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Xcel Energy®

Monticello Nuclear Generating Plant
2807 W County Road 75
Monticello, MN 55362

November 27, 2012

L-MT-12-103
10 CFR 50.54(f)

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Monticello Nuclear Generating Plant
Docket No. 50-263
Renewed Facility Operating License No. DPR-22

MNGP Final Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Seismic Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident

References:

1. NRC Letter, "Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" dated March 12, 2012, ADAMS Accession No. ML12053A340.

2. NRC Letter, "Endorsement of Electric Power Research Institute (EPRI) Draft Report 1025286, 'Seismic Walkdown Guidance,'" dated May 31, 2012, ADAMS Accession No. ML12145A529.

3. NSPM Letter to NRC, "Monticello Nuclear Generating Plant's 120-Day Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Seismic Aspects of Recommendations 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated July 9, 2012.

On March 12, 2012, the Nuclear Regulatory Commission (NRC) Staff issued a request for information regarding Near-Term Task Force (NTTF) insights from the Fukushima Dai-ichi accident, to all NRC power reactor licensees and holders of construction permits in active or deferred status (Reference 1). Enclosure 3 of the March 12, 2012 letter contains specific Requested Actions, Requested Information, and Required Responses associated with Near-Term Task Force (NTTF) Recommendation 2.3,

A001
NRR

Seismic. This letter provides the required response to the Requested Information for NTTF Recommendation 2.3, Seismic, from the Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy, on behalf of the Monticello Nuclear Generating Plant (MNGP).

In a letter to the NRC dated July 9, 2012 (Reference 3), NSPM confirmed that it would use EPRI Report 1025286, "Seismic Walkdown Guidance For Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic," endorsed by the NRC in Reference 2, as the basis for seismic walkdowns at the MNGP. NSPM performed walkdowns in accordance with the NRC-endorsed guidance to verify current plant configuration with the current licensing basis; verify the adequacy of current strategies and maintenance plans; and identify degraded, nonconforming, or unanalyzed conditions.

The enclosure to this letter provides the Requested Information in response to NTTF Recommendation 2.3, Seismic, and includes the results of the seismic walkdowns for MNGP. The enclosure contains Sensitive Unclassified Non-Safeguards Information (SUNSI) of which the loss, issue, modification, or unauthorized access can reasonably be foreseen to harm the public interest, or the commercial or financial interests of NSPM. NSPM requests that this proprietary information be withheld under 10 CFR 2.390(d)(1). The affected pages have been marked as proprietary, and sensitive information redacted for public disclosure.

If there are any questions, or if additional information is needed, please contact Ms. Jennie Eckholt, Licensing Engineer, at 612-330-5788.

Summary of Commitments

This letter makes the following new commitments and makes no revisions to existing commitments.

Regulatory Commitments	Due Date
NSPM will complete the Seismic Walkdowns of the inaccessible components listed in Appendix D, "Plan for Future Seismic Walkdown of Inaccessible Equipment," of the enclosure.	Refueling Outage (RFO) R26
NSPM will provide an updated seismic walkdown report with the results of the walkdowns of the inaccessible components.	60 days following the end of RFO R26

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 27, 2012.

John C. Grubb
Plant Manager, Monticello Nuclear Generating Plant
Northern States Power Company - Minnesota

Enclosure

cc: Administrator, Region III, USNRC
Director, Office of Nuclear Reactor Regulation (NRR)
NRR Project Manager, MNGP, USNRC
Senior Resident Inspector, MNGP, USNRC

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ENCLOSURE

MONTICELLO NUCLEAR GENERATING PLANT

NTTF RECOMMENDATION 2.3 - SEISMIC

SEISMIC WALKDOWN REPORT

(830 Pages Follow)

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Executive Summary

Following the accident at the Fukushima Dai-ichi nuclear power plant resulting from the March 11, 2011, Great Tohoku Earthquake and subsequent tsunami, the NRC established the Near-Term Task Force (NTTF) in response to Commission direction. The NTTF Charter, dated March 30, 2011, tasked the NTTF with conducting a systematic and methodical review of NRC processes and regulations and determining if the agency should make additional improvements to its regulatory system. Ultimately, a comprehensive set of recommendations contained in a report to the Commission (dated July 12, 2011, SECY-11-0093 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML111861807)) was developed.

On August 19, 2011, following issuance of the NTTF report, the Commission directed the NRC staff in a staff requirements memorandum (SRM) for SECY-11-0093 (ADAMS Accession No. ML 112310021), in part, to determine which of the recommendations could and should be implemented without unnecessary delay. On September 9, 2011, the NRC staff provided a document to the Commission (ADAMS Accession No. ML 11245A158) which identified those actions from the NTTF report that should be taken without unnecessary delay.

On March 12, 2012, the NRC issued a 10 CFR 50.54(f) letter that requested information to assure that these recommendations are addressed by all U.S. nuclear power plants (Reference 6). Every U.S. nuclear power plant is required to perform seismic walkdowns to identify and address degraded, non-conforming or unanalyzed conditions and to verify the current plant configuration with the current seismic licensing basis. This report documents the seismic walkdowns performed at the Monticello Nuclear Generating Plant (MNGP) as required to address, in part, the 10 CFR 50.54(f) information request issued by the NRC.

The Nuclear Energy Institute (NEI) cooperated with the NRC to prepare guidance for conducting seismic walkdowns as requested in Enclosure 3 of Reference 6, titled, Recommendation 2.3: Seismic. The guidelines and procedures prepared by NEI and endorsed by the NRC were published through the Electric Power Research Institute (EPRI) as EPRI Technical Report 1025286, Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic, dated June 2012 (Reference 1). The Northern States Power Company, a Minnesota corporation (NSPM), d/b/a Xcel Energy, confirmed that the EPRI seismic walkdown guidance would be used as the basis for conducting the seismic walkdowns and developing the needed information at the MNGP in a letter dated July 9, 2012 (Reference 3).

The EPRI Seismic Walkdown Guidance was used for the engineering walkdowns and evaluations described in this report. In accordance with the EPRI Seismic Walkdown Guidance, the following topics are addressed in the subsequent sections of this report:

- Seismic Licensing Basis
- Personnel Qualifications
- Selection of Systems, Structures , and Components (SSC)
- Seismic Walkdowns and Area Walk-Bys
- Seismic Licensing Basis Evaluations
- IPEEE Vulnerabilities Resolution Report
- Peer Reviews

This report documents any discrepancies or potential seismic issues identified as a result of the seismic walkdowns completed at the MNGP. No adverse seismic conditions were identified at the MNGP. Corrective Action Program Action Requests (CAPs) were entered into the site's 10 CFR 50 Appendix B qualified corrective action program.

1 Introduction

1.1 Background

In response to Near-Term Task Force (NTTF) Recommendation 2.3, the Nuclear Regulatory Commission (NRC) issued a 10 CFR 50.54(f) letter on March 12, 2012 requesting that all licensees perform seismic walkdowns to identify and address plant-specific degraded, nonconforming, or unanalyzed conditions (through the corrective action program) and verify the adequacy of monitoring and maintenance for protective features, and inform the NRC staff of the results of the walkdowns and corrective actions taken or planned. The Nuclear Energy Institute (NEI), with the Electric Power Research Institute (EPRI), prepared industry guidance to assist licensees in responding to this NRC request. The industry guidance document, EPRI Technical Report 1025286, Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic, dated June 2012 (Reference 1), was endorsed by the NRC on May 31, 2012 (Reference 4). NSPM confirmed that the EPRI seismic walkdown guidance would be used as the basis for conducting the seismic walkdowns and developing the needed information at the MNGP in a letter dated July 9, 2012 (Reference 3).

1.2 Plant Overview

The Monticello Nuclear Generating Plant (MNGP) is located within the city limits of Monticello, Minnesota on the south bank of the Mississippi River. The plant and approximately 2150 acres of land at the plant site are owned by NSPM. NSPM is a wholly owned utility operating subsidiary of Xcel Energy Corporation (Xcel Energy). The current MNGP renewed operating license (Renewed Facility Operating License No. DPR-22) expires at midnight on September 8, 2030.

1.3 Approach

The EPRI Seismic Walkdown Guidance (Reference 1) was used for the MNGP engineering walkdowns and evaluations described in this report. In accordance with Reference 1, the following topics are addressed in the subsequent sections of this report:

- Seismic Licensing Basis (Section 2)
- Personnel Qualifications (Section 3)
- Selection of SSCs (Section 4)
- Seismic Walkdowns and Area Walk-Bys (Section 5)
- Licensing Basis Evaluations (Section 6)
- IPEEE Vulnerabilities Resolution Report (Section 7)
- Peer Review (Section 8)

2 Seismic Licensing Basis

2.1 Overview

This section of the report summarizes the seismic licensing basis for the Monticello Nuclear Generating Plant. The safe shutdown earthquake and a summary of the codes, standards, and methods used in the design of Seismic Category I structures, systems, and components (SSC) are presented. This section does not establish or change the seismic licensing basis of the facility and is intended to provide a fundamental understanding of the seismic licensing basis of the facility.

2.2 Safe Shutdown Earthquake (SSE)

The maximum horizontal ground acceleration at the foundation level is 0.12g for the safe shutdown earthquake (SSE). (Reference 2, Section 1.3.1.6) The vertical acceleration is 0.08g for the SSE. (Reference 2, Section 12.2.2.9)

2.3 Design of Seismic Category I SSCs

A full description of the SSE along with the codes, standards, and methods used in the design of the Seismic Category I SSCs for meeting the seismic licensing basis requirements is provided in the following MNGP Updated Safety Analysis Report (USAR) (Reference 2) sections:

- USAR Section 1.3.1.6, Seismology and Design Response Spectra
- USAR Section 2.5, Geology and Soil Investigation
- USAR Section 2.6, Seismology
- USAR Section 7.10, Seismic and Transient Performance Instrumentation Systems
- USAR Section 12.2, Plant Principal Structures and Foundations
- USAR Appendix A, Seismic Design Criteria
- USAR Appendix F, Containment Vessel Design Summary Design

These USAR sections should be referred to for a detailed understanding of the seismic licensing basis.

2.3.1 Summary of Seismic Design for Class I SSCs

The seismic design for critical structures and equipment for this plant is based on dynamic analysis of acceleration or velocity response spectrum curves which are based on a horizontal ground acceleration of 0.06 g (Reference 2, Section 1.3.1.6).

The natural periods of vibration are calculated for buildings and equipment which are vital to the safety of the plant. Damping factors are based upon the materials and methods of construction used. Earthquake design is based on ordinary allowable stress as set forth in the applicable codes and is very conservative because the usual one-third increase in allowable working stresses due to loadings from the operating basis earthquake is not used. As an additional requirement, the design is such that a safe shutdown can be made following a safe shutdown earthquake assuming a horizontal ground acceleration of 0.12 g (Reference 2, Section 1.3.1.6).

The 0.12 g design criteria are for critical items only; that is, for Class I items. (Reference 2, Section 1.3.1.6) For the design of Class I structures and equipment the maximum horizontal acceleration and the maximum vertical acceleration were considered simultaneously. Where applicable, the resulting seismic stresses for the two motions were combined linearly (Reference 2, Section 12.2.1.9). All Class I structures and equipment were analyzed to assure that a safe shutdown can be made during horizontal ground accelerations of 0.06 g (operating basis earthquake) and 0.12 g (design basis or maximum earthquake) (Reference 2, Section 12.2.1.4. Seismic loads were based upon the seismic investigation and data developed by John A. Blume & Associates, Engineers. The design earthquake established for this site is the North 69° West Component of the 1952 Taft earthquake, normalized to a maximum ground acceleration of 0.06 gravity (Reference 2, Section 12.2.1.9).

2.3.2 Methods of Analysis for Class 1 SSCs

A. Equipment

All rigid Class I equipment was analyzed using accelerations derived from the results of the analysis for the supporting structure at the appropriate elevation. Amplification factors were applied for the seismic analysis of non-rigidly mounted equipment. Typical amplification factors were 2.7 for the Reactor Pressure Vessel and 1.5 for the Recirculating Pump. The amplification factors were determined by using the results of the dynamic analysis; i.e., referring to Sheet No. 4, Earthquake Analysis, Reactor Pressure Vessel, in USAR Appendix A of Reference 2, the maximum acceleration of the top of the reactor vessel is 0.16 g, since ground acceleration is 0.06 g, the amplification factor is 2.7. The other amplification factors were calculated in a similar manner. (Reference 2, Section 12.2.1.9)

B. Piping

Class I piping seismic analyses were performed for both operating basis and design basis (maximum) earthquakes as follows:

- Mode superposition using a floor response spectra.

- A static analysis was made using conservative static seismic coefficients. These static coefficients were determined in the following manner:

  1. Horizontal static coefficients were determined by using the average of the peak values from the unsmoothed ground spectral curve of the normalized earthquake.

  2. This average acceleration was then multiplied by the ratio of the building response acceleration at the installed elevation of the piping to maximum ground acceleration.

- A vertical coefficient was taken at a constant value equal to two-thirds of the maximum base ground acceleration or 0.04 g.

For the response spectrum analysis of piping systems, the floor spectra near the points of pipe lateral restraint were considered. The spectrum usually selected to be used in the analysis was the one located nearest the point of lateral support of the majority of the mass of the pipe. For the recirculation lines, the spectrum used was the one occurring just above the elevation of the header, or about half way between the upper and lower elevation of the pipe. Most of the seismic restraints fall below this elevation, and the selection of the point was considered to be realistic for the seismic analysis.

When a static analysis was made, all piping systems above the 935 foot elevation used a horizontal static coefficient, 0.82g, and below this elevation a value of 0.53g was used. These values represent an amplification factor of 13 and 9, respectively (Reference 2, Section 12.2.1.10).

C. Devices

All types of Class I devices (relays, switches, amplifiers, power supplies, sensors, etc.) which make up the Class I systems were tested for proper performance under the simulated seismic accelerations of the Design Basis Earthquake. Each device tested is energized and, as applicable, has a simulated input signal applied; and has its output monitored during and after the test. (Reference 2, Section 7.10.1.4)

D. Racks and Panels

Class I racks and panels complete with all internal wiring and devices mounted were vibrated at low accelerations over the DBE frequency range and measurements made to determine the presence of resonances. If resonances were present which affect Class I devices, steps were taken to shift their frequencies out of the band of interest or dampen them to an acceptable level. Once this was accomplished, the panel can be considered a rigid body and analyzed statically. (Reference 2, Section 7.10.1.4)

Addition of new systems or re-evaluation of existing systems is done using current methods of analysis and component qualification. See Section 12.2.1.10 of Reference 2.

2.3.3 Summary of Codes and Standards

This section summarizes the codes, specifications, standards of practice, and other accepted industry guidelines, which are adopted to the extent applicable, in the design and construction of the Seismic Category I SSCs for meeting the plant-specific seismic

licensing basis requirements. All of the applicable codes, standards, and specifications for Seismic Category I SSCs are listed in Table 2-1 below. These codes, standards, and specifications are also described in MNGP USAR Section 12.2.

Table 2-1: List of Codes, Standards, and Specifications

Specification or Standard Designation	Title
American Concrete Institute (ACI)-318	Building Code Requirements for Reinforced Concrete
American Institute of Steel Construction (AISC)	Specification for the Design, Fabrication and Erection of Structural Steel for Buildings – Sixth Edition
American Welding Society (AWS) D1.0	Standard Code for Arc and Gas Welding in Building Construction
American Society of Mechanical Engineers (ASME)	Boiler & Pressure Vessel Code, Section III, VIII, IX, and XI
American Petroleum Institute, Specification No. 620	Recommended Rules for Design and Construction of Large, Welded, Low Pressure Storage Tanks
ACI 505-54	Specification for the Design and Construction of Reinforced Concrete Chimneys
USA Standard Code for Pressure Piping, USAS B31.1.0 - 1967	Power Piping
American National Standard Code, ANSI B31.1 - 1977	Power Piping
American Society of Civil Engineers (ASCE) Transactions, Paper 3269	Wind Forces on Structures

3 Personnel Qualifications

3.1 Overview

This section of the report identifies the personnel that participated in the NTTF Recommendation 2.3 Seismic Walkdown efforts. This section also describes the qualifications of these personnel. A description of the responsibilities and minimum qualifications of each Seismic Walkdown participant's role(s) is provided in Section 2, *Personnel Qualifications*, of Reference 1.

3.2 Walkdown Personnel

Table 3-1 below summarizes the names and corresponding roles of personnel who participated in the NTTF Recommendation 2.3 Seismic Walkdown effort.

Table 3-1: Personnel Roles

Name	Equipment Selection	Plant Operations	Seismic Walkdown Engineer (SWE)	Licensing Basis Reviewer	IPEEE Reviewer	Peer Reviewer
B. Lory	X		X			
W. Djordjevic			X			
D. Zercher				X**		X
S. Kaas			X			
S. Luckiesh			X			
J. Kindred		X				X*
R. Walstrom	X	X				
T. Parker	X	X				
D. Moore					X	

* Peer Review Team Leader.
**No licensing basis evaluations were performed.

3.3 PERSONNEL QUALIFICATIONS

Summarized below are the qualifications for the personnel who participated in the NTTF Recommendation 2.3 Seismic Walkdown efforts. The personnel qualifications include applicable seismic training, education, and professional experience.

Bruce M. Lory

- Activities Performed: Equipment Selection, SWE
- Seismic Training Completed: Instructor for the Fundamentals of Equipment Seismic Qualification Training and EPRI NTTF Recommendation 2.3 - Plant Seismic Walkdowns Training
- Education: Bachelors of Science in Mechanical Engineering from the State University of New York at Buffalo
- Professional Experience: 30+ years experience in the commercial nuclear industry. Worked 18+ years in Seismic Qualification of equipment and components, and 15+ years of Environmental Qualification experience, in consulting services and in utility positions. Currently works as a senior consultant for Stevenson and Associates with specialization in Seismic and Environmental Qualification, as well as Single Failure-Proof crane design verification.

Walter (Wally) Djordjevic

- Activities Performed: SWE
- Seismic Training Completed: EPRI SQUG training and EPRI NTTF Recommendation 2.3 - Plant Seismic Walkdowns Training
- Education: Masters of Science in Structural Engineering from the Massachusetts Institute of Technology
- Professional Experience: 37+ years of seismic experience serving the nuclear industry. Managed and led seismic walkdowns and fragility analyses of structures and components for use in probabilistic risk assessments. Performed more than twenty USI A-46 and IPEEE projects in response to the requirements of Generic Letters 87-02 and 88-20. Currently works as a senior Consultant and serves as President of Stevenson and Associates with specialization in the dynamic analysis and design of structures and equipment for seismic, blast, fluid, and wind loads.

Dennis Zercher

- Activities Performed: Licensing Basis Reviewer, Peer Reviewer
- Seismic Training Completed: EPRI SQUG Training and Seismic Evaluation Training Course
- Education: Bachelors of Science in Civil Engineering from Michigan Technological University

- Professional Experience: 28+ years of experience in the commercial nuclear industry. A registered Professional Engineer in Minnesota and Wisconsin. Worked as a Structural Engineer at FluiDyne Engineering and PaR Systems. Currently works at the MNGP as a Design Engineer.

Steve Kaas

- Activities Performed: SWE
- Seismic Training Completed: EPRI NTTF Recommendation 2.3 - Plant Seismic Walkdowns Training
- Education: Bachelors of Science in Civil Engineering from North Dakota State University
- Professional Experience: A registered Professional Engineer in Minnesota, Iowa, and Michigan. Currently works as a Senior Civil Engineer at NSPM. President of Kaas Technical Services, Inc., Previously worked as Engineering Manager of Hanson Structural Precast, and a Field Engineer at Wells Concrete Products Company.

Scott Luckiesh

- Activities Performed: SWE
- Seismic Training Completed: EPRI NTTF Recommendation 2.3 - Plant Seismic Walkdowns Training
- Education: Bachelors of Science in Architectural Engineering from Oklahoma State University, and a Masters of Science in Structural Engineering from University of Texas – Austin.
- Professional Experience: A registered Professional Engineer in Minnesota, and was formerly a registered Professional Engineer in Wisconsin, Oklahoma, and Florida. 17+ years of experience with structural engineering at various companies. Currently works as a Design Engineer for NSPM at MNGP, in the areas of external flooding and structural/seismic design.

Jason Kindred

- Activities Performed: Peer Reviewer, Plant Operations
- Seismic Training Completed: N/A
- Education: Bachelors of Science in Mechanical Engineering from University of Wisconsin - Madison
- Professional Experience: 12+ years of experience in the commercial nuclear industry. Spent 11+ years in the United States Navy as a Naval Nuclear Officer. Started in the commercial nuclear industry at the MNGP. Obtained Senior Reactor Operator (SRO) license at the MNGP. Worked as a Shift Support Specialist, Control Room Supervisor, Operations Department Training Supervisor, Operations Shift Manager, and Operations Support Manager. Currently works as the Engineering Plant and Systems Manager at MNGP.

Robert (Bob) Walstrom

- Activities Performed: Equipment Selection, Plant Operations
- Seismic Training Completed: N/A
- Education: Bachelors of Science in Physics from Winona State University
- Professional Experience: 34+ years in Plant Operations at the MNGP. Maintained continuous active Reactor Operator (RO) or SRO license for 30 years. Worked as a non-licensed operator, a control room operator, shift supervisor and shift manager/shift technical advisor. Two years temporary assignment as Initial License Training class mentor/supervisor. Currently retired and supporting Fukushima lessons learned activities.

Thomas (Tom) Parker

- Activities Performed: Equipment Selection, Plant Operations
- Seismic Training Completed: N/A
- Education: Masters of Science in Nuclear Engineering from Iowa State University
- Professional Experience: 34+ years of experience working in the nuclear industry. Spent four years in the United States Navy as a teacher at the Nuclear Power School. Started in the commercial nuclear industry at Zion nuclear plant. After five years at Zion nuclear plant, started working for NSPM and has spent the remainder of career with NSPM at the corporate offices and MNGP. Obtained SRO at the MNGP and was also an RO at the UTR-10 reactor at Iowa State University. Currently retired and supporting Fukushima lessons learned activities.

David L. Moore

- Activities Performed: IPEEE Reviewer
- Seismic Training Completed: EPRI SQUG Training and Seismic Evaluation Training Course
- Education: Bachelor of Science in Physics from University of Texas; Masters of Science in Civil/Structural Engineering from University of Washington
- Professional Experience: 30+ years of seismic PRA and SMA experience for the nuclear industry and NRC. Manager, Systems Task Leader, or Peer Reviewer for over 30 seismic PRAs, SMAs, or USI A-46 assessments. Tasks included development of seismic success paths and seismic equipment lists, performance of seismic walkdowns, quantification of seismic CDF and LERF, and performance of uncertainty and sensitivity analyses. Currently works as a Consultant for several seismic PRA projects, including NRC sponsored research project on treatment of seismic correlation.

4 Selection of SSCs

4.1 OVERVIEW

This section of the report describes the process used to select SSCs that were included in the Seismic Walkdown Equipment List (SWEL). The actual equipment lists that were developed in this process are found in Appendix A of this report and are as follows:

- Table A-1, Monticello Base List 1
- Table A-2, Monticello SWEL 1

4.2 SWEL DEVELOPMENT

The selection of SSCs process described in EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012 (Reference 1), was utilized to develop the SWEL for the MNGP.

