluation is limited to the review of the appropriateness and completeness of the relocated requirements and does not address the adequacy of the QA topical report.

### 3.1 Safety Review Group

#### 3.1.1 Relocation (Item 31):<sup>1</sup> TS 6.2.3.1 through TS 6.2.3.4 to QAP Section 17.3.3.2.4 (Safety Assessment)

Relocated Requirements: The Safety Review Group (SRG) satisfies the independent safety engineering (ISE) provisions of NUREG-0737 (Reference 9).

Evaluation: SRG function, responsibilities, and authority, as specified in the CTS (Reference 1), have been relocated to the QAP. TS 6.2.3.2 requires at least three SRG members to have bachelor degrees in engineering or related science. The relocated requirement allows an individual with additional experience and qualifications to serve in lieu of one of these individuals. The alternate composition requirement is identical with that approved for Catawba (Reference 11). As concluded by the staff's safety evaluation supporting the Catawba amendments, the alternate requirement can be considered equivalent for the purpose of constituting the required three-member majority. The relocation of TS 6.2.3.2, as revised, is acceptable.

Relocation of these ISE requirements to the QAP, where subsequent changes to these requirements would be controlled pursuant to 10 CFR 50.54(a), is in accordance with the guidance of AL 95-06.

#### 3.1.2 Relocation (Item 32): TS 6.2.3.5 to QAP Sections 17.3.3.2.4 (Safety Assessment), and 17.3.2.15 (Records)

Relocated Requirement: SRG Records.

Evaluation: The requirement that these records be maintained has been relocated to QAP Section 17.3.2.15 (the requirement that monthly summary reports of activities be provided to the Manager of Safety Assurance has been relocated to QAP Section 17.3.3.2.4). Relocation intact of these requirements to the QAP, where subsequent changes would be controlled pursuant to 10 CFR 50.54(a), is in accordance with the guidance of AL 95-06.

### 3.2 Technical Review and Control

#### 3.2.1 Relocation (Items 33, 34, 36, 37, 42, and 43): TS 6.5.1, TS 6.5.1.1, TS 6.5.1.3, TS 6.5.1.4, TS 6.5.1.9, and TS 6.5.1.10 to QAP Section 17.3.2.14 (Document Control)

Relocated Requirements:

- Approval of station procedures (TS 6.5.1),
- Preparation and review of station procedures (TS 6.5.1.1)

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<sup>1</sup> Item numbers correspond to those used in Attachment 2 of the licensee's submittal (Reference 4).

- Individuals responsible for procedure review (TS 6.5.1.3)
- Preparation and review of proposed TS changes (TS 6.5.1.4)
- Review of changes to the Process Control Program, Offsite Dose Calculation Manual, and Radwaste System (TS 6.5.1.9)
- Review of the Fire Protection Program and implementing procedures (TS 6.5.1.10)

3.2.2 Relocation (Item 35): TS 6.5.1.2 to QAP Section 17.3.2.2 (Design Control)

Relocated Requirement: Review of proposed modifications.

3.2.3 Relocation (Item 38): TS 6.5.1.5 to QAP Section 17.3.2.10 (Inspection, Test, and Operating Status)

Relocated Requirement: Review of proposed tests and experiments.

3.2.4 Relocation (Items 39, 40, and 41): TS 6.5.1.6, TS 6.5.1.7, and TS 6.5.1.8 to QAP Section 17.3.2.13 (Corrective Action)

Relocated Requirements:

- Investigation of violations of TS, safety limit violations, and all other reportable events (TS 6.5.1.6)
- Performance of special reviews and investigations (TS 6.5.1.7)
- Review and reporting of unplanned onsite release of radioactive material (TS 6.5.1.8)

3.2.5 Relocation (Item 44): TS 6.5.1.11 to QAP Section 17.3.2.15 (Records)

Relocated Requirement: Station records documenting activities performed under TS 6.5.1 through TS 6.5.10 shall be maintained.

Evaluation: Relocation of the requirements for procedure review (Items 33, 34, 36, 37, 42 and 43), review (Items 35 and 38) and records (Item 44) to the QAP, where subsequent changes would be controlled pursuant to 10 CFR 50.54(a), is in accordance with the guidance of AL 95-06.

Concerning the requirements for the performance and reporting of investigations (Items 39, 40, and 41), these administrative control requirements do not satisfy the intent of the criteria for TS inclusion (see Section 2) and are, therefore, candidates for relocation. Relocation of these requirements to the QAP description of the licensee's corrective action program is appropriate. Subsequent changes to these requirements would be controlled through the established QAP change control process in 10 CFR 50.54(a).

### 3.3 Nuclear Safety Review Board (NSRB)

#### 3.3.1 Relocation (Items 45, 47, and 48): TS 6.5.2.1 through TS 6.5.2.8, and TS 6.5.2.10 to QAP Section 17.3.3.2.1 (NSRB)

Relocated Requirements: The NSRB satisfies the independent review provisions described in N18.7-1976/ANS-3.2 (Reference 10).

