

## WRPS QUALITY ASSURANCE REQUIREMENTS

Requisition No. MR-15-05732

Quality Assurance Engineer\*:

Cris Lungu

Date

11/2/15

Design Authority/Engineer\*:

Russell Flye

Date

11/02/2015

\*QAE/DA/Engineer name if attached in Electronic Procurement System, otherwise, signature and date.

### Evaluation Criteria

The ANSI/ASME NQA-1 requirements checked below apply to this procurement. Clarifications are provided when the extent of coverage varies or when exceptions are taken. If no clarification is provided, the requirement applies as written.

#### Section A

ASME Version	NQA-1	NQA-1a	NQA-1b
Edition/Year	<input checked="" type="checkbox"/> 2008 <input type="checkbox"/> 2004	<input checked="" type="checkbox"/> 2009 <input type="checkbox"/> 2005	<input type="checkbox"/> 2007

#### NQA-1 Part I

(All) OR (Specify)

1. Organization

- 100 Basic
- 200 Structure and Responsibility
- 300 Interface Control

2. Quality Assurance Program

- 100 Basic
- 200 Indoctrination and Training
- 300 Qualification Requirements
- 400 Records of Qualification (2008)
- 400 Certification and Qualification (2004)
- 500 Records

3. Design Control

- 100 Basic
- 200 Design Input
- 300 Design Process
- 400 Design Analyses
- 500 Design Verification
- 600 Change Control
- 700 Interface Control
- 800 Software Design Control
- 900 Documentation and Records

4. Procurement Document Control

- 100 Basic
- 200 Content of the Procurement Documents
- 300 Procurement Document Review
- 400 Procurement Document Changes

5. Instruction Procedures and Drawings

- 100 Basic

6. Document Control

- 100 Basic
- 200 Document Control
- 300 Document Changes

7. Control of Purchased Items and Services

- 100 Basic
- 200 Supplier Evaluation Selection
- 300 Bid Evaluation
- 400 Control of Supplier Generated Documents
- 500 Acceptance of Item or Service
- 600 Control of Supplier Nonconformances
- 700 Commercial Grade Items and Services
- 800 Records

8. Identification and Control of Items

- 100 Basic
- 200 Identification Methods
- 300 Specific Requirements

9. Control of Special Processes

- 100 Basic
- 200 Process Control
- 300 Responsibility
- 400 Records

10. Inspection

- 100 Basic
- 200 Inspection Requirements
- 300 Inspection Hold Points
- 400 Inspection Planning
- 500 In-Process Inspection
- 600 Final Inspections
- 700 Records (2004)
- 700 Inspections During Operations (2008)
- 800 Records (2008)

11. Test Control

- 100 Basic
- 200 Test Requirements
- 300 Test Procedures (other than computer programs)
- 400 Computer Program Test Procedures
- 500 Test Results
- 600 Test Records

12. Control of Measuring and Test Equipment

- 100 Basic
- 200 Selection
- 300 Calibration and Control
- 400 Records

13. Handling, Storage and Shipping

- 100 Basic
- 200 Special Requirements
- 300 Procedures
- 400 Tools and Equipment
- 500 Operators
- 600 Marking or Labeling

14. Inspection, Test and Operating Status

- 100 Basic

## WRPS QUALITY ASSURANCE REQUIREMENTS

Requisition No. MR-15-05732

Quality Assurance Engineer\*:

Cris Lungu

*Cris Lungu*

Date

*11/2/15*

Design Authority/Engineer\*:

Russell Flye

*Russell E. Flye*

Date

11/02/2015

**15. Control of Non-Conforming Items**

- 100 Basic
- 200 Identification
- 300 Segregation
- 400 Disposition

**16. Corrective Action**

- 100 Basic

**17. Quality Assurance Records**

- 100 Basic
- 200 Generation of Records
- 300 Authentication of Records
- 400 Classification
- 500 Receipt Control of Records

**17. Quality Assurance Records (continued)**

- 600 Storage
- 700 Retention
- 800 Receipt Control of Records

**18. Audits**

- 100 Basic
- 200 Scheduling
- 300 Preparation
- 400 Performance
- 500 Reporting
- 600 Response
- 700 Follow-Up Action
- 800 Records

**NQA-1 Part II (Subparts)**

**Quality Assurance Requirements for:**

(All) OR (Specify)

**Introduction**

- 100 Purpose
- 200 Applicability
- 300 Responsibility
- 400 Planning and Procedures
- 500 Definitions
- 600 Multiunit Facility Provisions