The SWEL is comprised of two groups of items:

- SWEL 1 is a sample of items required to safely shut down the reactor and maintain containment integrity.
- SWEL 2 is a list of spent fuel pool related items.

4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions

The process for selecting a sample of SSCs for shutting down the reactor and maintaining containment integrity began with the safe shutdown equipment list (SSEL) utilized for the Seismic Qualification Utility Group (SQUG) effort completed as part of resolution of USI A-46 (Reference 12). The SQUG SSEL was then subjected to the following four screenings to identify the items to be included on the Seismic Walkdown Equipment List 1 (SWEL 1):

1. Screen #1 – Seismic Category 1

As described in Section 3 of Reference 1, Screen #1 narrows the scope of SSCs in the plant to those that are classified as Seismic Category (SC) I, because only such items have a defined seismic licensing basis against which to evaluate the as-installed configuration. Each item on the MNGP SQUG equipment list was reviewed to determine if it had a defined seismic licensing basis. All items identified as Safety Class 1, as defined in Section 12 of the MNGP USAR (Reference 2), were identified as being SC I. Electrical enclosures containing Class 1E devices were identified as SC I.

2. Screen #2 – Equipment or Systems

As described in Section 3 of Reference 1, this screen narrowed the scope of items to include only those that do not regularly undergo inspections to confirm that their configuration is consistent with the plant licensing basis. This screen further reduced the SWEL 1 by screening out any Safety Related SC I structures, containment penetrations, SC I piping systems, cable/conduit raceways and HVAC ductwork.

3. Screen #3 – Support for the 5 Safety Functions

This screen narrowed the scope of items included on the SWEL 1 to only those associated with maintaining the following five safety functions:

A. Reactor Reactivity Control

B. Reactor Coolant Pressure Control

C. Reactor Coolant Inventory Control

D. Decay Heat Removal

E. Containment Function

These five safety functions were defined in Section 3 of Reference 1. The first four functions are associated with bringing the reactor to a safe shutdown condition. The fifth function is associated with maintaining containment integrity.

Utilizing the information in Appendix E of Reference 1, the safety function for each item on the SQUG SSEL was identified. Equipment that did not serve or support one of the five safety functions listed above were excluded from the SWEL 1. Plant Operations staff was involved with the development of SWEL 1, and identified additional systems not included on the SQUG SSEL which were associated with maintaining the five safety functions above. Based on the reviews by Plant Operations, equipment for the Standby Liquid Control, Primary Containment Hard Pipe Vent, Control Room Ventilation, and Emergency Filtration Train systems were added to SWEL 1. The results of this screen are provided in Appendix A of this report as Table A-1.

4. Screen #4 – Sample Considerations

This screen is intended to result in a SWEL 1 that sufficiently represents a broad population of plant Seismic Category 1 equipment and systems to meet the objectives of the NRC 10 CFR 50.54(f) Letter (Reference 6). The final SWEL 1 for MNGP is presented in Appendix A of this report as Table A-2. The following attributes were considered in the selection process for items included on SWEL 1:

A. A variety of types of systems

The system is identified for each item on SWEL 1. The equipment included on SWEL 1 is a representative sample of 29 systems in the plant that perform one or multiple safety functions.

B. Major new and replacement equipment

The equipment included on SWEL 1 includes several items that have been modified or replaced over the past several years. Each item on SWEL 1 that is new or replaced is identified.

C. A variety of types of equipment

The equipment class is identified for each item on SWEL 1. The equipment included on SWEL 1 is a representative sample from 19 of the 21 classes of equipment listed in Appendix B, Classes of Equipment, of Reference 1. Where appropriate, at least one piece of equipment from each class is included on SWEL 1.

Screens #1, #2, and #3 resulted in no equipment in equipment class number 13 for motor generators and class number 2 for low voltage switchgear and breaker panels. There were no motor generators in the plant which performed one of the five safety functions defined in Reference 1. As for the low voltage switchgear, no planned out-of-service is scheduled in the next refueling outage for Class I load centers to allow inspection.

D. A variety of environments

The equipment included on SWEL 1 is a representative sample from a variety of environments (locations) in the station. To ensure an adequate sampling of equipment was selected to represent the Reactor Core Isolation Cooling (RCIC), and High Pressure Coolant Injection (HPCI) systems, additional equipment from these systems was added to the SWEL 1.

Equipment was also reviewed for accessibility. Equipment that is inaccessible without the use of scaffolding or portable ladders was excluded from SWEL 1. Also, equipment located in high radiation areas was also excluded from SWEL 1 with the exception of three components in the Steam Chase and the Dry Well. These items are listed in Table D-1 in Appendix D of this report, and will be walked down during a refueling outage.

E. Equipment enhanced due to vulnerabilities identified during the IPEEE program

The equipment included on SWEL 1 includes items that were enhanced as a result of the IPEEE program. Each item on SWEL 1 that was enhanced to correct a vulnerability from IPEEE is identified.

F. Contribution to risk

To determine the relative risk significance of equipment for inclusion on SWEL 1, the Risk Achievement Worth (RAW) and Fussell-Vesely importance

from the internal plant Probabilistic Risk Assessment (PRA) models were used to create a list of the top forty risk-significant components. Initiating events, maintenance events and human error events were not considered in the generation of this list.

In selecting equipment for SWEL 1 that met the above attributes, the equipment in the draft SWEL 1 had to first pass through Screens 1 through 4 before being assessed for being risk significant. Then risk significant equipment was identified based on the above criteria, and a subset of the more risk-significant equipment was selected to be on the final SWEL 1. Additionally, the list of risk-significant equipment from internal plant PRA was compared with the draft SWEL 1 to confirm that a reasonable sample of risk-significant equipment (relevant for a seismic event) was included on SWEL 1.

4.2.2 SWEL 2 – Spent Fuel Pool Related Items

The process for selecting a sample of SSCs associated with the spent fuel pool (SFP) began with a review of the station design and licensing basis documentation for the SFP and the interconnecting SFP cooling system. The following four screens narrowed the scope of SSCs to be included on the second Seismic Walkdown Equipment List (SWEL 2):

1. Screen #1 - Seismic Category 1

Only those items identified as Class 1 (SC I) are to be included on SWEL 2 with exception to the SFP structure. As described in Reference 1, the adequacy of the SFP structure is assessed by analysis as a SC 1 structure. Therefore, the SFP structure is assumed to be seismically adequate for the purposes of this program and is not included in the scope of items included on SWEL 2. Within the SFP system, MNGP identified several manual valves and check valves classified as Class 1 equipment.

2. Screen #2 – Equipment or Systems

This screen considers only those items associated with the SFP that are appropriate for an equipment walkdown process. Appendix B of Reference 1 lists the classes of equipment that are appropriate for the equipment walkdown process. All of the Class 1 SFP equipment identified in Screen #1 was determined not to be suitable for the seismic walkdown process. The equipment identified in Screen #1 included manual valves and check valves which are not listed as classes of equipment appropriate for the walkdowns in the EPRI Report (Reference 1).

3. Screen #3 – Sample Considerations

This screen is similar to Screen #4 used for SWEL 1. It represents a process that is intended to result in a SWEL 2 that sufficiently represents a broad population of SFP Seismic Category 1 equipment and systems to meet the objectives of the NRC 10 CFR 50.54(f) Letter. All of the Class 1 equipment identified for the SFP was determined not to be appropriate for an equipment walkdown process in Screen #2. Therefore, Screen #3 was not necessary for MNGP.

4. Screen #4 – Rapid Drain-Down

This screen identifies items that could allow the spent fuel pool to drain rapidly. Consistent with Reference 1, the scope of items included in this screen is limited to the hydraulic lines connected to the SFP and the equipment connected to those lines. For the purposes of this program it is assumed the SFP gates are installed and the SFP cooling system is in its normal alignment for power operations. The SFP gates are passive devices that are integral to the SFP. As such, they are considered capable of withstanding a design basis earthquake without failure and do not allow for a rapid drain-down of the SFP.

The SSCs identified in this screen are not limited to Class 1 (SC I) items, but is limited to those items that could allow rapid drain-down of the SFP. Rapid drain-down is defined as lowering of the water level to the top of the fuel assemblies within 72 hours after the earthquake.

The design and licensing basis for the SFP and its cooling system was reviewed, and it was determined that there are no penetrations below ten feet above the top of the fuel assemblies in the SFP. Additionally, the spent fuel storage pool has been designed to withstand earthquake loadings as a Class I structure. It is a reinforced concrete structure, completely lined with seam-welded, stainless steel plates welded to reinforcing members (channels, I-beams, etc.) embedded in concrete. The stainless steel liner prevents leakage even in the event the concrete develops cracks. To avoid unintentional draining of the pool, there are no penetrations that would permit the pool to be drained below a safe storage level and all lines extending below this level are equipped with valving to prevent syphon backflow. The passage between the spent fuel storage pool and the refueling cavity above the reactor vessel is provided with two double-sealed gates with a monitored drain between the gates (Reference 2, Section 10.2.1.2). Therefore, no items which could rapidly drain-down the SFP were included on SWEL 2 for MNGP.

4.2.3 SWEL 2 Development Conclusion

MNGP identified several manual valves and check valves within the SFP system that are classified as Class 1 equipment. However, these components are not listed in Reference 1 as classes of equipment appropriate for the walkdowns. Additionally, there are no penetrations below ten feet above the top of the fuel assemblies in the SFP which could rapidly drain-down the SFP. Therefore, no items were identified for SWEL 2 for the Monticello Nuclear Generating Plant.

5 Seismic Walkdowns and Area Walk-Bys

5.1 Overview

Seismic Walkdowns and Area Walk-Bys were conducted by two 2-person teams of trained Seismic Walkdown Engineers (SWE), in accordance with Reference 1. The Seismic Walkdowns and Area Walk-Bys are discussed in more detail in the following sections.

Consistent with Section 4, Seismic Walkdowns and Area Walk-Bys, of Reference 1 the SWEs used their engineering judgment, based on their experience and training, to identify potentially adverse seismic conditions. Where needed, the engineers were provided the latitude to rely upon new or existing analyses to inform their judgment.

The SWEs conducted the Seismic Walkdowns and Area Walk-Bys together as a team, in accordance with Reference 1. During these evaluations, the SWEs actively discussed their observations and judgments with each other. The results of the Seismic Walkdowns and Area Walk-Bys reported herein are based on the comprehensive and consensus agreement of the SWEs.

5.2 Seismic Walkdowns

The Seismic Walkdowns focused on the seismic adequacy of the items in SWEL 1, provided in Table A-2 of Appendix A in this report. The Seismic Walkdowns also evaluated the potential for nearby SSCs to cause adverse seismic interactions with the SWEL items. The seismic walkdown teams focused on the following adverse seismic conditions associated with the subject item of equipment:

- Adverse anchorage conditions
- Adverse seismic spatial interactions
- Other adverse seismic conditions

The results of the seismic walkdowns have been documented on the Seismic Walkdown Checklists (SWCs) and Area Walkby Checklists (AWCs) provided in Appendix C, Checklists, of Reference 1. Seismic Walkdowns were performed and a SWC completed for 78 of the 100 equipment identified on the MNGP SWEL 1. The completed SWCs for MNGP are provided in Appendix B of this report. Additionally, photos have been included with most SWCs to provide a visual record of the item along with any comments noted on the SWC. Drawings and other plant records are cited in some of the SWCs, but are not included with the SWCs because they are readily retrievable documents through the station's document management system.

Seismic Walkdowns are deferred for the remaining 22 items to a refueling outage or appropriate time when the equipment is accessible. These items could not be walked down during the 180 day period following the NRC's endorsement of the EPRI Report (Reference 1) due to being inaccessible. Inaccessibility of this equipment was either based on the location of the equipment or due to the electrical safety hazards posed while the equipment is energized. Appendix D of this report identifies the inaccessible or deferred equipment, along with the plan for future Seismic Walkdowns.

The following subsections describe the approach followed by the SWEs to identify potentially adverse anchorage conditions, adverse seismic interactions, and other adverse seismic conditions during the Seismic Walkdowns.

5.2.1 Adverse Anchorage Conditions

Guidance for identifying anchorage that could be degraded, non-conforming, or unanalyzed relied on visual inspections of the anchorage and verification of anchorage configuration. Details for these two types of evaluations are provided in the following two subsections.

The evaluation of potentially adverse anchorage conditions described in this subsection applies to the anchorage connections that attach the identified item of equipment to the civil structure on which it is mounted. For example, the welded connections that secure the base of a Motor Control Center (MCC) to the concrete floor would be evaluated in this subsection. Evaluation of the connections that secure components within the MCC is covered later in the subsection "Other Adverse Seismic Conditions."

Visual Inspections

The purpose of the visual inspections was to identify whether any of the following potentially adverse anchorage conditions were present:

- Bent, broken, missing, or loose hardware
- Corrosion that is more than mild surface oxidation
- Visible cracks in the concrete near the anchors
- Other potentially adverse seismic conditions

Based on the results of the visual inspection, the SWEs judged whether the anchorage was potentially degraded, non-conforming, or unanalyzed. The results of the visual inspection were documented on the SWC, as appropriate. If there was clearly no evidence of degraded, nonconforming, or unanalyzed conditions, then it was indicated on the checklist. However, if it was not possible to judge whether the anchorage was degraded, nonconforming, or unanalyzed, then the condition was evaluated and entered into the Corrective Action Program if it was determined to be a potentially adverse seismic condition.

5.2.2 Configuration Verification

In addition to the visual inspections of the anchorage as described above, the configuration of the installed anchorage was verified to be consistent with existing plant

documentation for at least 50% of the items on the SWEL, per the guidance in Section 4 of Reference 1.

Line-mounted equipment (e.g., valves mounted on pipelines without separate anchorage) were not evaluated for anchorage adequacy and were not counted in establishing the 50% sample size, per the guidance in Section 4 of Reference 1.

Examples of documentation that were considered to verify that the anchorage installation configurations were consistent with the plant documentation include the following:

- Design drawings
- IPEEE or USI A-46 program documentation, as applicable

The Table B-1 in Appendix B documents which SWCs had anchorage confirmation performed.

Table B-1 in Appendix B documents which SWCs had anchorage confirmation performed. Additionally, Table 5-1 below shows the final count of the 50% anchorage configuration verifications.

Table 5-1: Anchorage Configuration Verification

SWEL	No. of SWEL Items (A)	Line-Mounted Items (B)	Required to Verify? (A-B)/2	Anchorages Verified
1	100	18	41	44 (37 completed and 7 deferred)

5.2.3 Adverse Seismic Spatial Interactions

An adverse seismic spatial interaction is the physical interaction between the SWEL item and a nearby SSC caused by relative motion between the two during an earthquake. An inspection was performed in the area adjacent to and surrounding the SWEL item to identify any seismic interaction conditions that could adversely affect the capability of that SWEL item to perform its intended safety-related functions.

The three types of seismic spatial interaction effects that were considered are as follows:

- Proximity
- Failure and falling of SSCs
- Flexibility of attached lines and cables

Detailed guidance for evaluating each of these types of seismic spatial interactions is described in Appendix D, Seismic Spatial Interaction, of Reference 1.

The Seismic Walkdown Engineers exercised their judgment to identify seismic interaction hazards. Section 5.2.5 provides a summary of issues identified during the Seismic Walkdowns.

5.2.4 Other Adverse Seismic Conditions

In addition to adverse anchorage conditions and adverse seismic interactions, described above, other potentially adverse seismic conditions that could challenge the seismic adequacy of a SWEL item could have been present. Examples of the types of conditions that could pose potentially adverse seismic conditions include the following:

- Degraded conditions
- Loose or missing fasteners that secure internal or external components to equipment
- Large, heavy components mounted on a cabinet that are not typically included by the original equipment manufacturer
- Cabinet doors or panels that are not latched or fastened
- Other adverse conditions

In September 2012, a revised position from the NRC Staff in regards to Seismic Walkdowns of electrical cabinets or panels was sent to all licensees by the Nuclear Energy Institute (NEI). In this document from NEI, it was communicated that it is expected that all electrical cabinets on the SWEL that can be reasonably opened without undue safety or operational hazard will be opened during the walkdown, whether or not it is necessary to look inside to check the anchorages. The NRC Staff described the visual inspection that should be made while viewing the interior of the cabinet through the door opening as including the following checks:

- Visually check whether there is evidence that internal components are not adequately secured to the cabinet,
- Check whether fasteners that secure adjacent cabinets together are in place, if such fasteners are needed to prevent potentially adverse seismic interaction between the cabinets, and
- Look for "Other Adverse Seismic Conditions," as described on page 4-4 of the Seismic Walkdown Guidance.

Due to the timing of this communication, MNGP did not complete this internal inspection of all electrical cabinets or panels. Some inspections were deferred to a future refueling outage or an appropriate time when the equipment is accessible. The electrical cabinets and panels which still need to be internally inspected are identified in Table D-1 of Appendix D of this report. The SWCs for the equipment identified in Table D-1 that cannot be opened for internal inspections will be revised at the time of the supplemental walkdowns to indicate the results of these internal inspections.

Any other adverse seismic conditions that were identified during the Seismic Walkdowns are documented on the items' SWCs in Appendix B and Table 5-2, as applicable.

5.2.5 Issues Identified during Seismic Walkdowns

Table 5-2 at the end of this section provides a summary of issues identified during the equipment Seismic Walkdowns. The equipment Seismic Walkdowns resulted with a total of nine concerns identified and each of these concerns was entered into the station's CAP. All of the identified concerns were assessed for operability and it was concluded that the issue would not prevent the associated equipment from performing its safety-related function(s). The issues identified were predominantly associated with seismic

interaction and plant drawing discrepancies. None of the concerns identified by the SWEs during the equipment Seismic Walkdowns were judged to be potentially adverse seismic conditions that could affect the safety-related functions of equipment.

5.3 AREA WALK-BYS

The purpose of the Area Walk-Bys is to identify potentially adverse seismic conditions associated with other SSCs located in the vicinity of the SWEL items. Vicinity is generally defined as the room containing the SWEL item. If the room is very large (e.g., Turbine Hall), then the vicinity is identified based on judgment, e.g., on the order of about 35 feet from the SWEL item. This vicinity is described on the Area Walk-By Checklist (AWC), provided in Appendix C of this report. A total of 36 Area Walk-bys were performed for MNGP.

The key examination factors that were considered during Area Walk-Bys include the following:

- Anchorage conditions (if visible without opening equipment)
- Significantly degraded equipment in the area
- A visual assessment (from the floor) of cable/conduit raceways and HVAC ducting (e.g., condition of supports or fill conditions of cable trays)
- Potentially adverse seismic interactions including those that could cause flooding, spray, and fires in the area
- Other housekeeping items that could cause adverse seismic interaction (including temporary installations and equipment storage)
- Scaffold construction was inspected to meet site procedure (Reference 7).
- Seismic housekeeping was examined to meet site procedure (Reference 8).

The Area Walk-Bys are intended to identify adverse seismic conditions that are readily identified by visual inspection, without necessarily stopping to open cabinets or taking an extended look. If a potentially adverse seismic condition was identified during the Area Walk-By, then additional time was taken, as necessary, to evaluate adequately whether there was an adverse condition and to document any findings.

The results of the Area Walk-Bys are documented on the AWCs included in Appendix C of this report. A separate AWC was filled out for each area inspected. A single AWC was completed for areas where more than one SWEL item was located.

Additional details for evaluating the potential for adverse seismic interactions that could cause flooding, spray, or fire in the area are provided in the following two subsections.

5.3.1 Seismically-Induced Flooding/Spray Interactions

Seismically-induced flooding/spray interactions are the effect of possible ruptures of vessels or piping systems that could spray, flood or cascade water into the area where SWEL items are located. This type of seismic interaction was considered during the IPEEE program. Those prior evaluations were considered, as applicable, as information for the Area Walk-Bys.

Examples where seismically-induced flooding/spray interactions could occur include the following:

- Fire protection piping with inadequate clearance around fusible-link sprinkler heads
- Non-ductile mechanical and threaded piping couplings can fail and lead to flooding or spray of equipment
- Long, unsupported spans of threaded fire protection piping
- Flexible headers with stiffly supported branch lines
- Non-Seismic Category I tanks

The SWEs exercised their judgment to identify only those seismically-induced interactions that could lead to flooding or spray. Any seismically-induced flooding/spray interactions that were identified during the Area Walk-bys are documented on the AWCs in Appendix C and Table 5-3 below, as applicable.

5.3.2 Seismically-Induced Fire Interactions

Seismically-induced fire interactions can occur when equipment or systems containing hazardous/flammable material fail or rupture. This type of seismic interaction was considered during the IPEEE program. Those prior evaluations were considered, as applicable, as information for the Area Walk-Bys.

Examples where seismically-induced fire interactions could occur include the following:

- Hazardous/flammable material stored in inadequately anchored drums, inadequately anchored shelves, or unlocked cabinets
- Natural gas lines and their attachment to equipment or buildings
- Bottles containing acetylene or similar flammable chemicals
- Hydrogen lines and bottles

Another example where seismically-induced fire interaction could occur is when there is relative motion between a high voltage item of equipment (e.g., 4160 volt transformer) and an adjacent support structure when they have different foundations. This relative motion can cause high voltage busbars, which pass between the two, to short out against the grounded bus duct surrounding the busbars and cause a fire.

The Seismic Walkdown Engineers exercised their judgment to identify only those seismically-induced interactions that could lead to fires. Any seismically-induced fire interactions that were identified during the Area Walk-bys are documented on the AWCs in Appendix C and Table 5-3 below, as applicable.

5.3.3 Issues Identified during Area Walk-bys

In total, 16 issues were identified during the Area Walk-Bys and entered into the site's CAP. Table 5-3 at the end of this section provides a summary of the issues identified during the Area Walk-Bys. All of the identified concerns were assessed for operability and it was concluded that the issue would not prevent the associated equipment from performing its safety-related function(s). None of the concerns identified by the SWEs during the Area Walk-Bys were judged to be potentially adverse seismic conditions that could affect the safety-related functions of equipment in the area.

Table 5-2: CAP Status for SWCs

Equipment ID	Description of Issue	CAP	Status
AO-4539	SWE's noted 2G4007 conduit used as anchor point to tie other power cables using tie wraps. Also noted electrical tape used to hold up power cables at connection point on valve.	1346939	This condition was determined not to be an adverse condition, however, WR 83827 was written to re-support the cable for AO-4539.
CRD HCU W	CST line is in contact with CRD structural column. WR 62289 was initiated as part of CAP 1259196 to address rubbing.	1259196	This condition was identified in CAP 1259196. This is being addressed in the work order process under WR 62289 and WO 417791. It is not an adverse seismic concern.
D31	Plant drawing inaccurate with installation of anchors. SEWS evaluation on anchors uses correct "as found" configuration.	1350165	The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
D31	Plant drawing inaccurate with installation of anchors. SEWS evaluation on anchors uses correct "as found" configuration.	1346890	The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
P-203A	Tall scaffold is constructed above the pump. Verify the seismic assessment of this scaffold.	1347002	The engineer responsible for scaffolding evaluations reviewed the scaffold and determined it was adequately braced to prevent sliding and overturning during a seismic event.
P-209	There are eight 1" CIP anchor bolts per NX-8292-43 while the walkdown only found six 1" CIP anchor bolts.	1346272	The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
T-200	There is a discrepancy between Drawing NX7879-8-1 and what is installed in the plant.	1347243	The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
T-200	Verify the seismic assessment for the scaffold near tank.	1347002	The engineer responsible for scaffolding evaluations reviewed the scaffold and determined it was adequately braced to prevent sliding and overturning during a seismic event.