#### 3.3.2 Relocation (Items 46 and 50): TS 6.5.2.9 and TS 6.5.2.11c to QAP Section 17.3.3.2.3 (Internal Audits)

Relocated Requirements: Audits performed under the cognizance of the NSRB.

Evaluation: Relocation of these audit requirements to the QAP, where subsequent changes would be controlled pursuant to 10 CFR 50.54(a), is in accordance with the guidance of AL 95-06.

### 3.4 Reportable Events

#### Relocation (Item 51): TS 6.6.1 to QAP Section 17.3.2.13 (Corrective Action)

Relocated Requirement: Review of reportable events.

Evaluation: Relocation intact of this review requirement to the QAP, where subsequent changes would be controlled pursuant to 10 CFR 50.54(a), is in accordance with the guidance of AL 95-06.

### 3.5 Safety Limit Violation

#### Relocation (Item 52): TS 6.7.1 to QAP Section 17.3.2.13 (Corrective Action)

Relocated Requirements: Safety limit violations are addressed by STS, Chapter 2.2 (Reference 2). Subsequent deletion of the STS requirements for notification, reporting, and reactor restart have been approved by the NRC (Reference 12) on the basis that they are adequately addressed by existing regulations (10 CFR 50.36, 50.72, and 50.73). Particular CTS details related to the licensee's internal notification and review process have been relocated to the QAP.

Evaluation: These administrative requirements do not satisfy the intent of the criteria for TS inclusion and are, therefore, candidates for relocation. Relocation of these requirements to the QAP description of the licensee's corrective action program is appropriate. Subsequent changes to these requirements would be controlled through the established QAP change control process in 10 CFR 50.54(a).

### 3.6 Station Operating Procedures

Relocation (Items 52, 53, 54, 55, and 56): TS 6.8.1e, h, j, TS 6.8.2, and TS 6.8.3 to QAP Section 17.3.2.14 (Document Control)

Relocated Requirements:

- Program implementation procedures for: (1) Process Control Program; (2) Technical Review and Control Program; (3) Plant Operations Review Committee (TS 6.8.1e, h, j),
- Review and approval of procedures (TS 6.8.2)
- Temporary changes to procedures (TS 6.8.3)

Evaluation: Relocation of these procedure review requirements to the QAP, where subsequent changes to these provisions would be controlled pursuant to 10 CFR 50.54(a), is in accordance with the guidance of AL 95-06.

### 3.7 Station Operating Records

Relocation (Items 58, 59, and 60): TS 6.10 to QAP Section 17.3.2.15 (Records)

Relocated Requirements: Station records.

Evaluation: The QAP list of station records has been updated as necessary to include the records previously listed in the CTS. Retention times for quality assurance records are in accordance with corporate retention policies, which reflect industry codes and standards and regulatory requirements. The licensee's program for collection, storage, and maintenance of QA records conforms to Regulatory Guide 1.88 (Reference 13), with the NRC-approved alternative to the ANSI Standard N45.2.9 fire protection provisions, as described in Table 17-1 of the QAP. Subsequent changes to these requirements would be controlled through the established QAP change control process in 10 CFR 50.54(a).

## 4.0 CONCLUSIONS

The staff finds the proposed relocation of the TS administrative control requirements to the licensee's QAP to be acceptable. Subsequent changes to these requirements will be controlled through the established QAP change control process in 10 CFR 50.54(a).

## 5.0 REFERENCES

1. Duke letter (M. S. Tuckman) to the USNRC, "Catawba Nuclear Station, Conversion to the Improved Technical Specifications," May 27, 1997.
2. NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," Revision 1, April 1995.

3. Final Policy Statement on Technical Specifications Improvements for Nuclear Power Reactors, July 22, 1993 (58 FR 39132).
4. Duke letter (M. S. Tuckman) to the USNRC, "Duke Energy Corporation Nuclear Quality Assurance Plan, Amendment 23," April 8, 1998.
5. Duke letter (M. S. Tuckman) to the USNRC, "Duke Energy Corporation Nuclear Quality Assurance Plan, Supplement to Amendment 23," May 25, 1998.
6. Technical Specifications, July 19, 1995 (60 FR 36957).
7. Administrative Letter 95-06, "Relocation of Technical Specifications Administrative Controls Related to Quality Assurance," December 12, 1995.
8. "Duke Energy Corporation Nuclear Quality Assurance Program, Amendment 21," submitted by Duke letter dated June 6, 1997, subsequently revised by letter dated August 13, 1997.
9. NUREG-0737, Supplement 3, I.B.1.2, "Clarification of TMI Action Plan Requirements," "Independent Safety Engineering Group," October 1980.
10. ANSI N18.7-1976, Section 4.3, "Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants," "Independent Review Program," February 19, 1976.
11. NRC letter (P. S. Tam) to Duke (G. R. Peterson), "Issuance of Amendments - Catawba Nuclear Station, Units 1 and 2," April 27, 1998.
12. NUREG-1431, Rev 2, Technical Specification Task Force Proposed Change to the Standard Specifications TSTF-05, approved by the NRC on September 5, 1995.
13. Regulatory Guide 1.88, "Collection, Storage, and Maintenance of Nuclear Power Plant Quality Assurance Records," Revision 2, October 1976.

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