**2.1 Cleaning of Fluid Systems and Associated Components for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Cleanness Criteria
- 400 Manufacturing Phase Cleanness
- 500 Cleanness Prior to Inspection
- 600 Cleanness During Installation
- 700 Maintenance of Installation Cleanness
- 800 Preoperational Cleaning
- 900 Layup and Postlayup Cleaning
- 1000 Postoperational Repairs and Modifications
- 1100 Records

**2.2 Packaging, Shipping, Receiving, Storage, and Handling of Items for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Packaging
- 400 Shipping
- 500 Receiving
- 600 Storage
- 700 Handling
- 800 Records

**2.3 Housekeeping for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Requirements
- 400 Records

**2.5 Installation, Inspection, and Testing of Structural Concrete, Structural Steel, Soils, and Foundations for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Requirements
- 400 Preconstruction Verification
- 500 Inspection of Soils and Earthwork
- 600 Inspection of Foundation Pile and Caisson Construction
- 700 Inspection of Concrete Construction
- 800 Inspection of Steel Construction
- 900 Data Analysis and Evaluation
- 1000 Records

**2.7 Computer Software for Nuclear Facility Applications**

- 100 General
- 200 General Requirements
- 300 Software Acquisition
- 400 Software Engineering Method
- 500 Standards, Conventions, and Other Work Practices
- 600 Support Software
- 700 References

## WRPS QUALITY ASSURANCE REQUIREMENTS

Requisition No. MR-15-05732

Quality Assurance Engineer\*:

Cris Lungu

*Cris Lungu*

Date

11/2/15

Design Authority/Engineer\*:

Russell Flye

*Russell E. Flye*

Date

11/02/2015

**2.8 Installation, Inspection, and Testing of Mechanical Equipment and Systems for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Preinstallation Verification
- 400 Control During Installation Process
- 500 Installed Systems Inspection and Tests
- 600 Data Analysis and Evaluation
- 700 Records

**2.14 Commercial Grade Items and Services**

- 100 General
- 200 Definition Applications
- 300 Utilizations
- 400 Technical Evaluation
- 500 Critical Characteristics
- 600 Methods of Accepting Commercial Grade Items
- 700 Commercial Grade Services
- 800 Documentation

**2.15 Hoisting, Rigging, and Transporting of Items for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Types of Handling Equipment

- 400 Design Requirements
- 500 Acceptance Criteria for Manufactured Handling Equipment
- 600 Testing, Inspection, and Maintenance
- 700 Control of the Use of Handling Equipment
- 800 Qualifications of Personnel
- 900 Records

**2.18 Maintenance of Nuclear Facilities**

- 100 General
- 200 General Requirements
- 300 Preventative Maintenance
- 400 Corrective Maintenance
- 500 Records

**2.20 Subsurface Investigations for Nuclear Power Plants**

- 100 General
- 200 General Requirements
- 300 Verification Requirements
- 400 Field Investigation Requirements
- 500 Laboratory Testing
- 600 Evaluation and Analysis
- 700 Records

**Section C – Other National Standards**

	National Standard Title:	ID Doc. Designation	Edition/Year	Section
a.	_____	_____	_____	_____
b.	_____	_____	_____	_____
c.	_____	_____	_____	_____
d.	_____	_____	_____	_____
e.	_____	_____	_____	_____
f.	_____	_____	_____	_____
g.	_____	_____	_____	_____

**Section D. Other Requirements or Clarifications, indicate requirement edition or year/date (such as NQA-1, Part, III, or IV)**

Clarifications:

QR2 (300, except 303.3, Independent Assessment option, 303.6, 304 & 305) (500, except Auditors)

QR4 (200, except 207) (300, except changes due to bid evaluations/negotiations)

QR7 (100, except source inspection) (500, except 502 as it pertains to post-installation testing & 506) (800, except 800(c))

QR8 (300, except 302 and 303(c))

QR11 (200, except 200(a) as it pertains to computer program test control, 200(c), 200(d)) (600, except 602)

QR14 (100, only applicable to inspection & testing)

QR17 (400, except 401)

Part II, Subpart 2.14 (limited approval for CGI Dedication of Weld Filler Materials and Raw Materials, 300(c), 300(d), 500, 601 (b)(1), 601(b)(2), 601(b)(3), 800(b), 800(d), 800(e), 800(i). Requirements only applicable if sub-contractor intends to utilize commercial vendors for safety-significant material procurement instead of those listed on their evaluated suppliers list.