Table 5-2: CAP Status for SWCs			
Equipment ID	**Description of Issue**	**CAP**	**Status**
V-SF-9	Drawing NX-9290-3 anchor bolt configuration does not match field. Bolt pattern does match 1995 SEWS.	1345975	As documented in the SEWs, there is no seismic concern, however, the drawing will be updated to reflect field conditions.

Table 5-3: CAP Status for AWCs			
Area Walk-by Designation	**Description of Issue**	**CAP**	**Status**
2	Fire station contains victaulic couplings. Station is bolted to wall. FP line runs up to roof of this floor and into the floor. No sign of lateral bracing. Three victaulic couplings are spaced closely together. Is this line adequate for seismic loads? Line is charged with water. Line is also in contact with conduit N43158 and in contact with HVAC duct support. (SWEs could not see lateral support above for FP line).	1346922	This line was determined to be adequately supported. There is no seismic concern.
7	In the Intake Structure, Sodium Hypochlorite residue was found on valve SHC-28 as well as from the ceiling, indicating a leak.	1346885	This issue is being addressed by the work management process. It is not a seismic concern.
10	Cable tray MP404 & MP403 appears to be in contact with C-27.	1345963	This issue has been previously analyzed and was determined not to be a seismic issue.
12	In the "A" RHR room, South wall, No. 11 RHR pump seal cooling water supply (RBCCW), line support, there is a U-bolt that is missing a nut and the other nut is not fully engaged. On a second support, one nut is not fully engaged and the other nut is partially missing.	1346654	This condition is being addressed by the work management process. It is not an adverse seismic concern.
12	Vertical tube support (3") has two anchor bolts into the floor. Nuts are not tight to the base plates. Located next to RHR-18-1 handwheel.	1346643	This condition is being addressed in the work management process. It is not an adverse seismic concern.

Table 5-3: CAP Status for AWCs

Area Walk-by Designation	Description of Issue	CAP	Status
14	Also compressed bottle on cart is within a few inches of MCC-312. Wheels are locked. Does this meet station house keeping procedure?	1346030	Plant operations moved the cart to comply with housekeeping procedures. It is not a seismic concern.
15	Reddish deposit noted on one of two anchor bolts on vertical support of structural angle supporting two pipelines. The lines are 1" diameter connecting SV-2849 to contaminated drain line and RCIC - (14) (2" diameter line) - "To RCIC pump suction". SWE's cannot judge condition of one anchor bolt that is covered over with corrosion deposits. Other anchor bolt is not corroded.	1346642	The bolts were cleaned under WR 82134 and found to be in good condition. It is not a seismic concern.
19	Tie wrap used to anchor electrical cable to conduit 2G4010.	1346939	This condition was determined not to be a condition adverse to quality and it is not a seismic concern. WR 83827 was initiated to re-support the extra cable length for AO-4539.
20	Cable ties are fastening a flexible conduit to a cable tray support.	1346170	This condition was determined not to be a condition adverse to quality and it is not a seismic concern.
25	At the SBLC pump and tank area, there is a large amount of scaffolding, some of which is one level (~7' high), some of which has two levels (~14' high). Are the lateral attachments and overturning restraints adequate to achieve 2 over 1?	1347002	The engineer responsible for scaffolding evaluations reviewed the scaffold and determined it was adequately braced to prevent sliding and overturning during a seismic event.
27	Hoist is resting on LC-101 480V Load Center. It also poses an impact hazard, and has open s-hooks.	1349068	It was determined not to be an adverse seismic condition.
27	Fire extinguisher near non safety 4.16kV 4kVB-06 cubicle is an interaction hazard as it can fall off hook.	1349068	It was determined not to be an adverse seismic condition..

Table 5-3: CAP Status for AWCs

Area Walk-by Designation	Description of Issue	CAP	Status
27	Hoist restraint on non-essential LC-109 should be replaced with a restraint more appropriate than wire.	1349068	It was determined not to be an adverse seismic condition.
28	Lighting is pendant-hung and can swing into MCC-133B. Cable trays are supported by strut systems which are adequate.	1349068	It was determined not to be an adverse seismic condition.
28	Pendant light is an interaction hazard to conduit connected to MCC-133A.	1349068	It was determined not to be an adverse seismic condition.
31	FP line is in contact with DO fuel line.	1345971	This condition was found to be acceptable as any potential failures would not have any negative impact on the ability of the plant to safely shutdown.

6 Licensing Basis Evaluations

Section 5, *Seismic Licensing Basis Evaluation*, of Reference 1 provides a detailed process to perform and document seismic licensing basis evaluations of SSCs identified when potentially adverse seismic conditions are identified during the equipment Seismic Walkdowns or Area Walk-Bys. The process provides a means to identify, evaluate and document how the identified potentially adverse seismic condition meets the site's seismic licensing basis without entering the condition into the site's Corrective Action Program (CAP). Further, the process directs that if a condition cannot be readily shown to meet the seismic licensing basis, then the identified condition should be entered into the station's CAP where it will be determined that the condition does or does not meet the seismic licensing basis.

All potentially adverse seismic conditions that were identified during the equipment Seismic Walkdowns or Area Walk-Bys were entered into the station's CAP. Therefore, no seismic licensing basis evaluations were completed in accordance with the process documented in Section 5 of Reference 1. Tables 5-2 and 5-3 at the end of Section 5 of this report provide a summary of the issues identified in both the Seismic Walkdowns and Area Walk-Bys.

7

IPEEE Vulnerabilities Resolution Report

In the NRC 10 CFR 50.54(f) letter (Reference 6), the NRC requested that licensees provide a list of plant-specific vulnerabilities (including any seismic anomalies, outliers, or other findings) identified by the Individual Plant Examination of External Events (IPEEE) and a description of the actions taken to eliminate or reduce them (including their completion dates), as part of NTTF Recommendation 2.3 – Seismic.

Section 7, IPEEE Vulnerabilities, of Reference 1 provides guidance for addressing and reporting the evaluations related to the Individual Plant Examination of External Events (IPEEE) program and the actions taken in response to the vulnerabilities that were identified during that program. According to the guidance in Reference 1, the submittal report should describe the actions taken to eliminate or reduce the IPEEE seismic vulnerabilities, and the date the actions were documented as complete. Table 7-1 and the following paragraphs provide this information.

NRC Generic Letter 88-20, Supplement No. 4, "Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities," dated June 28, 1991 (Reference 9), requested licensees to complete an IPEEE. The purpose of the IPEEE is to (1) develop appreciation of severe accident behavior, (2) understand the most likely severe accident sequences that occur under full power conditions, (3) gain a qualitative understanding of the overall likelihood of core damage and radioactive material release, and (4) to identify potential plant enhancements to reduce the overall likelihood of core damage and radioactive material releases. By letter dated March 1, 1995 (Reference 5), Monticello forwarded the report documenting the results of the Monticello Individual Plant Examination of External Events (IPEEE) as requested by Generic Letter 88-20. In addition to seismic events, this report addressed internal fires, high winds, floods and other credible external events. By letter dated November 20, 1995 (Reference 11), Monticello submitted revised information concerning the evaluation of internal fires as well as the seismic event evaluation.

The NRC review of information for the submittals related to IPEEE determined that no vulnerabilities associated with aspects of external events were identified and that the staff considers these issues resolved for Monticello (Reference 10). The NRC Staff made this conclusion on the basis that (1) the US1 A-46 program would upgrade the plant to the SSE level, and (2) assuming the failure of all seismic equipment list (SEL) equipment that were not screened at the review-level earthquake level, the plant would still be able to achieve safe shutdown. The following three plant improvements, which were stated by MNGP to be made as part of the US1 A-46 program, were necessary in order to make the statement that the plant would be capable of safe shutdown after an SSE:

- Fastening of U-bolts on diesel generator starting air receivers.
- Eliminating the potential impact of an HVAC duct on a relay panel.
- Upgrading light fixtures in the control room to have a means of anchorage independent of the T-bar supports.

Table 7-1 below lists the resolutions for these three IPEEE plant improvements, and when these resolutions were completed. Of the three IPEEE improvements listed in the table below, the DG 11 and DG 12 air receivers were selected for MNGP SWEL 1. The equipment tags for the air receivers are T-79D and T-80A, respectively. Anchorage configuration verifications were performed for both of these components, and no adverse seismic conditions were identified. In addition to performing Seismic Walkdowns on the 11 DG and 12 DG air receivers, an Area Walk-by was performed in the cable spreading room. No seismic issues for the C-32 relay panel were identified as a result of the Area Walk-by.

Table 7-1: Monticello IPEEE Seismic Improvements

Equipment Description	Potential Failure Mode	Resolution	Date Completed
DG 11 and 12 Air Receivers	Sliding-induced pipe failure. Pre-tension of U-bolts not reliable.	Analysis determined that a torque value of 15 ft-lb would apply adequate tension to assure that friction forces would adequately restrain the tanks in an axial direction. Work Order 9603068 and Work Order 9603069 applied a torque value of 15 ft-lb to the U-bolts.	December of 1996
Relay Panel C32	Relay chatter due to impact with HVAC duct behind panel.	Work Order 9602745 and modification 96Q035, Resolution of SQUG Outliers, trimmed the flanges of the HVAC duct so that it could not make contact with the panels. This eliminated the potential for the duct to impact the panels and cause essential relays to chatter.	December of 1996
Control Room Ceiling	Ceiling collapse. Ceiling system unbraced, vulnerable T-bar connections, light fixtures not safety-wired.	It was originally thought that all of the lights were not safety wired, however when trying to resolve this outlier it was found that the 2'x4' lights directly above the main control boards were supported from the ceiling by rods. The other ceiling lights were not independently supported from the ceiling. Work Order 9602920 and Modification 96Q035, Resolution of SQUG Outliers, installed safety wires on all of the lights over the listed panels to assure that they are independently supported and will not be a seismic interaction hazard.	December of 1996

8 Peer Review

A peer review team consisting of at least two individuals was assembled and peer reviews were performed in accordance with Section 6, *Peer Review*, of Reference 1. The Peer Review process included the following activities:

- Review of the selection of SSCs included on the SWEL
- Review of a sample of the checklists prepared for the Seismic Walkdowns and Area Walk-Bys
- Review of Licensing basis evaluations, as applicable
- Review of the decisions for entering the potentially adverse conditions into the CAP process
- Review of the submittal report
- Provide a summary report of the peer review process in the submittal report

The peer reviews were performed independently from this report. The summary Peer Review Report is provided in Appendix E of this report.

9 References

1) EPRI Technical Report 1025286, "Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic," dated June 2012.

2) Monticello Nuclear Generating Plant Updated Safety Analysis Report (USAR), Revision 28.

3) NSPM (M.A. Schimmel) Letter to NRC, "Monticello Nuclear Generating Plant's 120-Day Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Seismic Aspects of Recommendations 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated July 9, 2012.

4) NRC Letter, "Endorsement of Electric Power Research Institute (EPRI) Draft Report 1025286, 'Seismic Walkdown Guidance,'" dated May 31, 2012, ADAMS Accession No. ML12145A529.

5) Northern States Power (W.J. Hill) Letter to NRC, "Submittal of Monticello Individual Plant Examination of External Events (IPEEE) Report," dated March 1, 1995.

6) NRC (E Leeds and M Johnson) Letter, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident" dated March 12, 2012, ADAMS Accession No. ML12053A340.

7) Monticello Nuclear Generating Plant procedure 4 AWI-04.02.01, *Housekeeping*, Revision 19.

8) Monticello Nuclear Generating Plant procedure 4 AWI-04.05.10, *Scaffolding Controls*, Revision 8.

9) Supplement 4 of Generic Letter 88-20, "Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities," issued June of 1991.

10) NRC (C.F. Lyon) Letter to NSP (M.F. Hammer), "Review of Monticello Individual Plant Examination of External Events (IPEEE) Submittal (TAC No. M83644)," dated April 17, 2000.

11) NSP (W.J. Hill) Letter to NRC, "Individual Plant Examination of External Events (IPEEE) Report, Revision 1; Seismic Analysis, Revision 0 and Internal Fires Analysis, Revision 1 (TAC M83644)," dated November 20, 1995.

12) NSP (W.J. Hill) Letter to NRC, "Response to Supplement 1 to Generic Letter 87-02, Submittal of USI A-46 Seismic Evaluation Report (TAC M69460)," dated November 20, 1995.

A Equipment Lists

Appendix A contains the equipment lists that were developed as part of the equipment selection for the SWEL. Note that MNGP did not identify any items which required walkdowns for SWEL 2, so a Base List 2 and SWEL 2 are not provided in this appendix.

The following contents are found in Appendix A:

A.1 Equipment Selection – Base List 1

Table A-1 is a list of the equipment resulting from Screen #3 and entering Screen #4. The screens utilized for selecting equipment for the SWEL is described in Section 4 of this report. This list of initial equipment is called "Base List 1," per the guidance in Reference 1.

Table A-1: Monticello Base List 1

Equipment Tag	Description	Class[1]	Safety Function[2]	System[3]
152-503	4KV BREAKER P-202C	(03) Medium Voltage Switchgear	3, 4, 5	4KV
152-504	4KV BREAKER P-202A	(03) Medium Voltage Switchgear	3, 4, 5	4KV
152-505	4KV TO P-208A 11 Core Spray Pump	(03) Medium Voltage Switchgear	3	4KV
152-605	4KV TO P-208B 12 Core Spray Pump	(03) Medium Voltage Switchgear	3	4KV
AO-2-2-11A	11 RECIRC PUMP SEAL LEAKOFF	(07) Fluid-Operated Valves	3, 5	REC
AO-2-2-11B	12 RECIRC PUMP SEAL LEAKOFF	(07) Fluid-Operated Valves	3, 5	REC
AO-2377	ALT N2 B	(21) Tanks and Heat Exchangers	5	AN2
AO-2377	DW & TORUS PURGE OTBD ISOL	(07) Fluid-Operated Valves	5	PCT
AO-2378	ALT N2 A	(21) Tanks and Heat Exchangers	5	AN2
AO-2378	TORUS PURGE INBD ISOL	(07) Fluid-Operated Valves	5	PCT
AO-2379	VACUUM RELIEF DAMPER	(07) Fluid-Operated Valves	5	PCT
AO-2380	VACUUM RELIEF DAMPER	(07) Fluid-Operated Valves	5	PCT
AO-2381	ALT N2 A	(21) Tanks and Heat Exchangers	5	AN2

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
AO-2381	DW PURGE INBD ISOL	(07) Fluid-Operated Valves	5	PCT
AO-2383	ALT N2 A	(21) Tanks and Heat Exchangers	5	AN2
AO-2383	TORUS PURGE EXH INBD	(07) Fluid-Operated Valves	5	PCT
AO-2386	DW PURGE EXH INBD	(07) Fluid-Operated Valves	5	PCT
AO-2386	ALT N2 A	(21) Tanks and Heat Exchangers	5	AN2
AO-2387	ALT N2 B	(21) Tanks and Heat Exchangers	5	AN2
AO-2387	DW OTBD VENT	(07) Fluid-Operated Valves	5	PCT
AO-2-80A	INBOARD MSIV	(07) Fluid-Operated Valves	2, 3, 5	MST
AO-2-80B	INBOARD MSIV	(07) Fluid-Operated Valves	3, 5	MST
AO-2-80C	INBOARD MSIV	(07) Fluid-Operated Valves	3, 5	MST
AO-2-80D	INBOARD MSIV	(07) Fluid-Operated Valves	3, 5	MST
AO-2-86A	A MSIV OUTBD	(07) Fluid-Operated Valves	3, 5	MST
AO-2-86B	B MISV OUTBD	(07) Fluid-Operated Valves	3, 5	MST
AO-2-86C	C MSIV OUTBD	(07) Fluid-Operated Valves	3, 5	MST
AO-2-86D	D MSIV OUTBD	(07) Fluid-Operated Valves	3, 5	MST
AO-2896	ALT N2 B	(21) Tanks and Heat Exchangers	5	AN2
AO-2896	TORUS PURGE EXH OTBD ISOL	(07) Fluid-Operated Valves	5	PCT
AO-4539	HARD PIPE VENT INBOARD ISOLATION VALVE	(07) Fluid-Operated Valves	5	PCT
AV-3147	11 RHR SW PUMP P-109A AUTO AIR VENT	(07) Fluid-Operated Valves	4, 5	RSW

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
AV-3148	14 RHR SW PUMP P-109D AUTO AIR VENT	(07) Fluid-Operated Valves	4, 5	RSW
AV-3149	13 RHR SW PUMP P-109C AUTO AIR VENT	(07) Fluid-Operated Valves	4, 5	RSW
AV-3150	12 RHR SW PUMP P-109B AUTO AIR VENT	(07) Fluid-Operated Valves	4, 5	RSW
AV-3155	11 ESW PUMP P-111A DISCHARGE AIR VENT	(07) Fluid-Operated Valves	3, 4	ESW
AV-3156	12 ESW PUMP P-111B DISCHARGE AIR VENT	(07) Fluid-Operated Valves	3, 4	ESW
AV-4024	13 ESW PUMP P-111C DISCHARGE AIR VENT	(07) Fluid-Operated Valves	3, 4, 5	FSW
AV-4026	14 ESW PUMP P-111D DISCHARGE AIR VENT	(07) Fluid-Operated Valves	3, 4, 5	FSW
BPM-1, Location:11 DG	DC-BOOSTER PUMP MOTOR	(05) Horizontal Pumps	1, 3, 4, 5	DGN
BPM-1, Location: 12 DG	DC-BOOSTER PUMP MOTOR	(05) Horizontal Pumps	3, 4, 5	DGN
BPM-2, Location: 11 DG	DC-BOOSTER PUMP MOTOR	(05) Horizontal Pumps	3, 4, 5	DGN
BPM-2, Location: 12 DG	DC-BOOSTER PUMP MOTOR	(05) Horizontal Pumps	3, 4, 5	DGN
BUS 15	4160 SWITCHGEAR	(03) Medium Voltage Switchgear	1, 2, 3, 4, 5	4KV
BUS 16	4160 SWITCHGEAR	(03) Medium Voltage Switchgear	1, 3, 4, 5	4KV
C-03	RX AND CTMT COOLING AND ISOL BENCH BOARD	(20) Instrumentation and Control Panels and Cabinets	2, 3, 4, 5	MSC
C-04	RWC RECIRCULATING BENCH BOARD	(20) Instrumentation and Control Panels and Cabinets	1, 3	MSC
C-05	REACTOR CONTROL BENCH BOARD	(20) Instrumentation and Control Panels and Cabinets	1, 3	MSC

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
C-06	FEEDWATER AND CONDENSATE BENCHBOARD	(20) Instrumentation and Control Panels and Cabinets	NONE	MSC
C-07	TURBINE BENCH BOARD	(20) Instrumentation and Control Panels and Cabinets	NONE	MSC
C-08	GENERATOR AUXILLARY POWER BENCH BOARD	(20) Instrumentation and Control Panels and Cabinets	NONE	MSC
C-121	JET PUMP INSTRUMENT RACK	(18) Instruments on Racks	3	REC
C-122	JET PUMP INSTRUMENT RACK	(18) Instruments on Racks	3	REC
C-129A	RHR INSTRUMENT RACK	(18) Instruments on Racks	3, 4, 5	RHR
C-129B	RHR INSTRUMENT RACK	(18) Instruments on Racks	3, 4, 5	RHR
C-15	CHANNEL A PRIMARY ISOL AND RPS VERTICAL BOARD	(20) Instrumentation and Control Panels and Cabinets	1, 3, 5	PPS
C-17	CHANNEL B ISOL AND RPS VERTICAL BOARD	(20) Instrumentation and Control Panels and Cabinets	1, 3, 5	PPS
C-18	FEEDWATER AND RECIRCULATION	(20) Instrumentation and Control Panels and Cabinets	NONE	CFW
C-19	PROCESS INSTRUMENT VERTICAL BOARD	(20) Instrumentation and Control Panels and Cabinets	NONE	CMP
C-20	TURBINE PLANT INSTRUMENT VERTICAL BOARD	(20) Instrumentation and Control Panels and Cabinets	NONE	MSC
C-21	NUCLEAR STEAM SUPPLY TEMPERATURE RECORDING	(20) Instrumentation and Control Panels and Cabinets	NONE	RPV
C-242	EFT NON-1E PANEL	(20) Instrumentation and Control Panels and Cabinets	NONE	EFT
C-243A	EFT FLOW CONTROLLERS PANEL DIV I	(20) Instrumentation and Control Panels and Cabinets	NONE	EFT
C-244B	EFT FLOW CONTROLLERS PANEL DIV II	(20) Instrumentation and Control Panels and Cabinets	NONE	EFT
C-253A	SRV Panel	(20) Instrumentation and Control Panels and Cabinets	2	APR

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
C-253B	SRV Panel	(20) Instrumentation and Control Panels and Cabinets	2	APR
C-253D	DIV II LOLO SET BYPASS PANEL	(20) Instrumentation and Control Panels and Cabinets	2	APR
C-27	RPIS CABINET C-27	(20) Instrumentation and Control Panels and Cabinets	NONE	RPI
C-289A	SPOTMOS PANEL	(20) Instrumentation and Control Panels and Cabinets	NONE	PCT
C-289B	SPOTMOS PANEL	(20) Instrumentation and Control Panels and Cabinets	NONE	PCT
C-290A	SRV BLOWDOWN INST PANEL	(18) Instruments on Racks	2, 3	APR
C-290B	SRV BLOWDOWN INST PANEL	(18) Instruments on Racks	2, 3	APR
C-292	ASDS BENCHBOARD	(20) Instrumentation and Control Panels and Cabinets	1, 2, 3, 4, 5	ASD
C-292	INSTRUMENT RACK	(18) Instruments on Racks	1, 2, 3, 5	ASD
C-293	ASDS RELAY PANEL	(20) Instrumentation and Control Panels and Cabinets	1, 2, 3, 5	ASD
C-30	RCIC CABLE SPR RM CONTROL PANEL	(20) Instrumentation and Control Panels and Cabinets	3	RCI
C-303A	ECCS DIV I ANALOG TRIP SYSTEM	(20) Instrumentation and Control Panels and Cabinets	3	PPS
C-303B	ECCS DIV II ANALOG TRIP SYSTEM	(20) Instrumentation and Control Panels and Cabinets	3	PPS
C-304A	RPS-A1 AND ISOLATION ANALOG TRIP UNIT	(20) Instrumentation and Control Panels and Cabinets	1, 5	PPS
C-304B	RPS-B1 AND ISOLATION ANALOG TRIP UNIT	(20) Instrumentation and Control Panels and Cabinets	1,5	PPS
C-304C	RPS-A2 AND ISOLATION ANALOG TRIP UNIT	(20) Instrumentation and Control Panels and Cabinets	1, 5	PPS
C-304D	RPS-B2 AND ISOLATION ANALOG TRIP UNIT	(20) Instrumentation and Control Panels and Cabinets	1, 5	PPS

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
C-311	SRV BACKUP AIR SUPPLY	(20) Instrumentation and Control Panels and Cabinets	2, 3	APR
C-32	A RHR, CORE SPRAY, ADS CONTROL PANEL	(20) Instrumentation and Control Panels and Cabinets	2, 3, 5	RHR
C-33	B RHR, CORE SPRAY, ADS CONTROL PANEL	(20) Instrumentation and Control Panels and Cabinets	2, 3, 5	RHR
C-39	HPCI RELAY PANEL	(20) Instrumentation and Control Panels and Cabinets	3	HPC
C-41	INBOARD ISOLATION RELAY PANEL	(20) Instrumentation and Control Panels and Cabinets	3, 5	PPS
C-42	OUTBOARD ISOLATION RELAY PANEL	(20) Instrumentation and Control Panels and Cabinets	3, 5	PPS
C-55	RX LEVEL & PRESSURE RACK	(18) Instruments on Racks	1, 2, 3, 5	RPV
C-56	RX LEVEL & PRESSURE RACK	(18) Instruments on Racks	1, 2, 3, 5	RPV
C-65	Fuel Pool Vent Control Panel	(20) Instrumentation and Control Panels and Cabinets	NONE	HTV
C-88	Fuel Pool Control Panel	(20) Instrumentation and Control Panels and Cabinets	NONE	FPC
C-91	11 DIESEL GEN ELECTRICAL	(20) Instrumentation and Control Panels and Cabinets	1, 3, 4, 5	DGN
C-92	12 DIESEL GEN ELECTRICAL	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	DGN
C-93	11 DIESEL GEN CONTROL	(20) Instrumentation and Control Panels and Cabinets	1, 3, 4, 5	DGN
C-94	12 DIESEL GEN CONTROL	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	DGN
CRD HCU E	CRD HYDRALIC CONTROL UNITS EAST SIDE	(18) Instruments on Racks	1	CRD
CRD HCU E FV	CRD HYDRALIC CONTROL UNITS EAST SIDE	(07) Fluid-Operated Valves	1	CRD

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
CRD HCU W	CRD HYDRALIC CONTROL UNITS WEST SIDE	(18) Instruments on Racks	1	CRD
CRD HCU W FV	CRD HYDRALIC CONTROL UNITS WEST SIDE	(07) Fluid-Operated Valves	1	CRD
CRD16A	SCRAM DISCHARGE VOLUME	(21) Tanks and Heat Exchangers	1, 3	CRD
CRD16B	SCRAM DISCHARGE VOLUME	(21) Tanks and Heat Exchangers	1, 3	CRD
CV-1728	11 RHR HX RHRSW OUTLET	(07) Fluid-Operated Valves	4, 5	RSW
CV-1729	12 RHR HX RHRSW OUTLET	(07) Fluid-Operated Valves	4, 5	RSW
CV-1994	11 RHR PUMP MINIMUM FLOW	(07) Fluid-Operated Valves	3, 4, 5	RHR
CV-1995	12 RHR PUMP MINIMUM FLOW	(07) Fluid-Operated Valves	3, 4, 5	RHR
CV-1996	13 RHR PUMP MINIMUM FLOW	(07) Fluid-Operated Valves	3, 4, 5	RHR
CV-1997	14 RHR PUMP MINIMUM FLOW	(07) Fluid-Operated Valves	3, 4, 5	RHR
CV-2043	HPCI STEAM LINE DRAIN TRAP BYPASS	(07) Fluid-Operated Valves	3	HPC
CV-2046A	STEAM LINE DRN TO MAIN CDSR	(07) Fluid-Operated Valves	3	HPC
CV-2046B	STEAM LINE DRN TO MAIN CDSR	(07) Fluid-Operated Valves	3	HPC
CV-2369	FLANGE LEAK OFF CONTROL VALVE	(07) Fluid-Operated Valves	3	RPV
CV-2370	FLANGE LEAK OFF CONTROL VALVE	(07) Fluid-Operated Valves	3	RPV
CV-2371	REACTOR HEAD VENT TO CRW	(07) Fluid-Operated Valves	3	RPV
CV-3-32A	WEST SDV VENT	(07) Fluid-Operated Valves	1, 3	CRH
CV-3-32B	EAST SDV VENT	(07) Fluid-Operated Valves	1, 3	CRH
CV-3-32C	WEST SDV VENT	(07) Fluid-Operated Valves	1, 3	CRH
CV-3-32D	EAST SDV VENT	(07) Fluid-Operated Valves	1, 3	CRH

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
CV-3-33A	SCRAM DISCHARGE VOLUME DRAIN LINES	(07) Fluid-Operated Valves	1, 3	CRH
CV-3-33B	SCRAM DISCHARGE VOLUME DRAIN LINES	(07) Fluid-Operated Valves	1, 3	CRH
CV-3-33C	WEST SDV DRAIN	(07) Fluid-Operated Valves	1, 3	CRH
CV-3-33D	EAST SDV DRAIN	(07) Fluid-Operated Valves	1, 3	CRH
D1	#11 BATTERY 125VDC	(15) Batteries on Racks	1, 2, 3, 4, 5	125
D10	125 VDC CHARGER FOR #11 BATT	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	125
D100	DIV 2 125/250 VDC DISTRIBUTION PANEL	(14) Distribution Panels	1, 2, 3, 4, 5	250
D101	DIV 2 125/250 VDC ALARM SYSTEM PANEL	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	250
D102	DIV 1 125/250 VDC ALARM SYSTEM PANEL	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	250
D11	DIV I 125VDC DISTRIBUTION CENTER	(14) Distribution Panels	1, 2, 3, 4, 5	125
D111	DIV II 125 VDC PANEL	(14) Distribution Panels	3, 4, 5	125
D2	#12 BATTERY 125VDC	(15) Batteries on Racks	3, 4, 5	125
D20	125 VDC Charger	(16) Battery Chargers and Inverters	3, 4, 5	125
D21	DIV I 125 VDC DISTRIBUTION PANEL	(14) Distribution Panels	3, 4, 5	125
D211	DIV II 125 VDC PANEL	(14) Distribution Panels	3, 4, 5	125
D31	DIV I 125/250 VDC DISTRIBUTION PANEL	(14) Distribution Panels	1, 2, 3, 4, 5	250
D33	125 VDC DISTRIBUTION CENTER	(14) Distribution Panels	3, 4, 5	125
D3A	#13 (DIV 1) 125/250VDC BATTERY "A"	(15) Batteries on Racks	1, 2, 3, 4, 5	250
D3B	#13 (DIV 1) 125/250VDC BATTERY "B"	(15) Batteries on Racks	1, 2, 3, 4, 5	250

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
D40	125 VDC Charger	(16) Battery Chargers and Inverters	3, 4, 5	125
D52	CHARGER, D3A (13) BATTERY	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	250
D53	CHARGER, D3B (13) BATTERY	(16) Battery Chargers and Inverters	3, 4, 5	250
D54	CHARGER, SWING D3A,D3B (13) BATTERY	(16) Battery Chargers and Inverters	3, 4, 5	250
D6A	#16 (DIV 2) 125/250VDC BATTERY "A"	(15) Batteries on Racks	3, 4, 5	250
D6B	#16 (DIV 2) 125/250VDC BATTERY "B"	(15) Batteries on Racks	3, 4, 5	250
D70	CHARGER, D6B (16) BATTERY	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	250
D80	CHARGER, D6A (16) BATTERY	(16) Battery Chargers and Inverters	3, 4, 5	250
D90	CHARGER, SWING D6A,D6B (16)BATTERY	(16) Battery Chargers and Inverters	3, 4, 5	250
DM-8089A1	V-SF-9 SUPPLY DAMPER	(10) Air Handlers	1, 3, 4, 5	HTV
DM-8089A2	V-SF-9 SUPPLY DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089A3	V-SF-9 SUPPLY DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089B1	V-SF-9 EXHAUST DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089B2	V-SF-9 EXHAUST DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089J1	V-SF-10 SUPPLY DAMPER	(10) Air Handlers	1, 3, 4, 5	HTV
DM-8089J2	V-SF-10 SUPPLY DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089J3	V-SF-10 SUPPLY DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089K1	V-SF-10 EXHAUST DAMPER	(10) Air Handlers	3, 4, 5	HTV
DM-8089K2	V-SF-10 EXHAUST DAMPER	(10) Air Handlers	3, 4, 5	HTV

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
DPT-10-91A	11 RHR HX TUBE/SHELL DP CONTROL	(18) Instruments on Racks	4, 5	RSW
DPT-10-91B	HR HX 12 TUBE/SHELL DP CONTROL	(18) Instruments on Racks	4, 5	RSW
DPT-7845A	RHR 11 PUMP D/P	(18) Instruments on Racks	NONE	RHR
DPT-7845C	RHR 13 PUMP D/P	(18) Instruments on Racks	NONE	RHR
E-200A	11 RHR HEAT EXCHANGER	(21) Tanks and Heat Exchangers	4, 5	RHR
E-200B	RHR/ RHR B HXER	(21) Tanks and Heat Exchangers	4, 5	RHR
FE-10-121C	RHR PUMP 13 MIN FLOW ELEMENT	(00) Other	3, 4, 5	RHR
FI-10-136B	FLOW INDICATOR RHR	(18) Instruments on Racks	NONE	RHR
FI-14-50B	CS LOOP 12 FLOW	(18) Instruments on Racks	NONE	CSP
FI-4104	CORE SPRAY FLOW B	(18) Instruments on Racks	NONE	CSP
FI-4295B	14 ESW PUMP EFT-ESW HEADER FLOW INDICATOR	(18) Instruments on Racks	NONE	RSW
FMT-1 (DG-12)	12 DG FUEL TRANSFER PUMP #1	(05) Horizontal Pumps	3, 4, 5	DGN
FMT-2 (DG-11)	11 DG FUEL TRANSFER PUMP #2	(05) Horizontal Pumps	3, 4, 5	DGN
FMT-2 (DG-12)	12 DG FUEL TRANSFER PUMP #2	(05) Horizontal Pumps	3, 4, 5	DGN
FT-10-109B	RHR/ RHR B LPCI INJ FLOW	(18) Instruments on Racks	NONE	RHR
FT-10-111A	RHR LOOP A CONT COOLING FLOW	(18) Instruments on Racks	NONE	RHR
FT-10-97A	RHR HX 11 SW INLET FLOW	(18) Instruments on Racks	NONE	RSW
FT-10-97B	RHR HX 12 SW INLET FLOW	(18) Instruments on Racks	NONE	RSW
FT-14-40B	CS LOOP 12 FLOW	(00) Other	NONE	CSP
FT-23-82	HPCI PUMP FLOW TRANSMITTER	(18) Instruments on Racks	3	HPC
FT-6-51A	FW MST FLOW "A" TO LVL CONTROL	(18) Instruments on Racks	NONE	RLC

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
FT-6-51B	FW MST FLOW "B" TO LVL CONTROL	(18) Instruments on Racks	3, 5	RLC
FT-6-51C	FW MST FLOW "C" TO LVL CONTROL	(18) Instruments on Racks	3, 5	RLC
FT-6-51D	FW MST FLOW "D" TO LVL CONTROL	(18) Instruments on Racks	NONE	RLC
FY-4106	RHR CONTAINMENT COOLING FLOW	(18) Instruments on Racks	NONE	RHR
G31	#11 DG NEUTRAL GROUNDING CABINET	(04) Transformers	1, 3, 4, 5	DGN
G-3A	11 EMERGENCY DIESEL GENERATOR	(17) Engine-Generators	1, 3, 4, 5	DGN
G-3B	12 EMERGENCY DIESEL GENERATOR	(17) Engine-Generators	1, 3, 4, 5	DGN
G41	#12 DG NEUTRAL GROUNDING CABINET	(04) Transformers	3, 4, 5	DGN
IR-5A-K30A	RACK FOR 5A-K30A & 5A-K30B RELAYS	(18) Instruments on Racks	1	PPS
IR-DPT-7845A	RHR 11/13 PUMP D/P RACK	(18) Instruments on Racks	NONE	RHR
IR-FS-10-121A	RHR PUMP 11 MIN FLOW CONTROL RACK	(18) Instruments on Racks	3, 4, 5	RHR
IR-FS-10-121B	RHR PUMP 12 MIN FLOW CONTROL RACK	(18) Instruments on Racks	3, 4, 5	RHR
IR-FT-10-111A	RHR LOOP A CONT COOLING FLOW INSTR RACK	(18) Instruments on Racks	NONE	RHR
IR-LS-7428A	SDV WATER LEVEL HI RACK	(18) Instruments on Racks	1, 3, 5	CRH
IR-LS-7428C	SDV WATER LEVEL HI RACK	(18) Instruments on Racks	1, 3, 5	CRH
IR-PCV-4879	ALT N2 A RACK	(18) Instruments on Racks	2, 5	AN2
IR-PCV-4881	ALT N2 B RACK	(18) Instruments on Racks	2, 5	AN2
IR-PI-3051	TORUS INSTRUMENT RACK	(18) Instruments on Racks	5	PCT
IR-RB1001-01	Fuel Pool Instrument Rack	(18) Instruments on Racks	NONE	FPC

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
IR-SV-3-29	EAST/WEST SDV VENT/DRN VLVS AIR SUPPLY SOL VLV RACK	(18) Instruments on Racks	3, 5	CRH
IR-SV-3-31C	OUTBOARD VENT/AR RPS CH A RACK	(18) Instruments on Racks	1, 3, 5	CRH
J1010	SECURITY JUNCTION BOX	(14) Distribution Panels	NONE	SIN
J1012	SECURITY JUNCTION BOX	(14) Distribution Panels	NONE	SIN
J1013	SECURITY JUNCTION BOX	(14) Distribution Panels	NONE	SIN
K-10A	RHRSW AUX AIR COMP	(12) Air Compressors	4, 5	RSW
K-10B	B RHR AUX AIR COMPRESSOR	(12) Air Compressors	4, 5	RSW
K-8A	11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	(12) Air Compressors	1, 3, 4, 5	DGN
K-8B	11 ELECTRIC AIR STARTER COMPRESSOR #2	(12) Air Compressors	1, 3, 4, 5	DGN
K-9A	12 ELECTRIC AIR STARTER COMPRESSOR #1	(12) Air Compressors	3, 4, 5	DGN
K-9B	12 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #2	(12) Air Compressors	3, 4, 5	DGN
LC-103	480 V LOAD CENTER	(02) Low Voltage Switchgear	1, 3, 4, 5	480
LC-104	480 V LOAD CENTER	(02) Low Voltage Switchgear	1, 3, 4, 5	480
LT-2-3-72A	LO LO REACTOR LVL ECCS INITIATION	(18) Instruments on Racks	2, 3	RPV
LT-2-3-72B	LO LO REACTOR LVL ECCS INITIATION	(18) Instruments on Racks	2, 3	RPV
LT-2-3-72C	LO LO REACTOR LVL ECCS INITIATION	(18) Instruments on Racks	2, 3	RPV
LT-2-3-72D	LO LO REACTOR LVL ECCS INITIATION	(18) Instruments on Racks	2, 3	RPV
LT-2996	TORUS WATER LEVEL	(18) Instruments on Racks	5	PCT
LT-7338A	TORUS WIDE RANGE LEVEL	(18) Instruments on Racks	NONE	PCT
LT-7338B	TORUS WIDE RANGE LEVEL	(18) Instruments on Racks	NONE	PCT

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
MCC-133A	480 V MCC (B33A)	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-133B	480V MCC	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-134	480 V MCC (B34)	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-142A	480 V MCC (B42A)	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-142B	480V MCC	(01) Motor Control Centers	NONE	480
MCC-143A	480 V MCC (B43A)	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-143B	480V MCC	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-144	480 V MCC (B44)	(01) Motor Control Centers	1, 3, 4, 5	480
MCC-311	DIV 1 (RCIC) 250V DC MOTOR CONTROL CENTER 311	(01) Motor Control Centers	3	250
MCC-312	DIV 2 (HPCI) 250V DC MOTOR CONTROL CENTER 312	(01) Motor Control Centers	3	250
MCC-313	DIV 1 250V DC MOTOR CONTROL CENTER 313	(01) Motor Control Centers	2, 3, 5	250
MO-1741	11 CS PUMP TORUS SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1742	12 CS PUMP TORUS SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1749	11 CORE SPRAY TEST LINE TO TORUS	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1750	12 CS TEST LINE TO TORUS	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1751	11 CS INJ OUTBOARD ISOLATION VLV	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1752	12 CS INJ OUTBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1753	11 CS INJ INBOARD ISOLATION VLV	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
MO-1754	12 CS INJ INBOARD ISOLATION VALVE	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP
MO-1986	11 RHR SUCTION FROM TORUS	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	RHR
MO-1987	B RHR/ TORUS SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	RHR
MO-1988	11 RHR SHUTDOWN COOLING SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	4	RHR
MO-1989	RHR/ B SDC SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	4	RHR
MO-2002	11 RHR HX BYPASS	(08) Motor-Operated and Solenoid-Operated Valves	3	RHR
MO-2003	RHR/RHR B HXER BYPASS	(08) Motor-Operated and Solenoid-Operated Valves	3	RHR
MO-2006	11 RHR DISCHARGE TO TORUS	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2007	RHR/RHR B DISCH TO TORUS	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2008	TORUS COOLING ISOL	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2009	RHR/ RHR B TORUS COOLING TEST RTN	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2010	TORUS SPRAY VLV	(08) Motor-Operated and Solenoid-Operated Valves	4, 5	RHR
MO-2011	RHR/ RHR B TORUS SPRAY INJ	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2012	11 RHR LPCI OUTBOARD INJECTION	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR
MO-2013	RHR/RHR B LPCI INJ OUTBD	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR
MO-2014	11 RHR LPCI INBOARD INJECTION	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
MO-2015	RHR B LPCI INJ INBOARD	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR
MO-2020	11 RHR CONTAINMENT SPRAY OUTBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2021	"B" RHR CTMT SPRAY OUTBD ISOL	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2026	RHR HEAD SPRAY OUTBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	4	RHR
MO-2030	RHR SHUTDOWN COOLING SUPPLY OUTBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR
MO-2032	RHR DISCHARGE TO WASTE SURGE TANK	(08) Motor-Operated and Solenoid-Operated Valves	5	RHR
MO-2033	RHR LOOPS CROSSTIE	(08) Motor-Operated and Solenoid-Operated Valves	3	RHR
MO-2034	HPCI INBOARD STEAM SUPPLY	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	HPC
MO-2035	HPCI OUTBOARD STEAM SUPPLY ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	HPC
MO-2063	HPCI CST SUCT	(08) Motor-Operated and Solenoid-Operated Valves	3	HPC
MO-2075	RCIC STEAM SUPPLY INBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	RCI
MO-2076	RCIC STEAM SUPPLY OUTBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	RCI
MO-2078	RCIC TURBINE STEAM SUPPLY	(08) Motor-Operated and Solenoid-Operated Valves	3	RCI
MO-2106	RCIC PUMP DISCHARGE OUTBOARD	(08) Motor-Operated and Solenoid-Operated Valves	3	RCI
MO-2373	INBD MS LINE DRN UPSTREAM MSIVS	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	MST
MO-2374	MAIN STEAM LINE DRAIN - OUTBOARD	(08) Motor-Operated and Solenoid-Operated Valves	2, 3, 5	MST

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
MO-2397	RWCU INLET INBOARD ISOL	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	RWC
MO-2398	RWCU INLET OUTBOARD ISOL	(08) Motor-Operated and Solenoid-Operated Valves	3, 5	RWC
MO-2-43A	11 RECIRC PUMP SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	3	REC
MO-2-43B	12 RECIRC PUMP SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	3	REC
MO-2-53A	11 RECIRC PUMP DISCHARGE	(08) Motor-Operated and Solenoid-Operated Valves	3	REC
MO-2-53B	12 RECIRC PUMP DISCHARGE	(08) Motor-Operated and Solenoid-Operated Valves	3	REC
N3346A	11 EDG AIR CMPSR 1 (K-8A) LOCAL DISCONNECT SWITCH	(20) Instrumentation and Control Panels and Cabinets	1,3, 4, 5	DGN
N3346B	12 EDG AIR CMPSR 2 (K-9B) LOCAL DISCONNECT SWITCH	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	DGN
N3347	MOTOR STARTER FOR K-10A	(20) Instrumentation and Control Panels and Cabinets	4, 5	DGN
N4301A	11 EDG AIR CMPSR 2 (K-8B) LOCAL DISCONNECT SWITCH	(20) Instrumentation and Control Panels and Cabinets	1, 3, 4, 5	DGN
N4301B	12 EDG AIR CMPSR 1 (K-9A) LOCAL DISCONNECT SWITCH	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	DGN
N4454	MOTOR STARTER FOR K-10B	(20) Instrumentation and Control Panels and Cabinets	3, 4, 5	DGN
P-109A	11 RHR SW PUMP	(06) Vertical Pumps	4, 5	RSW
P-109B	12 RHR SW PUMP	(06) Vertical Pumps	4	RSW
P-109C	13 RHR SW PUMP	(06) Vertical Pumps	4	RSW
P-109D	14 RHR SW PUMP	(06) Vertical Pumps	4	RSW
P-11	DIESEL OIL XFER PUMP	(05) Horizontal Pumps	1, 3, 4, 5	DOL

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
P-111A	11 ESW (EDG-ESW) PUMP	(06) Vertical Pumps	1, 3, 4, 5	ESW
P-111B	12 ESW (EDG-ESW) PUMP	(06) Vertical Pumps	3, 4, 5	ESW
P-111C	13 ESW (EDG-ESW) PUMP	(06) Vertical Pumps	3, 4, 5	FSW
P-111D	14 ESW (EDG-ESW) PUMP	(06) Vertical Pumps	3, 4, 5	FSW
P-202A	11 RHR PUMP	(06) Vertical Pumps	3, 4, 5	RHR
P-202B	RHR/ RHR B PUMP # 12	(06) Vertical Pumps	3, 4, 5	RHR
P-202C	13 RHR PUMP	(06) Vertical Pumps	3, 4, 5	RHR
P-202D	RHR/ RHR D PUMP # 14	(06) Vertical Pumps	3, 4, 5	RHR
P-203A	11 SBLC Pump	(05) Horizontal Pumps	1	SLC
P-208A	11 CORE SPRAY PUMP	(06) Vertical Pumps	3	CSP
P-208B	12 CORE SPRAY PUMP	(06) Vertical Pumps	3	CSP
P-209	HPCI PUMP	(05) Horizontal Pumps	3	HPC
P-222A	11 DG FUEL TRANSFER PUMP #1	(05) Horizontal Pumps	1, 3, 4, 5	DGN
P-73A	480V POWER PANEL	(14) Distribution Panels	4, 5	480
P-88A	ECCS AREA DRAIN PUMP	(06) Vertical Pumps	3, 4, 5	LRW
P-88B	ECCS AREA DRAIN PUMP	(06) Vertical Pumps	3, 4, 5	LRW
P-88C	ECCS AREA DRAIN PUMP	(06) Vertical Pumps	3, 4, 5	LRW
P-88D	ECCS AREA DRAIN PUMP	(06) Vertical Pumps	3, 4, 5	LRW
PCV-3004	11/13 RHRWSW PUMP MOTORS COOLING WATER HEADER INLET	(07) Fluid-Operated Valves	3, 4, 5	RSW
PCV-3005	12/14 RHRSW PUMP MOTORS COOLING HEADER INLET	(07) Fluid-Operated Valves	3, 4, 5	RSW
PCV-4879	ALT N2 A	(18) Instruments on Racks	2, 5	AN2

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
PCV-4881	ALT N2 B	(18) Instruments on Racks	2, 5	AN2
PCV-4897	ALT N2 A	(18) Instruments on Racks	2, 5	AN2
PCV-4898	ALT N2 B	(18) Instruments on Racks	2, 5	AN2
PCV-4903	ALT N2 A	(18) Instruments on Racks	2, 5	AN2
PCV-4904	ALT N2 A	(18) Instruments on Racks	2, 5	AN2
PCV-4905	ALT N2 B	(18) Instruments on Racks	2, 5	AN2
PCV-4906	ALT N2 B	(18) Instruments on Racks	2, 5	AN2
PS-23-97A	HPCI HI TURB EXH PRESS TURB TRIP	(18) Instruments on Racks	3	HPC
PSX5	X PAGE 5 VOLT POWER SUPPLY RPIS	(16) Battery Chargers and Inverters	NONE	RPI
PSX6	X PAGE 6 VOLT POWER SUPPLY RPIS	(16) Battery Chargers and Inverters	NONE	RPI
PSY5	Y PAGE 5 VOLT POWER SUPPLY RPIS	(16) Battery Chargers and Inverters	NONE	RPI
PSY6	Y PAGE 6 VOLT POWER SUPPLY RPIS	(16) Battery Chargers and Inverters	NONE	RPI
PT-14-38B	CS PUMP 12 DISCHARGE PRESSURE	(18) Instruments on Racks	3	CSP
PT-2994A	DW PRESS NARROW RANGE	(18) Instruments on Racks	NONE	PCT
PT-2994B	TORUS PRESSURE NARROW RANGE	(18) Instruments on Racks	NONE	PCT
PT-4022	EFT-ESW SYSTEM PRESSURE	(18) Instruments on Racks	NONE	PCT
PT-7251A	DW WIDE RANGE PRES	(18) Instruments on Racks	NONE	PCT
PT-7251B	DRYWELL WIDE RANGE PRESS	(18) Instruments on Racks	NONE	PCT
RV-1523	XFER PUMP DISCHARGE RELIEF VALVE	(07) Fluid-Operated Valves	3, 4, 5	DOL
RV-1524	XFER PUMP DISCHARGE RELIEF VALVE	(07) Fluid-Operated Valves	3, 4, 5	DOL

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
RV-1745	11 CS PUMP DISCH RV TO ORW	(07) Fluid-Operated Valves	3	CSP
RV-1746	12 CS PUMP DISCH RV TO ORW	(07) Fluid-Operated Valves	3	CSP
RV-1990	RHR 11 PUMP SUCTION RV	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-1991	RHR/ RHR B PUMP SUCTION RELIEF	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-1992	RHR 13 PUMP SUCTION RV	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-1993	RHR/ RHR D PUMP SUCTION RELIEF	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-2004	RHR LOOP A DISCHARGE LINE RV	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-2005	RHR LOOP B DISCHARGE LINE RV	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-2025	RHR HEAD SPRAY LINE RV	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-2031	SD COOLING SUCTION SUPPLY	(07) Fluid-Operated Valves	4	RHR
RV-2-71A	A SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71B	B SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71C	C SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71D	D SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71E	E SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71F	F SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71G	G SRV	(07) Fluid-Operated Valves	2	APR
RV-2-71H	H SRV	(07) Fluid-Operated Valves	2	APR
RV-3038	11 LOOP MOTOR COOLING HEADER	(07) Fluid-Operated Valves	4, 5	RSW
RV-3039	12/14 LOOP MOTOR COOLING HEADER	(07) Fluid-Operated Valves	4, 5	RSW
RV-3202	11 HX TUBE SIDE	(07) Fluid-Operated Valves	4, 5	RSW

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
RV-3203	12 HX TUBE SIDE	(07) Fluid-Operated Valves	4, 5	RSW
RV-3216	11 DG AIR TK T-79A RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3217	11 DG AIR TK T-79B RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3218	11 DG AIR TK T-79C RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3219	11 DG AIR TK T-79D RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3220	11 DG AIR TK T-79E RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3221	11 DG AIR TK T-79F RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3222	DIESEL AIR START COMPRESSOR (K-8A)	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3223	DIESEL AIR START COMPRESSOR (K-8B)	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3224	12 DG AIR TK T-80A RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3225	12 DG AIR TK T-80B RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3226	12 DG AIR TK T-80C RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3227	12 DG AIR TK T-80D RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3228	12 DG AIR TK T-80E RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3229	12 DG AIR TK T-80F RV	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3230	DIESEL AIR START COMPRESSOR (K-9A)	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3231	DIESEL AIR START COMPRESSOR (K-9B)	(07) Fluid-Operated Valves	3, 4, 5	DGN
RV-3242	A SRV DISCHARE 2 VAC RV	(07) Fluid-Operated Valves	2	MST
RV-3242A	A SRV DISCHARGE 8 VAC RV	(07) Fluid-Operated Valves	2	MST
RV-3243	B SRV DISCHARGE 2" VAC RV	(07) Fluid-Operated Valves	2	MST

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
RV-3243A	B SRV DISCHARGE 8" VAC RV	(07) Fluid-Operated Valves	2	MST
RV-3244	C SRV DISCHARGE 2 VAC	(07) Fluid-Operated Valves	2	MST
RV-3244A	C SRV DISCHARGE 8 VAC	(07) Fluid-Operated Valves	2	MST
RV-3245	D SRV DISCHARGE 2 VAC	(07) Fluid-Operated Valves	2	MST
RV-3245A	D SRV DISCHARGE 8 VAC	(07) Fluid-Operated Valves	2	MST
RV-4236	ALT N2 B RELIEF	(07) Fluid-Operated Valves	2, 5	AN2
RV-4281	A RHR HX RV SHELL SIDE	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-4282	RHR/RHR B HXER RELIEF VALVE	(07) Fluid-Operated Valves	3, 4, 5	RHR
RV-4673	ALT N2 A RELIEF	(07) Fluid-Operated Valves	2, 5	AN2
RV-4878	ALT N2 A RELIEF	(07) Fluid-Operated Valves	2, 5	AN2
RV-4880	ALT N2 B RELIEF	(07) Fluid-Operated Valves	2, 5	AN2
RV-7440	E SRV DISCHARGE 2 VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7440A	E SRV DISCHARGE 8" VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7441	F SRV DISCHARGE 2" VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7441A	F SRV DISCHARGE 8" VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7467	G SRV DISCHARGE 2 VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7467A	G SRV DISCHARGE 8" VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7468	H SRV DISCHARGE 2" VAC RV	(07) Fluid-Operated Valves	2	MST
RV-7468A	H SRV DISCHARGE 8" VAC RV	(07) Fluid-Operated Valves	2	MST
SV-1728	CV-1728 (11 RHR HX RHRSW OUTLET)SV	(08) Motor-Operated and Solenoid-Operated Valves	4, 5	RSW
SV-1729	SV FOR CV-1729 #12 RHR HX RHRSW OUT	(08) Motor-Operated and Solenoid-Operated Valves	4, 5	RSW

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
SV-1994	SV FOR CV-1994 #11 RHR MINIMUM FLOW	(08) Motor-Operated and Solenoid-Operated Valves	3, 4, 5	RHR
SV-1995	SV FOR CV-1995 #12 RHR MIN FLOW	(08) Motor-Operated and Solenoid-Operated Valves	3, 4, 5	RHR
SV-1996	SV FOR CV-1996 #13 RHR MINIMUM FLOW	(08) Motor-Operated and Solenoid-Operated Valves	3, 4, 5	RHR
SV-1997	SV FOR CV-1997 #14 RHR MIN FLOW	(08) Motor-Operated and Solenoid-Operated Valves	3, 4, 5	RHR
SV-2-2-11A	11 RECIRC PUMP SEAL LEAKOFF	(08) Motor-Operated and Solenoid-Operated Valves	3	REC
SV-2-2-11B	12 RECIRC PUMP SEAL LEAKOFF	(08) Motor-Operated and Solenoid-Operated Valves	3	REC
SV-2-32A	A SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32B	B SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32C	C SRV BELLOWS LEAK TEST SV	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32D	D SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32E	E SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32F	F SRV BELLOWS LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32G	G SRV BELLOWS LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-32H	H SRV BELLOWS LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33A	A SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33B	B SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
SV-2-33C	C SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33D	D SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33E	E SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33F	F SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33G	G SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-33H	H SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34A	A SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34B	B SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34C	C SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34D	D SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34E	E SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34F	F SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34G	G SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-34H	H SRV BELLOW LEAK TEST	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2369	FLANGE LEAK OFF CONTROL VALVE	(08) Motor-Operated and Solenoid-Operated Valves	3	RPV
SV-2370	FLANGE LEAK OFF CONTROL VALVE	(08) Motor-Operated and Solenoid-Operated Valves	3	RPV

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
SV-2371	REACTOR HEAD VENT TO CRW	(08) Motor-Operated and Solenoid-Operated Valves	3	RPV
SV-2379	ALT N2 A SPLY TO AO-2379	(08) Motor-Operated and Solenoid-Operated Valves	5	PCT
SV-2380	ALT N2 A SUPPLY TO AO-2380	(08) Motor-Operated and Solenoid-Operated Valves	5	PCT
SV-2-71A	A SRV ALT N2 A A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71B	B SRV PILOT	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71C	C SRV ALT N2 B SUPPLY	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71D	D SRV PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71E	E SRV ALT N2 A A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71F	F SRV PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71G	G SRV PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71H	H SRV PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71J	E SRV ALT N2 A A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71K	G SRV PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71L	H SRV PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-2-71M	F SRV ASDS PILOT A/S	(08) Motor-Operated and Solenoid-Operated Valves	2	APR
SV-3-29	EAST/WEST SDV VENT/DRN VLVS AIR SUPPLY SOL VLV	(08) Motor-Operated and Solenoid-Operated Valves	1, 3	CRH

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
SV-3-31A	INBOARD VENT/DR RPS CH A	(08) Motor-Operated and Solenoid-Operated Valves	1, 3	CRH
SV-3-31B	INBOARD VENT/DR RPS CH B	(08) Motor-Operated and Solenoid-Operated Valves	1, 3	CRH
SV-3-31C	OUTBOARD VENT/AR RPS CH A	(08) Motor-Operated and Solenoid-Operated Valves	1, 3	CRH
SV-3-31D	OUTBOARD VENT/DR RPS CH B	(08) Motor-Operated and Solenoid-Operated Valves	1, 3	CRH
SV-4014A	LIQ SX RETURN TO A RHR ISOL	(08) Motor-Operated and Solenoid-Operated Valves	NONE	PAS
SV-4015A	A LOOP RHR SAMPLE ISOL	(08) Motor-Operated and Solenoid-Operated Valves	NONE	PAS
SV-4015B	B LOOP RHR SAMPLE ISOL	(08) Motor-Operated and Solenoid-Operated Valves	NONE	PAS
SV-4033A	A CGCS RECMB CLG PMP INL	(08) Motor-Operated and Solenoid-Operated Valves	NONE	PAS
SV-4033B	B CGCS RECOMBINER COOLING PUMP INLET	(08) Motor-Operated and Solenoid-Operated Valves	NONE	CGC
SV-4034A	AGGCS RECMB CLG PMP BYPASS	(08) Motor-Operated and Solenoid-Operated Valves	NONE	CGC
SV-4034B	B CGCS RECOMBINER COOLING PUMP BYPASS	(08) Motor-Operated and Solenoid-Operated Valves	NONE	CGC
SV-4234	ALT N2 A	(08) Motor-Operated and Solenoid-Operated Valves	2, 5	AN2
SV-4235	ALT N2 B MANIFOLD ISOL	(08) Motor-Operated and Solenoid-Operated Valves	2, 5	AN2
SV-4541	INBOARD N2 SUPPLY TO HPV RUPTURE DISC	(08) Motor-Operated and Solenoid-Operated Valves	5	PCT
T-200	Standby Liquid Control Tank	(21) Tanks and Heat Exchangers	1	SLC
T-44	DIESEL OIL STORAGE TANK	(21) Tanks and Heat Exchangers	3, 4, 5	DOL

Table A-1: Monticello Base List 1

Equipment Tag	Description	Class[1]	Safety Function[2]	System[3]
T-45A	STANDBY DIESEL GENERATOR DAY TANK	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DOL
T-45B	STANDBY DIESEL GENERATOR DAY TANK	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DOL
T-48A	Skimmer Surge Tank A	(21) Tanks and Heat Exchangers	NONE	FPC
T-48B	Skimmer Surge Tank B	(21) Tanks and Heat Exchangers	NONE	FPC
T-49A	A MSIV (AO-2-80A) ACCUMULATOR	(21) Tanks and Heat Exchangers	3, 5	MST
T-49B	B MSIV (AO-2-80B) ACCUMLATOR	(21) Tanks and Heat Exchangers	3, 5	MST
T-49C	C MSIV (AO-2-80C) ACCUMULATOR	(21) Tanks and Heat Exchangers	3, 5	MST
T-49D	D MSIV (AO-2-80D) ACCUMULATOR	(21) Tanks and Heat Exchangers	3, 5	MST
T-57A	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57B	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57C	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57D	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57E	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57F	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57G	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR
T-57H	ALT N2 ACCUMULATOR	(21) Tanks and Heat Exchangers	2	APR

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
T-75A	ACCUMULATOR FOR SV-1994	(21) Tanks and Heat Exchangers	3, 4, 5	RHR
T-75B	RHR/ RHR B PUMP MIN FLOW ACCUM	(21) Tanks and Heat Exchangers	3, 4, 5	RHR
T-75C	ACCUMULATOR FOR SV-1996	(21) Tanks and Heat Exchangers	3, 4, 5	RHR
T-75D	RHR/ RHR D PUMP MIN FLOW ACCUM	(21) Tanks and Heat Exchangers	3, 4, 5	RHR
T-79A	11 DG AIR TK A	(21) Tanks and Heat Exchangers	3, 4, 5	DGN
T-79B	11 DG AIR TK B	(21) Tanks and Heat Exchangers	3, 4, 5	DGN
T-79C	11 DG AIR TK C	(21) Tanks and Heat Exchangers	3, 4, 5	DGN
T-79D	11 DG AIR TK D	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DGN
T-79E	11 DG AIR TK E	(21) Tanks and Heat Exchangers	1, 2, 3, 4, 5	DGN
T-79F	11 DG AIR TK F	(21) Tanks and Heat Exchangers	1, 2, 3, 4, 5	DGN
T-80A	12 DG AIR TK A	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DGN
T-80B	12 DG AIR TK B	(21) Tanks and Heat Exchangers	1, 2, 3, 4, 5	DGN
T-80C	12 DG AIR TK C	(21) Tanks and Heat Exchangers	1, 2, 3, 4, 5	DGN
T-80D	12 DG AIR TK D	(21) Tanks and Heat Exchangers	3, 4, 5	DGN
T-80E	12 DG AIR TK E	(21) Tanks and Heat Exchangers	3, 4, 5	DGN
T-80F	12 DG AIR TK F	(21) Tanks and Heat Exchangers	3, 4, 5	DGN

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
T-ALTN2B	ALT N2 B BOTTLE RACK	(21) Tanks and Heat Exchangers	2, 5	AN2
TS-13-79C	RCIC STM LINE HI AREA TEMPERATURE ISOLATION	(19) Temperature Sensors	2, 3, 5	RCI
V-AC-4	RHR B AIR HANDLER	(10) Air Handlers	3, 4, 5	HTV
V-AC-5	RHR A AIR HANDLER	(10) Air Handlers	3, 4, 5	HTV
V-EAC-14A	CRV DIV I HVAC UNIT	(11) Chillers	1, 2, 3, 4, 5	EFT
V-EAC-14B	CRV DIV II HVAC UNIT	(10) Air Handlers	1, 2, 3, 4, 5	EFT
V-EF-40A	DIV II 250VDC BATTERY ROOM VENTILATION	(10) Air Handlers	1, 2, 3, 4, 5	EFT
V-EF-40B	DIV II 250VDC BATTERY ROOM VENTILATION	(10) Air Handlers	1, 2, 3, 4, 5	EFT
V-ERF-14A	CRV DIV I EXHAUST RECIRC FAN	(10) Air Handlers	1, 2, 3, 4, 5	EFT
V-FE-11	DIV 1 EFT CHARCOAL AIR FILTER UNIT	(10) Air Handlers	1, 2, 3, 4, 5	EFT
V-SF-10	11 DIESEL ROOM VENT FAN	(09) Fans	1, 3, 4, 5	HTV
V-SF-9	12 DIESEL ROOM VENT FAN	(09) Fans	1, 3, 4, 5	HTV
X30	TRANSFORMER	(04) Transformers	1, 3, 4, 5	480
X40	TRANSFORMER	(04) Transformers	1,2, 3, 4, 5	480
Y01	11 STANDBY INTRUMENT AC TRANSFORMER	(04) Transformers	NONE	UAC
Y10	DIV 1 CLASS NON-1E UNINT INST 120VAC DIST PANEL	(14) Distribution Panels	NONE	UAC
Y20	NON- 1E INST 120VDC DIST PANEL	(14) Distribution Panels	NONE	UAC
Y21	INSTRUMENT AC TRANSFER SWITCH	(14) Distribution Panels	NONE	UAC
Y22	12 INSTRUMENT AC TRANSFORMER	(04) Transformers	NONE	UAC

Table A-1: Monticello Base List 1				
Equipment Tag	**Description**	**Class[1]**	**Safety Function[2]**	**System[3]**
Y30	DIV 2 CLASS NON-1E UNINT 120VAC INST AC DIST PANEL	(14) Distribution Panels	NONE	UAC
Y70	DIV 1 UNINTERRUPTIBLE 120VAC CLASS 1E DIST PANEL	(14) Distribution Panels	1, 2, 3, 4, 5	UAC
Y71	DIV 1 120VAC CLASS 1E INVERTER	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	UAC
Y72	120 VDC TRANSFORMER FEEDING Y73	(04) Transformers	1, 2, 3, 4, 5	UAC
Y73	ALTERNATE 120VAC TO UPS (Y71)	(14) Distribution Panels	1, 2, 3, 4, 5	UAC
Y74	FUSED DISCONNECT SWITCH TO PANEL Y10	(14) Distribution Panels	NONE	UAC
Y75	FUSED DISCONNECT SWITCH TO PANEL Y70	(14) Distribution Panels	1, 2, 3, 4, 5	UAC
Y77	120-120/240VAC TRANSFORMER TO PANEL Y10	(04) Transformers	NONE	UAC
Y80	DIV 2 UNINTERRUPTIBLE 120VAC CLASS 1E DIST PANEL	(14) Distribution Panels	1, 2, 3, 4, 5	UAC
Y81	DIV 2 120VAC CLASS 1E INVERTER	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	UAC
Y82	DIV 2 120 VDC TRANSFORMER Y83	(04) Transformers	1, 2, 3, 4, 5	UAC
Y83	ALTERNATE 120VAC TO UPS (Y81)	(14) Distribution Panels	1, 2, 3, 4, 5	UAC
Y84	FUSED DISCONNECT SWITCH TO PANEL Y30	(14) Distribution Panels	NONE	UAC
Y85	FUSED DISCONNECT SWITCH TO PANEL Y80	(14) Distribution Panels	1, 2, 3, 4, 5	UAC
Y87	120-120/240VAC TRANSFORMER TO PANEL Y30	(04) Transformers	NONE	UAC

Notes:

1) Class – Class as defined in Appendix B of Reference 1.

2) Safety function – Defined as follows:

1 = Reactor Reactivity Control

2 = Reactor Coolant Pressure Control

3 = Reactor Coolant inventory Control

4 = Decay Heat Removal

5 = Containment Function

3) System – Identifies the system associated with the equipment. The abbreviations for these systems are listed below.

System	Description	System	Description	System	Description
125	125 Volt DC	**DGN**	Emergency Diesel Generators	**PPS**	Plant Protection System
250	250 Volt DC	**DOL**	Diesel Oil System	**RCI**	RX Core Isolation Cooling Sys
480	480 V Station Auxiliary	**EFT**	Emergency Filtration Train	**REC**	RX Recirculation System
4KV	4.16 KV Station Auxiliary	**ESW**	Emergency Diesel Generator-ESW	**RHR**	Residual Heat Removal System
AN2	Alternate N2	**FPC**	Fuel Pool Cooling and Cleanup	**RLC**	RX Level Control
APR	Automatic Press Relief	**FSW**	Emergency Filtration - ESW	**RPI**	Rod Position Information Sys
ASD	Alternate Shutdown System	**HPC**	High Press Coolant Injection	**RPV**	RX Pressure Vessel
CFW	Condensate & Feedwater	**HTV**	Heating & Ventilation	**RSW**	RHR Service Water
CGC	Combustible Gas Control	**LRW**	Liquid Radwaste	**RWC**	RX Water Cleanup
CMP	Computer	**MSC**	Miscellaneous	**SIN**	Security Instrumentation
CRD	Control Rod Drive System	**MST**	Main Steam	**SLC**	Standby Liquid Control
CRH	Control Rod Drive Hydraulic	**PAS**	Post Accident Sampling System	**UAC**	Uninterruptible AC
CSP	Core Spray System	**PCT**	Primary Containment		

A.2 Final SWEL 1

This section provides a list of the final equipment selected for MNGP's SWEL 1 in Table A-2 below. This table identifies which items were selected for anchorage configuration verification, as well as which items are being deferred due to inaccessibility. The comments column of this table identifies the following selection criteria which were utilized in Screen #4:

- "IPEEE Enhanced" identifies that this equipment was enhanced due to outliers identified during the IPEEE program.
- "New or Replaced" identifies this equipment as major new or replacement equipment.
- "Risk significant" identifies this equipment as risk significant.

The equipment class, safety function, and system designations used in Table A-2 are the same as Table A-1.

Table A-2: Monticello SWEL 1

Equipment Tag	Description	Class	Safety Function	System	Comments	Verify Anchorage?	Defer?
152-505	4KV TO P-208A 11 Core Spray Pump	(03) Medium Voltage Switchgear	3	4KV			Yes
AO-2379	VACUUM RELIEF DAMPER	(07) Fluid-Operated Valves	5	PCT			
AO-2-80A	INBOARD MSIV	(07) Fluid-Operated Valves	2, 3, 5	MST			Yes
AO-4539	HARD PIPE VENT INBOARD ISOLATION VALVE	(07) Fluid-Operated Valves	5	PCT	Risk Significant		
AV-3147	11 RHR SW PUMP P-109A AUTO AIR VENT	(07) Fluid-Operated Valves	4, 5	RSW	New or Replaced		
AV-4024	13 ESW PUMP P-111C DISCHARGE AIR VENT	(07) Fluid-Operated Valves	3, 4, 5	FSW			

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
BPM-1, Location 11 DG	DC-BOOSTER PUMP MOTOR	(05) Horizontal Pumps	1, 3, 4, 5	DGN			
BUS 15	4160 SWITCHGEAR	(03) Medium Voltage Switchgear	1, 2, 3, 4, 5	4KV			Yes
C-03	RX AND CTMT COOLING AND ISOL BENCH BOARD	(20) Instrumentation and Control Panels and Cabinets	2, 3, 4, 5	MSC			
C-122	JET PUMP INSTRUMENT RACK	(18) Instruments on Racks	3	REC		Yes	
C-129A	RHR INSTRUMENT RACK	(18) Instruments on Racks	3, 4, 5	RHR		Yes	
C-129B	RHR INSTRUMENT RACK	(18) Instruments on Racks	3, 4, 5	RHR		Yes	
C-253A	SRV Panel	(20) Instrumentation and Control Panels and Cabinets	2	APR		Yes	
C-253D	DIV II LOLO SET BYPASS PANEL	(20) Instrumentation and Control Panels and Cabinets	2	APR	Internal cabinet inspection required		Yes
C-290A	SRV BLOWDOWN INST PANEL	(18) Instruments on Racks	2, 3	APR			
C-292	ASDS BENCHBOARD	(20) Instrumentation and Control Panels and Cabinets	1, 2, 3, 4, 5	ASD		Yes	
C-30	RCIC CABLE SPR RM CONTROL PANEL	(20) Instrumentation and Control Panels and Cabinets	3	RCI		Yes	
C-303A	ECCS DIV I ANALOG TRIP SYSTEM	(20) Instrumentation and Control Panels and Cabinets	3	PPS		Yes	
C-39	HPCI RELAY PANEL	(20) Instrumentation and Control Panels and Cabinets	3	HPC		Yes	

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
C-41	INBOARD ISOLATION RELAY PANEL	(20) Instrumentation and Control Panels and Cabinets	3, 5	PPS		Yes	
C-55	RX LEVEL & PRESSURE RACK	(18) Instruments on Racks	1, 2, 3, 5	RPV		Yes	
C-91	11 DIESEL GEN ELECTRICAL	(20) Instrumentation and Control Panels and Cabinets	1, 3, 4, 5	DGN			Yes
C-93	11 DIESEL GEN CONTROL	(20) Instrumentation and Control Panels and Cabinets	1, 3, 4, 5	DGN		Yes	Yes
CRD HCU W	CRD HYDRALIC CONTROL UNITS WEST SIDE	(18) Instruments on Racks	1	CRD	New or Replaced	Yes	
CRD16A	SCRAM DISCHARGE VOLUME	(21) Tanks and Heat Exchangers	1, 3	CRD			
CV-1728	11 RHR HX RHRSW OUTLET	(07) Fluid-Operated Valves	4, 5	RSW			
CV-2043	HPCI STEAM LINE DRAIN TRAP BYPASS	(07) Fluid-Operated Valves	3	HPC			
CV-3-32A	WEST SDV VENT	(07) Fluid-Operated Valves	1, 3	CRH			
D1	#11 BATTERY 125VDC	(15) Batteries on Racks	1, 2, 3, 4, 5	125	Risk Significant	Yes	
D100	DIV 2 125/250 VDC DISTRIBUTION PANEL	(14) Distribution Panels	1, 2, 3, 4, 5	250	Risk Significant		
D11	DIV I 125VDC DISTRIBUTION CENTER	(14) Distribution Panels	1, 2, 3, 4, 5	125	Risk Significant		Yes
D31	DIV I 125/250 VDC DISTRIBUTION PANEL	(14) Distribution Panels	1, 2, 3, 4, 5	250	Risk Significant	Yes	

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
D3A	#13 (DIV 1) 125/250VDC BATTERY "A"	(15) Batteries on Racks	1, 2, 3, 4, 5	250	Risk Significant	Yes	
D3B	#13 (DIV 1) 125/250VDC BATTERY "B"	(15) Batteries on Racks	1, 2, 3, 4, 5	250	Risk Significant	Yes	
D40	125VDC SWING CHARGER FOR #11 AND #12 BATTERIES	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	125	Risk Significant, New or Replaced, Internal cabinet inspection required	Yes	Yes
D54	SWING CHARGER D3A,D3B 13 BATTERY	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	250	Risk Significant, Internal cabinet inspection required	Yes	Yes
D90	CHARGER, SWING D6A,D6B (16) BATTERY	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	250	Risk Significant, Internal cabinet inspection required	Yes	Yes
DM-8089A1	V-SF-9 SUPPLY DAMPER	(10) Air Handlers	1, 3, 4, 5	HTV			
DM-8089J1	V-SF-10 SUPPLY DAMPER	(10) Air Handlers	1, 3, 4, 5	HTV			
FT-23-82	HPCI PUMP FLOW TRANSMITTER	(18) Instruments on Racks	3	HPC			
G31	#11 DG NEUTRAL GROUNDING CABINET	(04) Transformers	1, 3, 4, 5	DGN			Yes
G-3A	11 EMERGENCY DIESEL GENERATOR	(17) Engine-Generators	1, 3, 4, 5	DGN		Yes	
G-3B	12 EMERGENCY DIESEL GENERATOR	(17) Engine-Generators	1, 3, 4, 5	DGN		Yes	

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
K-10A	RHRSW AUX AIR COMP	(12) Air Compressors	4, 5	RSW		Yes	
K-8A	11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	(12) Air Compressors	1, 3, 4, 5	DGN		Yes	
K-8B	11 ELECTRIC AIR STARTER COMPRESSOR #2	(12) Air Compressors	1, 3, 4, 5	DGN		Yes	
LT-2-3-72A	LO LO REACTOR LVL ECCS INITIATION	(18) Instruments on Racks	2, 3	RPV	Risk Significant		
LT-2-3-72C	LO LO REACTOR LVL ECCS INITIATION	(18) Instruments on Racks	2, 3	RPV	Risk Significant		
LT-2996	TORUS WATER LEVEL	(18) Instruments on Racks	5	PCT			
MCC-133B	480V AC MOTOR CONTROL CENTER 133B	(01) Motor Control Centers	1, 3, 4, 5	480	Risk Significant		Yes
MCC-134	480 V MCC (B34)	(01) Motor Control Centers	1, 3, 4, 5	480	Internal cabinet inspection required		Yes
MCC-312	DIV 2 (HPCI) 250V DC MOTOR CONTROL CENTER 312	(01) Motor Control Centers	3	250	Risk Significant		Yes
MCC-313	DIV 1 250V DC MOTOR CONTROL CENTER 313	(01) Motor Control Centers	2, 3, 5	250	Risk Significant, Internal cabinet inspection required	Yes	Yes
MO-1741	11 CS PUMP TORUS SUCTION	(08) Motor-Operated and Solenoid-Operated Valves	3	CSP			
MO-2010	TORUS SPRAY VLV	(08) Motor-Operated and Solenoid-Operated Valves	4, 5	RHR			

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
MO-2012	11 RHR LPCI OUTBOARD INJECTION	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR			
MO-2013	RHR/RHR B LPCI INJ OUTBD	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR			
MO-2030	RHR SHUTDOWN COOLING SUPPLY OUTBOARD ISOLATION	(08) Motor-Operated and Solenoid-Operated Valves	3, 4	RHR			
MO-2063	HPCI CST SUCT	(08) Motor-Operated and Solenoid-Operated Valves	3	HPC			
MO-2078	RCIC TURBINE STEAM SUPPLY	(08) Motor-Operated and Solenoid-Operated Valves	3	RCI	Risk Significant		
MO-2106	RCIC PUMP DISCHARGE OUTBOARD	(08) Motor-Operated and Solenoid-Operated Valves	3	RCI	Risk Significant		
MO-2374	MAIN STEAM LINE DRAIN - OUTBOARD	(08) Motor-Operated and Solenoid-Operated Valves	2, 3, 5	MST	New or Replaced		Yes
N3346A	11 EDG AIR CMPSR 1 (K-8A) LOCAL DISCONNECT SWITCH	(20) Instrumentation and Control Panels and Cabinets	1,3, 4, 5	DGN	Internal cabinet inspection required		Yes
N3347	MOTOR STARTER FOR K-10A	(20) Instrumentation and Control Panels and Cabinets	4, 5	RSW	Internal cabinet inspection required		Yes
N4301A	11 EDG AIR CMPSR 2 (K-8B) LOCAL DISCONNECT SWITCH	(20) Instrumentation and Control Panels and Cabinets	1, 3, 4, 5	DGN	Internal cabinet inspection required		Yes
P-109A	11 RHR SW PUMP	(06) Vertical Pumps	4, 5	RSW	New or Replaced	Yes	
P-11	DIESEL OIL XFER PUMP	(05) Horizontal Pumps	1, 3, 4, 5	DOL		Yes	

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
P-111A	11 ESW (EDG-ESW) PUMP	(06) Vertical Pumps	1, 3, 4, 5	ESW		Yes	
P-111C	13 ESW (EDG-ESW) PUMP	(06) Vertical Pumps	3, 4, 5	FSW	New or Replaced	Yes	
P-202C	13 RHR PUMP	(06) Vertical Pumps	3, 4, 5	RHR	New or Replaced	Yes	
P-203A	11 SBLC Pump	(05) Horizontal Pumps	1	SLC		Yes	
P-208A	11 CORE SPRAY PUMP	(06) Vertical Pumps	3	CSP			
P-209	HPCI PUMP	(05) Horizontal Pumps	3	HPC	Risk Significant	Yes	
P-222A	11 DG FUEL TRANSFER PUMP #1	(05) Horizontal Pumps	1, 3, 4, 5	DGN			
P-73A	480V POWER PANEL	(14) Distribution Panels	4, 5	480	Internal cabinet inspection required	Yes	Yes
P-88A	ECCS AREA DRAIN PUMP	(06) Vertical Pumps	3, 4, 5	LRW			
PS-23-97A	HPCI HI TURB EXH PRESS TURB TRIP	(18) Instruments on Racks	3	HPC	Risk Significant		
RV-1990	RHR 11 PUMP SUCTION RV	(07) Fluid-Operated Valves	3, 4, 5	RHR			
RV-2-71A	A SRV	(07) Fluid-Operated Valves	2	APR	Risk Significant		Yes
SV-1728	CV-1728 (11 RHR HX RHRSW OUTLET)SV	(08) Motor-Operated and Solenoid-Operated Valves	4, 5	RSW		Yes	
SV-2379	ALT N2 A SPLY TO AO-2379	(08) Motor-Operated and Solenoid-Operated Valves	5	PCT			
T-200	Standby Liquid Control Tank	(21) Tanks and Heat Exchangers	1	SLC		Yes	

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
T-45A	STANDBY DIESEL GENERATOR DAY TANK	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DOL		Yes	
T-45B	STANDBY DIESEL GENERATOR DAY TANK	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DOL		Yes	
T-75A	ACCUMULATOR FOR SV-1994	(21) Tanks and Heat Exchangers	3, 4, 5	RHR			
T-79D	11 DG AIR TK D	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DGN	IPEEE Enhanced	Yes	
T-80A	12 DG AIR TK A	(21) Tanks and Heat Exchangers	1, 3, 4, 5	DGN	IPEEE Enhanced	Yes	
T-ALTN2B	ALT N2 B BOTTLE RACK	(21) Tanks and Heat Exchangers	2, 5	AN2			
TS-13-79C	RCIC STM LINE HI AREA TEMPERATURE ISOLATION	(19) Temperature Sensors	2, 3, 5	RCI			
V-AC-5	RHR A AIR HANDLER	(10) Air Handlers	3, 4, 5	HTV		Yes	
V-EAC-14A	CRV DIV I HVAC UNIT	(11) Chillers	1, 2, 3, 4, 5	EFT			
V-EF-40A	DIV II 250VDC BATTERY ROOM VENTILATION	(10) Air Handlers	1, 2, 3, 4, 5	EFT	New or Replaced		
V-EF-40B	DIV II 250VDC BATTERY ROOM VENTILATION	(10) Air Handlers	1, 2, 3, 4, 5	EFT	New or Replaced		
V-ERF-14A	CRV DIV I EXHAUST RECIRC FAN	(10) Air Handlers	1, 2, 3, 4, 5	EFT			
V-FE-11	DIV 1 EFT CHARCOAL AIR FILTER UNIT	(10) Air Handlers	1, 2, 3, 4, 5	EFT			
V-SF-10	11 DIESEL ROOM VENT FAN	(09) Fans	1, 3, 4, 5	HTV		Yes	

Table A-2: Monticello SWEL 1							
Equipment Tag	**Description**	**Class**	**Safety Function**	**System**	**Comments**	**Verify Anchorage?**	**Defer?**
V-SF-9	12 DIESEL ROOM VENT FAN	(09) Fans	1, 3, 4, 5	HTV		Yes	
X30	TRANSFORMER	(04) Transformers	1, 3, 4, 5	480			
Y72	120 VDC TRANSFORMER FEEDING Y73	(04) Transformers	1, 2, 3, 4, 5	UAC		Yes	
Y81	DIV 2 120VAC CLASS 1E INVERTER	(16) Battery Chargers and Inverters	1, 2, 3, 4, 5	UAC	Internal cabinet inspection required	Yes	Yes

B

Seismic Walkdown Checklists (SWCs)

This appendix provides the Seismic Walkdown Checklists (SWC) completed as of November 1, 2012 for the MNGP. Table B-1 provides a description of each item, anchorage configuration verification, and the checklist status for each SWC. If a checklist status is marked "Y," then the SWEs concluded in the field that the equipment was seismically acceptable. If a checklist status is marked as "N," then the SWEs judged there was a potential adverse condition which required additional information to determine if the equipment was seismically adequate, complied with current site procedures and met the current licensing basis requirements. None of the observations noted in the SWCs were found to be adverse seismic conditions that significantly affected or degraded safety related functions of equipment. Appendix F of this report provides the disposition of all observations noted in the SWCs.

The SWCs are provided after this table, and are in the same chronological order as listed in the table.

The SWCs in this appendix include information on the location of SWEL components, which is considered Sensitive Unclassified Non-Safeguards Information (SUNSI), of which the loss, issue, modification, or unauthorized access can reasonably be foreseen to harm the safe operation of the nuclear plant. Pages which contain proprietary information have been marked, and the sensitive information has been redacted.

Table B-1: Monticello Completed SWCs

Equipment Tag	Description	Anchorage Verified	Checklist Status (Y/N)
AO-2379	VACUUM RELIEF DAMPER	-	Y
AO-4539	HARD PIPE VENT INBOARD ISOLATION VALVE	-	N
AV-3147	11 RHR SW PUMP P-109A AUTO AIR VENT	-	Y
AV-4024	13 ESW PUMP P-111C DISCHARGE AIR VENT	-	Y
BPM-1, Location 11 DG	DC-BOOSTER PUMP MOTOR	-	Y

Table B-1: Monticello Completed SWCs			
Equipment Tag	**Description**	**Anchorage Verified**	**Checklist Status (Y/N)**
C-03	RX AND CTMT COOLING AND ISOL BENCH BOARD	-	N
C-122	JET PUMP INSTRUMENT RACK	Yes	N
C-129A	RHR INSTRUMENT RACK	Yes	Y
C-129B	RHR INSTRUMENT RACK	Yes	Y
C-253A	SRV Panel	Yes	Y
C-290A	SRV BLOWDOWN INST PANEL	-	Y
C-292	ASDS BENCHBOARD	Yes	Y
C-30	RCIC CABLE SPR RM CONTROL PANEL	Yes	Y
C-303A	ECCS DIV I ANALOG TRIP SYSTEM	Yes	Y
C-39	HPCI RELAY PANEL	Yes	Y
C-41	INBOARD ISOLATION RELAY PANEL	Yes	Y
C-55	RX LEVEL & PRESSURE RACK	Yes	Y
CRD HCU W	CRD HYDRALIC CONTROL UNITS WEST SIDE	Yes	N
CRD16A	SCRAM DISCHARGE VOLUME	-	Y
CV-1728	11 RHR HX RHRSW OUTLET	-	Y
CV-2043	HPCI STEAM LINE DRAIN TRAP BYPASS	-	Y
CV-3-32A	WEST SDV VENT	-	Y
D1	#11 BATTERY 125VDC	Yes	Y
D100	DIV 2 125/250 VDC DISTRIBUTION PANEL	-	Y

Table B-1: Monticello Completed SWCs			
Equipment Tag	**Description**	**Anchorage Verified**	**Checklist Status (Y/N)**
D31	DIV I 125/250 VDC DISTRIBUTION PANEL	Yes	Y
D3A	#13 (DIV 1) 125/250VDC BATTERY "A"	Yes	Y
D3B	#13 (DIV 1) 125/250VDC BATTERY "B"	Yes	Y
DM-8089A1	V-SF-9 SUPPLY DAMPER	-	Y
DM-8089J1	V-SF-10 SUPPLY DAMPER	-	Y
FT-23-82	HPCI PUMP FLOW TRANSMITTER	-	Y
G-3A	11 EMERGENCY DIESEL GENERATOR	Yes	Y
G-3B	12 EMERGENCY DIESEL GENERATOR	Yes	Y
K-10A	RHRSW AUX AIR COMP	Yes	Y
K-8A	11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	Yes	Y
K-8B	11 ELECTRIC AIR STARTER COMPRESSOR #2	Yes	Y
LT-2-3-72A	LO LO REACTOR LVL ECCS INITIATION	-	Y
LT-2-3-72C	LO LO REACTOR LVL ECCS INITIATION	-	Y
LT-2996	TORUS WATER LEVEL	-	Y
MO-1741	11 CS PUMP TORUS SUCTION	-	Y
MO-2010	TORUS SPRAY VLV	-	Y
MO-2012	11 RHR LPCI OUTBOARD INJECTION	-	Y
MO-2013	RHR/RHR B LPCI INJ OUTBD	-	Y
MO-2030	RHR SHUTDOWN COOLING SUPPLY OUTBOARD ISOLATION	-	Y

Table B-1: Monticello Completed SWCs			
Equipment Tag	**Description**	**Anchorage Verified**	**Checklist Status (Y/N)**
MO-2063	HPCI CST SUCT	-	Y
MO-2078	RCIC TURBINE STEAM SUPPLY	-	Y
MO-2106	RCIC PUMP DISCHARGE OUTBOARD	-	Y
P-109A	11 RHR SW PUMP	Yes	Y
P-11	DIESEL OIL XFER PUMP	Yes	Y
P-111A	11 ESW (EDG-ESW) PUMP	Yes	Y
P-111C	13 ESW (EDG-ESW) PUMP	Yes	Y
P-202C	13 RHR PUMP	Yes	Y
P-203A	11 SBLC Pump	Yes	N
P-208A	11 CORE SPRAY PUMP	-	Y
P-209	HPCI PUMP	Yes	N
P-222A	11 DG FUEL TRANSFER PUMP #1	-	Y
P-88A	ECCS AREA DRAIN PUMP	-	N
PS-23-97A	HPCI HI TURB EXH PRESS TURB TRIP	-	Y
RV-1990	RHR 11 PUMP SUCTION RV	-	Y
SV-1728	CV-1728 (11 RHR HX RHRSW OUTLET)SV	Yes	Y
SV-2379	ALT N2 A SPLY TO AO-2379	-	Y
T-200	Standby Liquid Control Tank	Yes	N
T-45A	STANDBY DIESEL GENERATOR DAY TANK	Yes	Y
T-45B	STANDBY DIESEL GENERATOR DAY TANK	Yes	Y

Table B-1: Monticello Completed SWCs			
Equipment Tag	**Description**	**Anchorage Verified**	**Checklist Status (Y/N)**
T-75A	ACCUMULATOR FOR SV-1994	-	Y
T-79D	11 DG AIR TK D	Yes	Y
T-80A	12 DG AIR TK A	Yes	Y
T-ALTN2B	ALT N2 B BOTTLE RACK	-	Y
TS-13-79C	RCIC STM LINE HI AREA TEMPERATURE ISOLATION	-	Y
V-AC-5	RHR A AIR HANDLER	Yes	Y
V-EAC-14A	CRV DIV I HVAC UNIT	-	Y
V-EF-40A	DIV II 250VDC BATTERY ROOM VENTILATION	-	Y
V-EF-40B	DIV II 250VDC BATTERY ROOM VENTILATION	-	Y
V-ERF-14A	CRV DIV I EXHAUST RECIRC FAN	-	Y
V-FE-11	DIV 1 EFT CHARCOAL AIR FILTER UNIT	-	Y
V-SF-10	11 DIESEL ROOM VENT FAN	Yes	Y
V-SF-9	12 DIESEL ROOM VENT FAN	Yes	N
X30	TRANSFORMER	-	Y
Y72	120 VDC TRANSFORMER FEEDING Y73	Yes	Y

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AO-2379* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *Vacuum Relief Damper*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Torus Catwalk*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AO-2379* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *Vacuum Relief Damper*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AO-4539* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *Hard Pipe Vent Inboard Isolation Valve*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Torus Catwalk*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AO-4539* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *Hard Pipe Vent Inboard Isolation Valve*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   SWEs noted JB 2J4245 has 3 bolts instead of 4 anchoring it to ceiling. SWEs judge JB has adequate seismic capacity for anticipated seismic loads.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☐ N☒ U☐
    SWEs noted 2G4007 conduit is used as anchor point to tie together other power cables using tie wraps. Also noted electrical tape used to hold up power cables at connection point on valve.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AV-3147* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *11 RHR SW Pump P-109A Auto Air Vent*

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area *Main Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AV-3147* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *11 RHR SW Pump P-109A Auto Air Vent*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Fire protection spray piping is seismically supported.

9. Do attached lines have adequate flexibility to avoid damage? Y☐ N☐ U☐ N/A☒
   No attached lines.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AV-4024* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *13 ESW Pump P-111C Discharge Air Vent*

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area *Main Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *AV-4024* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *13 ESW Pump P-111C Discharge Air Vent*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Fire protection spray lines above are seismically supported.

9. Do attached lines have adequate flexibility to avoid damage? Y☐ N☐ U☐ N/A☒
   No attached lines.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *BPM-1* Equip. Class[1] *(05)Horizontal Pumps*

Equipment Description *DC-Booster Pump Motor*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *BPM-1* Equip. Class[1] *(05)Horizontal Pumps*

Equipment Description *DC-Booster Pump Motor*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Fire protection piping is seismically designed - that is, it has been engineered with lateral supports.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   No potential for relative movement.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-03* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *RX and CTMT Cooling and ISOL Bench Board*

Location: Bldg. *Admin* Floor El. [redacted] Room, Area *CR*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-03* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *RX and CTMT Cooling and ISOL Bench Board*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☐ N☒ U☐
Door connecting front and back panels is free to swing. Door could impact C-03 in seismic event and is a seismic interaction issue.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-122* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *Jet Pump Instrument Rack*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *East*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐
   5 legs - 1/2" bolts plus 2 legs x (2)-1/2" bolts.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☒ U☐ N/A☐
   Pictures were taken of each leg starting with the south end. Floor bolts are combination of 3/8" and 1/2" bolts. Anchorage does not match calculation. Also one bolt apprears not fully threaded.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-122* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *Jet Pump Instrument Rack*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Noted overhead lighting all rod hung on long rods. This system will have pendulum motion in earthquake. Lighting system higher than rack, so it will not impact rack. System has good seismic capacity.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

On a concrete pad. 10 x 1/2" diameter expansion anchor bolts.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-129A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *RHR Instrument Rack*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Four 1/2" diameter through bolts into platform grating. It also has a unistrut brace to wall using two bolts into wall via unistrut.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-129A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *RHR Instrument Rack*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/14/12

Steve Kaas Steve Kaas 8/8/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-129B* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *RHR Instrument Rack*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *B RHR Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   The bolt pattern depicted in calculation 99-015 matches field configuration.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-129B* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *RHR Instrument Rack*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

(2) - 1/2" diameter thru bolts per foot. 4 bolts total per SQUG SEWS.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-253A* Equip. Class[1] *(20)Instrumentation and Control Panels and Cabinets*

Equipment Description *SRV Panel*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *CSR*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   As built: four bolts anchoring panel to baseplate. Four more bolts anchoring baseplate to concrete, as-built configuration matches anchorage documented in SQUG SEWS.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-253A* Equip. Class[1] *(20)Instrumentation and Control Panels and Cabinets*

Equipment Description *SRV Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐
SWEs noted 1/4" gap which was the same gap as reported in SQUG project,which was determined acceptable.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-290A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *SRV Blowdown Inst. Panel*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Torus Area*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-290A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *SRV Blowdown Inst. Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   No relative displacement of equipment and lines.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐
    Hand cart is located near panel but it is chained/secured to structure and will not impact equipment.

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-292* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *ASDS Benchboard*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *South*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-292* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *ASDS Benchboard*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

28" of 3/16" fillet weld. Similar mounted weld through midsection. (4) - 5/8" Hilti bolts located on front side. This was documented in SQUG SEWS.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-30* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *RCIC Cable SPR RM Control Panel*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *CSR*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-30* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *RCIC Cable SPR RM Control Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
The flexible and rigid conduits are adequate for seismic loading.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-303A* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *ECCS Div 1 Analog Trip System*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *CSR*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-303A* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *ECCS Div 1 Analog Trip System*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Rigid and flexible conduits are adequate.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-39* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *HPCI Relay Panel*

Location: Bldg. *Admin* Floor El. [redacted] Room, Area *CSR*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-39* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *HPCI Relay Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-41* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *Inboard Isolation Relay Panel*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *CSR*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   The as-built configuration of the anchorage shows four anchors symmetric around base, about 12" apart.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-41* Equip. Class[1] *(20) Instrumentation and Control Panels and Cabinets*

Equipment Description *Inboard Isolation Relay Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Intercom system and chair are within one foot of C-41. Intercom is not mounted. It is resting on a table fixed to wall. Recommendation made to move chair and move or secure intercom system.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

SWE's notes: The drywell leak rate timer box is mounted on side of C-41. The box is adequately anchored to the side of C-41 with four bolts.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-55* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *RX Level & Pressure Rack*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *South*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Slight surface oxidation on nut. SWE judged this as no issue.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   No cracks - good condition.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *C-55* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *RX Level & Pressure Rack*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Duct work is ductile.Per drawing NF-36300-1-2, Fig 3-1D all masonry block walls are safety-related and seismically evaluated. Floor drain pipe above is welded steel and is acceptable.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Instrument rack is braced and rigid so no potential for relative movements.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CRD HCU W* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *CRD Hydralic Control Units West Side*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *West*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CRD HCU W* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *CRD Hydralic Control Units West Side*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☐ N☒ U☐ N/A☐
   CST line is in contact w/ CRD structural column. WO 62289 was initiated as part of CAP 1259196 to address rubbing.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Two 1/2" bolts anchor each 1-1/2" diameter pipe. Four total pipes are bracing each piece of equipment.

Housekeeping: 1) Tie wraps around anchors CRD 38-35 of CRD 38-35 look like
2) DuctTape on nearby CSW line.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CRD16A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Scram Discharge Volume*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *West*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CRD16A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Scram Discharge Volume*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☐ N☐ U☐ N/A☒
   Tank has no electrical connection. Attached piping is large bore, rigid pipe. SWEs judge configuration acceptable.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Housekeeping: Is it acceptable to store hose or five gallon jug underneath the tank?

Evaluated by: *Bruce Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CV-1728* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *11 RHR HX RHRSW Outlet*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CV-1728* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *11 RHR HX RHRSW Outlet*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Masonry block wall surrounding stairwell is seismically qualified since wall identified in this manner in Drawing NF-36300-1-2.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CV-2043* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *HPCI Steam Line Drain Trap Bypass*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *HPCI Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CV-2043* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *HPCI Steam Line Drain Trap Bypass*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CV-3-32A* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *West SDV Vent*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *West*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *CV-3-32A* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *West SDV Vent*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Housekeeping: A large tie wrap is fastened to CRD line near valve.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D1* Equip. Class[1] *(15) Batteries on Racks*

Equipment Description *#11 Battery 125VDC*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *#11 125 BA*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐
   Configuration is different than SEWS reference D2. Configuration is bounded by D2.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks noted but they are not a structural deficiency

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   Consistent and bounded as indicated by D2 SEWS.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D1* Equip. Class[1] *(15) Batteries on Racks*

Equipment Description *#11 Battery 125VDC*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Lights - all-thread rod to unistrut acceptable.
   Ducts - anchored w/ straps acceptable.
   CMU - qualified seismic (see SEWS), so acceptable.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D100* Equip. Class[1] *(14) Distribution Panels*

Equipment Description *Div 2 125/250 VDC Distribution Panel*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *All*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D100* Equip. Class[1] *(14) Distribution Panels*

Equipment Description *Div 2 125/250 VDC Distribution Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Two rigid conduit is connected to the termination box on top of the panel. This configuration is judged acceptable by the SWEs.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D31* Equip. Class[1] *(14) Distribution Panels*

Equipment Description *Div 1 125/250 VDC Distribution Panel*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *DIV 1 250V*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks not structural

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   Description consistent with SEWS. Plant drawing inaccurate with installation of anchors. SEWS evaluation on anchors uses correct "as found" configuration.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D31* Equip. Class[1] *(14) Distribution Panels*

Equipment Description *Div 1 125/250 VDC Distribution Panel*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐
HVAC duct close to top conduit P685, judged not likely to cause adverse interaction.

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/1/12

Scott Luckiesh 8/2/12

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Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D3A* Equip. Class[1] *(15)Batteries on Racks*

Equipment Description *#13 (Div 1) 125/250 VDC Battery "A"*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *250 VDC DI*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Center stanchion of west (wall) rack has excessive projection & 2nd stanchion from north has excessive projection

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks but not structural cracks

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   No, but it is bounded by D2 anchorage evaluation in original A-46 SEWS (see sketch on photo sheet)

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D3A* Equip. Class[1] *(15)Batteries on Racks*

Equipment Description *#13 (Div 1) 125/250 VDC Battery "A"*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Saline bottle partially dislodged from holder. Placed back to fully secure.
   Junction box 2P4000, and 1P3002, FE-4618 (2 of 4 tabs anchored); adjudged acceptable.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   (see SEWS for block walls that are seismically qualified)
   Duct strap on duct over Door 109/D40 not tight. It is still capable of carrying load.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Saline bottle restored to properly secured position

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

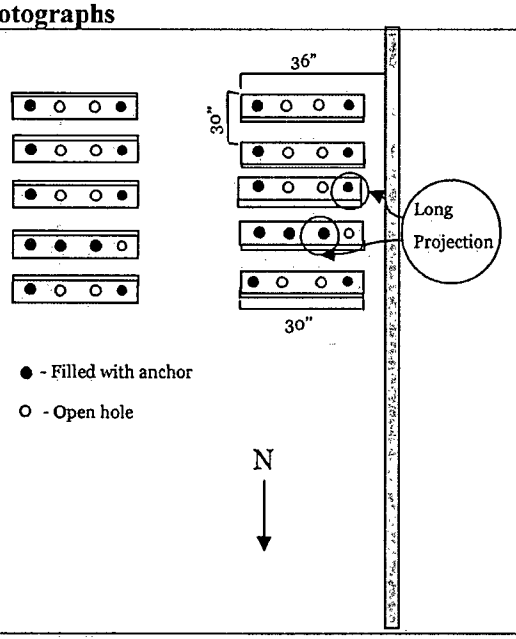
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

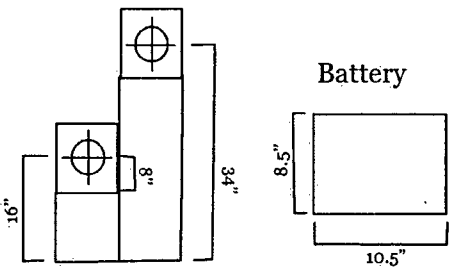
Equipment ID No. *D3A* Equip. Class[1] *(15)Batteries on Racks*

Equipment Description *#13 (Div 1) 125/250 VDC Battery "A"*

Photographs



Note:



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Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D3B* Equip. Class[1] *(15)Batteries on Racks*

Equipment Description *#13 (Div 1) 125/250VDC Battery "B"*

Location: Bldg. *ADMIN* Floor El. [redacted] Room, Area *250 VDC DI*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks, no structural cracks

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   Consistent with D2 SEWS anchorage, and is bounded by D2 SEWS anchorage analysis. Two outer anchor interactions installed, inner two locations open (see sketch)

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *D3B* Equip. Class[1] *(15)Batteries on Racks*

Equipment Description *#13 (Div 1) 125/250VDC Battery "B"*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   1) 1P3002: exterior anchorage tabs not installed. Judged acceptable.
   2) FE-4818: 2 of 4 tabs installed. Adjudged acceptable.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

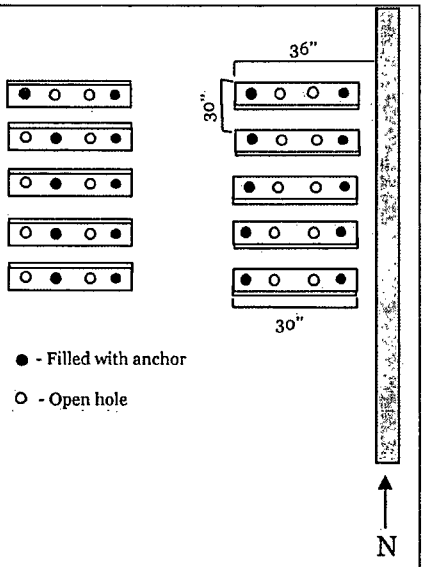
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

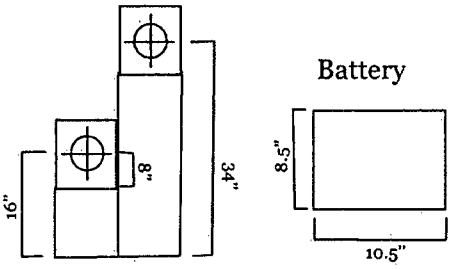
Equipment ID No. *D3B* Equip. Class[1] *(15)Batteries on Racks*

Equipment Description *#13 (Div 1) 125/250VDC Battery "B"*

Photographs



Note:



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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *DM-8089A1* Equip. Class[1] *(10) Air Handlers*

Equipment Description *V-SF-9 Supply Damper*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *DG BLDG*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *DM-8089A1* Equip. Class[1] *(10) Air Handlers*

Equipment Description *V-SF-9 Supply Damper*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *DM-8089J1* Equip. Class[1] *(10) Air Handlers*

Equipment Description *V-SF-10 Supply Damper*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *DG BLDG*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒
   Overall unit is one integral unit built into building. Anchorage of the unit is not visible; however, in any case the damper fails in the open position if the damper is dislodged because pneumatic pressure is lost.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Floor cracks which have no effect on damper unit anchorage.
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *DM-8089J1* Equip. Class[1] *(10) Air Handlers*

Equipment Description *V-SF-10 Supply Damper*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *FT-23-82* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *HPCI Pump Flow Transmitter*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *HPCI Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Team also looked at Rack C-120 anchorage. Team noted ground water leakage onto center rack kicker support.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Team looked for cracks around C-120 rack anchorage since transmitter is locally mounted on rack. No cracks were found.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *FT-23-82* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *HPCI Pump Flow Transmitter*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *G-3A* Equip. Class[1] *(17) Engine-Generators*

Equipment Description *11 Emergency Diesel Generator*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG RM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Surface oxidation only. SWEs judged as acceptable.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *G-3A* Equip. Class[1] *(17) Engine-Generators*

Equipment Description *11 Emergency Diesel Generator*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   1) Temporary power pack (TH-3) located approximately 4' South of DG skid is not deemed a hazard but should be chained to wall hooks on south end.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Cast iron drain piping is laterally unrestrained but not deemed a flooding hazard or a seismic interaction hazard as it is rod supported along the horizontal run and the vertical run has two gravity supports.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    House heating steam fan will displace less than 1" during seismic event so steam line has adequate flexibility; however, a brace to adjacent wall may be an enhancement to prevent damage to attached steam supply piping which is threaded-end piping and has high stress intensification factors.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Turbine Building roof drain ends up as a 12" line connected with victaulic couples. Not deemed a seismic interaction hazard; however the mechanical couplings may pry open (deemed unlikely) so some rain water could leak out but there are two drains in EDG room that can accommodate such a leak.

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *G-3B* Equip. Class[1] *(17) Engine-Generators*

Equipment Description *12 Emergency Diesel Generator*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *12 DG ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Mild rust noted on some bolts. SWEs judge them acceptable.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *G-3B* Equip. Class[1] *(17) Engine-Generators*

Equipment Description *12 Emergency Diesel Generator*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Tubing attached to FE-4224B and FIS-4224B (12 emergency diesel generator ESW low floor alarm) is anchored to wall with P-2010 unistrut spring nuts. The pipe the tubing is connected to has different movement from floor. SWEs judge that the spring nut will allow tubing to slide in seismic event if there is a large enough differential movement between the wall and floor.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

(14) - 1 1/4" cast in place bolts, seven bolts each side at approx 57" spacing per S & A calc # 91C2687

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *K-10A* Equip. Class[1] *(12) Air Compressors*

Equipment Description *RHRSW Aux Air Comp.*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Southeast*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *K-10A* Equip. Class[1] *(12) Air Compressors*

Equipment Description *RHRSW Aux Air Comp.*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Masonry block is safety related and is therefore acceptable.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

There are four 1/2" diameter expansion anchors, which are spaced 32" wide and 19" long.

Evaluated by: *Bruce Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *K-8A* Equip. Class[1] *(12) Air Compressors*

Equipment Description *11 EDG Electrical/Diesel Air Starter Compressor #1*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG RM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *K-8A* Equip. Class[1] *(12) Air Compressors*

Equipment Description *11 EDG Electrical/Diesel Air Starter Compressor #1*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
Starting battery is strapped in place, and is not a seismic concern.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *K-8B* Equip. Class[1] *(12) Air Compressors*

Equipment Description *11 Electric Air Starter Compressor #2*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Some degradation of paint surface on SE corner but not at the anchor. No effect on anchors.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *K-8B* Equip. Class[1] *(12) Air Compressors*

Equipment Description *11 Electric Air Starter Compressor #2*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. LT-2-3-72A Equip. Class[1] (18) Instruments on Racks

Equipment Description LO LO Reactor LVL ECCS Initiation

Location: Bldg. RX Floor El. [redacted] Room, Area C-55

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *LT-2-3-72A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *LO LO Reactor LVL ECCS Initiation*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Per drawing NF-36300-1-2, Fig. 3-1D all masonry block walls are safety-related and seismically evaluated. Block wall is above rack/instrument location. Lighting is adequately supported.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   No relative movement between rack and instrument.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *LT-2-3-72C* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *LO LO Reactor LVL ECCS Initiation*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *C-55*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *LT-2-3-72C* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *LO LO Reactor LVL ECCS Initiation*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

See notes for LT-2-3-72A. Identical to -72A.

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *LT-2996* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *Torus Water Level*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Torus Area*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *LT-2996* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *Torus Water Level*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   There is no relative displacement between equipment and lines. Both are rigidly attached to same support structure.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-1741* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *11 CS Pump Torus Suction*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-1741* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *11 CS Pump Torus Suction*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2010* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *Torus Spray VLV*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Torus Catwalk*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2010* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *Torus Spray VLV*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
A thin wire is used to restrain a local hoist from a conduit. This is the second instance of this configuration. As an enhancement, the hoist should be attached to a more substantial anchor (not conduit) using chain.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2012* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *11 RHR LPCI Outboard Injection*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *East SD Cooling*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. MO-2012 Equip. Class[1] (08) Motor-Operated and Solenoid-Operated Valves

Equipment Description 11 RHR LPCI Outboard Injection

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: Bruce Lory Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2013* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RHR/RHR B LPCI INJ OUTBD*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *West SD Cooling*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2013* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RHR/RHR B LPCI INJ OUTBD*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Block walls confirmed to be seismic category 1 per drawing NF-36300-1-2 rev 0.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2030* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RHR Shutdown Cooling Supply Outboard Isolation*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *East SD Cooling*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2030* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RHR Shutdown Cooling Supply Outboard Isolation*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Pendant light is within swinging distance of MO-2030 but will not adversely affect MO operation.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2063* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPCI CST SUCT*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *HPCI ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2063* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPCI CST SUCT*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2078* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCIC Turbine Steam Supply*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *RCIC Room*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2078* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCIC Turbine Steam Supply*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2106* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCIC Pump Discharge Outboard*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *RCIC Room*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *MO-2106* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCIC Pump Discharge Outboard*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

SWEs noted MO-2106 valve body cuts into piping isulation approx 1". Pipeline has nearby rod pipe hanger and additional 2 or 3 way pipe support anchored to wall. SWEs judge valve cannot rotate along pipe axis to further crush pipe insulation. SWEs judge configuration acceptable and not seismic interaction issue.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-109A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *11 RHR SW Pump*

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area *Main Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Minimal oxidation where paint has chipped off. Some oxidation on mounting flange. This is not a seismic concern.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   See Stevenson and Associates Calculation 97-336, "Outlier Evaluation of Service Water Pumps."

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-109A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *11 RHR SW Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Fire protection spray lines above are seismically supported. Air louver well secured to ceiling and wall.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Wally Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-11* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *Diesel Oil XFER Pump*

Location: Bldg. *FO PM* Floor El. [redacted] Room, Area *Main Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-11* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *Diesel Oil XFER Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Pump anchorage consists of 3/8" diameter cast in place bolts spaced 15.5" lengthwise and 9" depthwise.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-111A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *11 ESW (EDG-ESW) Pump*

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area *Main Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Painted

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   See Stevenson and Associates Calculation 97-336, "Outlier Evaluation of Service Water Pumps."

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-111A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *11 ESW (EDG-ESW) Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
Chain fall from SW-2-1 has remote chance of reaching P-111A but poses no credible seismic hazard.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-111C* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *13 ESW (EDG-ESW) Pump*

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area *Main Room*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-111C* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *13 ESW (EDG-ESW) Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead fire prot. piping is seismically supported.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Chain fall from SW-2-1 is not well secured, however, poses no hazard to P-111C.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-202C* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *13 RHR Pump*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-202C* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *13 RHR Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Block wall is seismic category 1 per Drawing NF-36300-1-2.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Also looked at bearing cooling flex lines and they looked adequate. SWEs judged bearing cooling lines have adequate flexibility.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Pump anchored with four 1" diameter grouted in place anchors on 26" x 20" spacing pattern per S&A calculation attached to SQUG SEWS (job #91C2687)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-203A* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *11 SBLC Pump*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *East*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-203A* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *11 SBLC Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☒ U☐ N/A☐
   Tall scaffold is constructed above the pump. Verify the seismic assessment of this scaffold. (Same WO referenced in SWC for SLC tank)

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☐ N☒ U☐
    Final status will be dependent on outcome of scaffold seismic assessment.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

There are six 7/8" diameter holes in the base, spaced 21" and 36.5" wide, and 35.5" long. There are 3/4" foundation bolts used in these six locations.

Evaluated by: *Walter Djordjevic* Date: 8/23/2012

Scott Lucklesh 8/20/2012

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-208A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *11 Core Spray Pump*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-208A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *11 Core Spray Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead block walls are seismically qualified per drawing NF-36300-1-2 rev 0.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-209* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *HPCI PUMP*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *HPCI ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   1) Surface cracks noted on North end of pedestal. They are small hairline cracks. SWEs judge no reduction in anchor bolt capacity.
   2) Also noted horizontal cracking in pump pedestal.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☒ U☐ N/A☐
   There are eight 1" CIP anchor bolts per NX-8292-43 while the walkdown only found six 1" CIP anchor bolts. See CAP 1346272.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☐ N☒ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-209* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *HPCI PUMP*

Interaction Effects

7.	Are soft targets free from impact by nearby equipment or structures? *Noted 6x6" TS in contact with insulation on piping to HPCI Booster pump. SWE's judged acceptable. Rigid TS will have minor deflection under seismic load.*	Y☒ N☐ U☐ N/A☐
8.	Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	Y☒ N☐ U☐ N/A☐
9.	Do attached lines have adequate flexibility to avoid damage?	Y☒ N☐ U☐ N/A☐
10.	Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y☒ N☐ U☐

Other Adverse Conditions

11.	Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

8x1" diameter foundation bolts approximately 58" apart per NX-8292-43.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-222A* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *11 DG Fuel Transfer Pump #1*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG RM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Fuel pumps are securely mounted to EDG skid by four 3/8" diameter bolts.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-222A* Equip. Class[1] *(05) Horizontal Pumps*

Equipment Description *11 DG Fuel Transfer Pump #1*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   HVAC drain piping above skid not deemed a seismic interaction hazard because it is laterally supported at the east and west walls which reduces the bending moments in the line to an acceptable level.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached fuel oil lines have flexible connections.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-88A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *ECCS Area Drain Pump*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☒ U☐ N/A☐
   The anchor bolts are heavily corroded

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☐ N☒ U☐
   Based on question 3 above, the anchorage is not free of potentially adverse seismic conditions.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *P-88A* Equip. Class[1] *(06) Vertical Pumps*

Equipment Description *ECCS Area Drain Pump*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☐ N☒ U☐
Numerous tie wraps used to secure power cable from pump motor all the way to where the cable enters the cable wireway. The length of cable run is 15-20 feet with tie wraps. No flex or rigid conduit was used. Tie wraps bind cable to rigid conduit that serves a different function. Is this an approved method to seismically mount safety related cables and what is the plant standard that was used?

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *PS-23-97A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *HPCI HI TURB EXH PRESS TURB TRIP*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *HPCI ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   See SWC for FT-23-82 for discussion about corrosion on anchorage of common rack C-120.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *PS-23-97A* Equip. Class[1] *(18) Instruments on Racks*

Equipment Description *HPCI HI TURB EXH PRESS TURB TRIP*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *RV-1990* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *RHR 11 Pump Suction RV*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *RV-1990* Equip. Class[1] *(07) Fluid-Operated Valves*

Equipment Description *RHR 11 Pump Suction RV*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *SV-1728* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-1728 (11 RHR HX RHRSW Outlet) SV*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Anchorage check for whole CV-1728 control station.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Four 3/8" diameter expansion anchors noted in SEWS.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *SV-1728* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-1728 (11 RHR HX RHRSW Outlet) SV*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Masonry block wall surrounding stairwell is seismically qualified since wall identified in this manner in Drawing NF-36300-1-2.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *SV-2379* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *ALT N2 A SPLY TO AO-2379*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *Torus Catwalk*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *SV-2379* Equip. Class[1] *(08) Motor-Operated and Solenoid-Operated Valves*

Equipment Description *ALT N2 A SPLY TO AO-2379*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-200* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Standby Liquid Control Tank*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *East*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Each of four brackets has two bolts, not three bolts. Drawing NX7879-8-1 shows three holes per bracket.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks in grout pad, not of structured concern.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☒ U☐ N/A☐
   There is a discrepancy between Drawing NX7879-8-1 and what is installed in the plant.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☐ N☒ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-200* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Standby Liquid Control Tank*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Masonry block walls above and west of tank are seismically designed.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☐ N☒ U☐
    Verify the seismic assessment for the scaffold near tank. (WO 432143, component ID RV-2470)

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Four brackets equally spaced with 1-1/8" diameter anchor bolts spaced 6" apart for each brace. Bolts attach brace to the floor and brace welded to tank.

Evaluated by: *Walter Djordfevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-45A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Standby Diesel Generator Day Tank*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG DAY*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   One anchor nut is flush with stud, while other anchors have stud projection through nut. All anchors develop full strength.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-45A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Standby Diesel Generator Day Tank*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Masonry wall is seismically designed. Roof drain is rigid. No seismic issues.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-45B* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *STANDBY DIESEL GENERATOR DAY TANK*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *12 DG DAY*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-45B* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *STANDBY DIESEL GENERATOR DAY TANK*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Block wall check for 80-11. Wall D-105 is a safety related block wall per drawing NF-36300-1-3 rev. 0. Block wall therefore is acceptable.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 07/25/12

Steve Kaas Steve Kaas 07/25/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-75A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Accumulator for SV-1994*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR ROOM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-75A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *Accumulator for SV-1994*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-79D* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *11 DG Air TK D*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *11 DG RM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐
   Small hairline crack on south floor anchor was judged to be small and has no significant effect on shear capacity.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-79D* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *11 DG Air TK D*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-80A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *12 DG AIR TK A*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *12 DG RM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-80A* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *12 DG AIR TK A*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Engineering judgment was used to determine that the rigid piping system is adequate.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

All tanks are clamped to a steel rack which is connected to the floor and ceiling. The tanks are held in place by two large U-bolts. There are four total 5/8" diameter anchors.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-ALTN2B* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *ALT N2 B Bottle Rack*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *South*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *T-ALTN2B* Equip. Class[1] *(21) Tanks and Heat Exchangers*

Equipment Description *ALT N2 B Bottle Rack*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *TS-13-79C* Equip. Class[1] *(19) Temperature Sensors*

Equipment Description *RCIC STM Line Hi Area Temperature Isolation*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *RCIC*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *TS-13-79C* Equip. Class[1] *(19) Temperature Sensors*

Equipment Description *RCIC STM Line Hi Area Temperature Isolation*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Rigid conduit used is acceptable

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Noted: Cord of I & C squak box is looped around stairwell railing. SWE's judge ok but recommend clamp or other device to secure more adequately.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-AC-5* Equip. Class[1] *(10) Air Handlers*

Equipment Description *RHR A Air Handler*

Location: Bldg. *RX* Floor El. [redacted] Room, Area *A RHR RM*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Mild oxidation of weld connecting isolator base to grating. SWEs judge it is acceptable.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Mounted on grating.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-AC-5* Equip. Class[1] *(10) Air Handlers*

Equipment Description *RHR A Air Handler*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Four 1/2" diameter anchors on 90" x 31-1/2" pattern.
Housekeeping/FME: Broken wire hanging and large tie wrap broken and should be removed.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-EAC-14A* Equip. Class[1] *(11) Chillers*

Equipment Description *CRV Div 1 HVAC Unit*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *EFT*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks noted but do not adversely affect seismic capacity of anchorage.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-EAC-14A* Equip. Class[1] *(11) Chillers*

Equipment Description *CRV Div 1 HVAC Unit*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Noted 4" diameter piping system overhead that contains victaulic couplings. It is next to or possibly in contact with insulation on HVAC duct. HVAC duct is designed as seismic category 1. SWEs judge pipe - HVAC duct interaction minor. Piping is also anchored in numerous locations.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐
    Walls on either side of equipment are made of drywall. Modification #79N745 (Doc. #400) documented how the drywall system in the EFT satisfies seismic II over I criteria.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-EF-40A* Equip. Class[1] *(10) Air Handlers*

Equipment Description *Div II 250VDC Battery Room Ventilation*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *EFT*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks noted but does not adversely affect seismic capacity of anchorage.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-EF-40A* Equip. Class[1] *(10) Air Handlers*

Equipment Description *Div II 250VDC Battery Room Ventilation*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-EF-40B* Equip. Class[1] *(10) Air Handlers*

Equipment Description *Div 2 250 VDC Battery Room Ventilation*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *EFT*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Some of the anchorage welds have mild oxidation which was deemed acceptable.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-EF-40B* Equip. Class[1] *(10) Air Handlers*

Equipment Description *Div 2 250 VDC Battery Room Ventilation*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   A 2" FP line in the corner above the blower is anchored to the wall using U-bolts with angle and two anchors in the wall. Judged acceptably anchored by SWEs.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Drywall next to blower. Drywall is seismically qualified for II over I per Mod #79N745 (File #D400)

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-ERF-14A* Equip. Class[1] *(10) Air Handlers*

Equipment Description *CRV Div 1 Exhaust Recirc Fan*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *EFT*

Manufacturer, Model, Etc. (optional but recommended)

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-ERF-14A* Equip. Class[1] *(10) Air Handlers*

Equipment Description *CRV Div 1 Exhaust Recirc Fan*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-FE-11* Equip. Class[1] *(10) Air Handlers*

Equipment Description *Div 1 EFT Charcoal Air Filter Unit*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *EFT*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Shrinkage cracks noted but does not adversely affect seismic capacity of anchorage.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-FE-11* Equip. Class[1] *(10) Air Handlers*

Equipment Description *Div 1 EFT Charcoal Air Filter Unit*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Drywell noted and determined that it meets seismic II over I criteria based on documentation in modification 79N745 (Doc D400).

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Boot connecting train to blower unit has good flexiblity.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-SF-10* Equip. Class[1] *(09) Fans*

Equipment Description *11 Diesel Room Vent Fan*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *DG BLDG*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐
   Drawing R-81676-1 (NX-9290-3) shows connection of fan to skid. It was not used since inspection is of skid anchorage.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   SW motor and anchor has a hairline crack going through it . Since anchorage analysis concludes no tensile forces the crack is not a seismic issue.

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-SF-10* Equip. Class[1] *(09) Fans*

Equipment Description *11 Diesel Room Vent Fan*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-SF-9* Equip. Class[1] *(09) Fans*

Equipment Description *12 Diesel Room Vent Fan*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *DG BLDG*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☒ U☐ N/A☐
   Drawing NX-9290-3 anchor bolt configuration does not match field. Bolt pattern does match 1995 SEWS. See CAP 1345975.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *V-SF-9* Equip. Class[1] *(09) Fans*

Equipment Description *12 Diesel Room Vent Fan*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Noted room heater adequately supported via (2) - 1/2" diameter threaded rods.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Anchorage used for configuration verification is from S&A calc 91C2687. See attached calc. (10) - 3/4" diameter cast in place bolts.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *X30* Equip. Class[1] *(04) Transformers*

Equipment Description *Transformer*

Location: Bldg. *TB* Floor El. [redacted] Room, Area *Lower 4kV*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☐ N☒
   Four anchors on base plates for a total of (24) - 3/4" diameter concrete expansion anchors.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☐ N☐ U☐ N/A☒

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *X30* Equip. Class[1] *(04) Transformers*

Equipment Description *Transformer*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Cage is mounted to frame and frame is secured by same 24 anchors via structural members.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead duct and cable tray supports are ductile. Strap and light metal strut support systems are ductile.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Conduit has adequate flexibility.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/1/12

Scott Luckiesh 8/2/12

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Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *Y72* Equip. Class[1] *(04) Transformers*

Equipment Description *120 VDC Transformer Feeding Y73*

Location: Bldg. *EFT* Floor El. [redacted] Room, Area *All*

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y☒ N☐

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐

5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y☒ N☐ U☐ N/A☐

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   SQUG SEWS show four 3/8" diameter anchors on 18" x 15" spacing.

[1] Enter the equipment class name from Appendix B: Classes of Equipment.

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC)

Equipment ID No. *Y72* Equip. Class[1] *(04) Transformers*

Equipment Description *120 VDC Transformer Feeding Y73*

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
Rigid conduit is sufficiently stiff. Connection is rigid and acceptable.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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C
Area Walk-By Checklists (AWCs)

This appendix provides the Area Walk-By Checklists (AWC) completed as of November 9, 2012 for the MNGP. Table C-1 provides the a list of the Area Walk-By checklists, as well a list of SWEL items associated with each area, and whether or not the checklist was marked as "Y" or "N" (the checklist status). If a checklist status is marked "Y," then the SWEs concluded in the field that the equipment was seismically acceptable. If a checklist status is marked as "N," then the SWEs judged there was a potential adverse condition which required additional information to determine if the equipment was seismically adequate, complied with current site procedures and met current licensing basis requirements. None of the observations noted in the SWCs were found to be adverse seismic conditions that significantly affected or degraded safety related functions of equipment. Appendix F of this report provides the disposition of observations noted in the AWCs.

The AWCs are provided after this table, and are in the same chronological order as listed in the table below.

This table and the following AWCs include information on the location of SWEL components, which is considered Sensitive Unclassified Non-Safeguards Information (SUNSI), of which the loss, issue, modification, or unauthorized access can reasonably be foreseen to harm the safe operation of the nuclear plant. Pages which contain proprietary information have been marked, and the sensitive information has been redacted.

Pages which contain proprietary SUNSI information have been marked.

Table C-1: Monticello Completed AWCs

Area Walk-By Designation	Area Walk-by Checklist	Equipment Tag	Checklist Status (Y/N)
1	EFT	D100 D90	N

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Table C-1: Monticello Completed AWCs			
Area Walk-By Designation	**Area Walk-by Checklist**	**Equipment Tag**	**Checklist Status (Y/N)**
2	EFT-DIV1	V-EAC-14A V-EF-40A V-ERF-14A V-FE-11	N
3	EFT-DIV2	V-EF-40B	Y
4	EFT-N-DIV1	MCC-134 Y72	N
5	EFT	C-292 Y81	N
6	FUEL	P-11	Y
7	INTAK	AV-3147 AV-4024 P-109A P-111A P-111C	Y
8	PAB-11BATT	D1 D11	Y

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Table C-1: Monticello Completed AWCs			
Area Walk-By Designation	**Area Walk-by Checklist**	**Equipment Tag**	**Checklist Status (Y/N)**
9	PAB-13BATT	D31 D3A D3B D40 D54	N
10	PAB-CSR	C-253A C-30 C-303A C-39 C-41	N
11	PAB-CR	C-03 C-253D	N

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Table C-1: Monticello Completed AWCs			
Area Walk-By Designation	**Area Walk-by Checklist**	**Equipment Tag**	**Checklist Status (Y/N)**
12	RX-A_RHR	C-129A CV-1728 MO-1741 P-202C P-208A P-88A RV-1990 SV-1728 T-75A V-AC-5	N
13	RX-B_RHR	C-129B	Y
14	RX-HPCI	CV-2043 FT-23-82 MCC-312 MO-2063 P-209 PS-23-97A	N
15	RX-RCIC	MO-2078	N
16	RX-TORUS	C-290A LT-2996	Y

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Table C-1: Monticello Completed AWCs			
Area Walk-By Designation	**Area Walk-by Checklist**	**Equipment Tag**	**Checklist Status (Y/N)**
17	RX-RCIC	MO-2106 TS-13-79C	N
18	RX-TORUSCAT-E	AO-2379 MO-2010 SV-2379	Y
19	RX-TORUSCAT-NW	AO-4539	N
20	RX-EAST	C-122 K-10A N3347	N
21	RX-E-SDCR	MO-2012 MO-2030	Y
22	RX-WEST	CRD HCU W CRD16A CV-3-32A	Y
23	RX-W-SDCR	MO-2013	Y
24	RX-MG SET	MCC-313 P-73A	N
25	RX-SBLC	P-203A T-200	N

~~**SUNSI – Withhold from Public Disclosure**~~

Table C-1: Monticello Completed AWCs			
Area Walk-By Designation	**Area Walk-by Checklist**	**Equipment Tag**	**Checklist Status (Y/N)**
26	RX-SOUTH	C-55 LT-2-3-72A LT-2-3-72C	Y
27	TB-L4KV	152-505 BUS 15 X30	N
28	TB-SOUTH	MCC-133B	N
29	TB-11DG-DAY	T-45A	Y
30	TB-11DG-RM	BPM-1, Location 11 DG C-91 C-93 G31 G-3A K-8A K-8B N3346A N4301A P-222A T-79D	Y
31	TB-12DG-DAY	T-45B	N

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Table C-1: Monticello Completed AWCs			
Area Walk-By Designation	**Area Walk-by Checklist**	**Equipment Tag**	**Checklist Status (Y/N)**
32	TB-12DG-RM	G-3B T-80A	N
33	TB-SOUTH	T-ALTN2B	N
34	TB-U4KV	NA (See note below)	N
35	TB-11DG	V-SF-10 DM-8089J1	Y
36	TB-12DG	V-SF-9 DM-8089A1	Y

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *Battery Charger Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐
   HVAC duct protrudes in front of MCC-144. Unistrut supporting the duct is within 3/8" from front of MCC.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐
   Drywall in corner - does it meet seismic II/I criteria? This is next to the D70 battery charger.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *Battery Charger Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☐ N☒ U☐ N/A☐
   3/4" copper line identified with a two support rod support about 8' apart. Soldered union 3' from one support. Is this line designed for seismic category II/I, and if not, does this line present a spray problem on class I equipment if it ruptures?

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *Div 1*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *Div 1*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☐ N☒ U☐ N/A☐

   1) 3/4" diameter copper line with soldered connection. Line appears supported in horizontal direction but not vertically. Hand valve WDW 60 one elbow within 1/16" of conduit. This elbow might contact the conduit during a seismic event, breaking a solder joint and causing spray of saftey-related equipment.

   2) Fire station contains victaulic couplings. Station is bolted to wall. FP line runs up to roof of this floor and into the floor. No sign of lateral bracing. Three victaulic couplings are spaced closely together. Is this line adequate for seismic loads? Line is charged with water. Line is also in contact with conduit N43158 and in contact with HVAC duct support. (SWEs could not see lateral support above for FP line).

   3) 3" vertical pipe or conduit of unknown material has a two-bolt pipe coupling, runs floor to ceiling. It has two wall supports. The line cuts 1" into insulation on ESW line. Is this line adequate for seismic II/I? See penetration F2-3915.

   4) Two 3" diameter line connected to North wall (drywall) runs 5' along wall, then 3' into EFT room, and then vertically for 6' connects to ceiling. There are five elbows that appear to be cast iron threaded onto malleable steel pipe. There are no supports. Done under mod # E-81N300 (P.O. # 051926C-42)

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

   Shrinkage cracks noted everywhere on floor. Not of concern.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *Div 2*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *Div 2*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

   1) Fire hose station anchored to wall with (4) - 3/8" anchors. Fire hose station serves as anchor for fire hose stanchion. SWEs judge configuration adequate for anticipated seismic loads. This is not a flood hazard.

   2) Noted a 2" drain pipe with victaulic couplings. Pipe has one pipe support consisting of structural steel with U-bolt. Structural steel is anchored to wall with 2 bolts. SWEs judge piping configuration acceptable.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *North Room (Div 1)*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *North Room (Div 1)*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☐ N☒ U☐ N/A☐

   1) 4" diameter line from south wall is connected at wall with structural steel anchored to CIP concrete. It has victaulic coupling midspan and is anchored above MCC with U-bolt/I-beam support. Concern is differential displacement of south steel beam versus north CIP wall.

   2) 4" diameter piping containing victaulic couplings have good structural support to CIP. SWE's deemed adequate.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/6/12

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Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *3rd Floor*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐
   C-303B & C-304C are within 3/4" at top. Is this acceptable?

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *EFT* Floor El. [redacted] Room, Area[1] *3rd Floor*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Roof drain system contains victaulic couplings on 2" and 6". The 2" lines are well supported with 3" angle, welded to anchor plates. Plates are bolted to wall with 3/4" anchors. Pipes are all U-bolted. 6" line uses I-beams welded to anchor plate. SWEs judge this to be acceptable.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
   Fire hose station anchored to wall, via 4 bolts on inside.

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☐ N☒ U☐
   Floor to ceiling 6" roof drain has victaulic coupling 4' from top and has no bracing. Is this seismically acceptable?

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *Fuel* Floor El. [redacted] Room, Area[1] *Main Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   1) P-59 panel was checked for wall anchor. SWEs found panel is screwed to the wall plus an electrical box fitting is connecting it to a wireway.
   2) Cresent wrench was wedged underneath P-59. Crescent wrench was removed.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *Fuel* Floor El. [redacted] Room, Area[1] *Main Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☐ N☐ U☐ N/A☒
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? *Noted: An oil rag container and a tool box was on the floor next to P-11. However, these items were on the floor and will not affect the pump or its conduit in a seismic event.*	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Noted: Oil lines going into wall had painted over section of pipe at wall.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area[1] *Main Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   Pager telephone box is missing two of four anchors but not an issue as seismic capacity is greater than demand and the box is not essential.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   All equipment is well coated with little or no oxidation evident.

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   One strut support has some build-up of calcium or similar material but poses no hazard to nearby components.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐
   Scaffolding near, and over P-111D (WO 451760/44831), and near screenwash header, is unanchored and unbraced. It does not appear to be a credible hazard to pump or piping except for some instrumentation (e.g. FIR-4231). Staging area in SE corner of Intake sturcture is well managed in that the wheels are chocked and items are chained.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *INTAK* Floor El. [redacted] Room, Area[1] *Main Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   All piping is ductile (welded steel piping) or seismically supported.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   Fire header near support P-100C-H212 will collide with Backwash Strainer Flow and with hanger H212 which is designated Cat 1, Class C. There is minimal available space to generate significant inertial forces so this situation is deemed acceptable.
   MMCC-40 tool cart on west side has wheels chocked, so it is acceptable.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   House heating steam radiators, while flexible, do not pose a flooding issue as they are not likely to fail, and if they did, it would only introduce steam to Intake structure.

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/23/2012

Scott Luckiesh 8-14-2012

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Battery #11 (Door 110)*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   1) Box 1P3002 external anchorage not visible in tabs, connected to bus duct J512. SWEs deemed acceptable.
   2) FE-4617, two of four visible tabs w/ anchors. Deemed acceptable.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Battery #11 (Door 110)*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   No wet piping or fire protection lines in the room.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Battery #13 (Door 109)*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☐ N☒ U☐ N/A☐
   Check drawing details documentation for anchorage of base plate between D40 & D54.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐
   One loose nut for duct strap anchor above Door 109 needs to be tightened..

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Battery #13 (Door 109)*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   No hazards within area (room) itself.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   Identified saline eyewash bottle not properly engaged (snapped in). This issue is tracked by Seismic Walkdown Checklist for D3A.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

"Reset" label for D102 was found on the floor and was placed on top of D102.

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Cable Spreading Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐

   1) Cable tray GR405, GR404, and GR403 is in contact with HVAC duct registers in 4 of 5 cases.

   2) Cable tray MP404 & MP403 appears to be in contact w/ C-27.

   3) Some unistrut nuts are not fully engaged to support overhead lighting.

   4) Some cable tray cantilever supports have two screws while others have one. The SWEs judge the cable tray connection details as acceptable for seismic loading with trays have either one or two screws in the free end of the horizontal tray supports.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

   Overhead lighting near C-303A had two bolts for shear connection with one thru bolt additional with no bolts. SWEs judge the one thru-bolt adequate for seismic loads.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Cable Spreading Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   4" drain line well supported using two U-bolt vertical rod supports. SWEs judge acceptable.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   Cart had wheels locked and placed off in SW corner of CSR.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Noted: Single emergency light on pole is wedged between rigid conduit & HVAC duct. Not a seismic concern.

Verify coupling material on drain line and that allowable stress is not exceeded.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Control Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   1) Confirmed C-300 is anchored to floor so it cannot tip over onto C-08.
   2) Hole in base angle that's midspan in C-08 with no bolt. SWEs judge panel is still seismically anchored since panel has top bracing as well as anchor bolts in base.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *PAB* Floor El. [redacted] Room, Area[1] *Control Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☐ N☒ U☐ N/A☐

1) Copier is within 30" of C-08. SWEs judge copier cannot slide or tip over into C-08, so it is acceptable where it is located. Copier has low center of gravity and is on top of carpeting.

2) Emergency Equipment cabinet across the aisle in corner from C-13 and C-37, and in the corner, is potentially unanchored. If unanchored, then may have potential adverse seismic spatial interaction concern since it could tip over and impact C-13, which may adversely affect C-37 also.

3) Plant status board is anchored to wall with two screws. If board anchorage were to fail under seismic event, it may impact C-03. Is this board adequately restrained for seismic load?

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☐ N☒ U☐

Doors between front and back control room panels are not restrained. Doors are free to swing in seismic event and could impact side of C-02 or C-13. This is a potential seismic interaction issue.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Date: 08/02/12

Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RHR A Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RHR A Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *1) Vertical tube support (3") has two anchor bolts into the floor. Nuts are not tight to the base plates. Located next to RHR-18-1 handwheel.* *2) In the "A" RHR room, [redacted] South wall, No. 11 RHR pump seal cooling water supply (RBCCW), line support, there is a U-bolt that is missing a nut and the other nut is not fully engaged. On a second support, one nut is not fully engaged and the other nut is partially missing. Evaluate operability.*	Y☐ N☒ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RHR B Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RHR B Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *HPCI Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   small tray (tubing) system along West & South walls observed to have only one bolt per tray cantilever support supports are spaced every 6' - 8'. SWE's judge one bolt for anchoring tray to support as seismically adequate since trays are only approx. 6" to 1' wide.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐
   HVAC support on south end cuts into pipe insulation on line SC 16-8-ED approximately 1-3/8" and insulation appears to be 1-1/2" thick. Is this a seismic spatial interaction issue?

   Manual 1" Valve (PS-23-106) hand wheel in contact with ventilation duct. Will the interaction between the two cause a leakage from the valve?

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *HPCI Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☐ N☒ U☐ N/A☐

   Noted: Scaffolding clamped to HPCI stairwell as adequate for seismic I/II.

   1) MCC-312 is within zone of influence of R-8 cabinet for chemical control storage. SWEs cannot determine if R-8 is anchored to wall from inside. Cabinet is locked. Cabinet could tip over, impacting MCC-312 if not anchored.

   2) Also compressed bottle on cart is within a few inches of MCC-312. Wheels are locked. Does this meet station house keeping procedure? See CAP 1346030

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☐ N☐ U☒

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/14/12

Steve Kaas Steve Kaas 8/14/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. RX Floor El. [redacted] Room, Area[1] RCIC

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☐ N☒ U☐ N/A☐
   Reddish deposit noted on one of two anchor bolts on vertical support of structural angle supporting two pipelines. The lines are 1" diameter connecting SV-2849 to contaminated drain line and RCIC - (14) (2" diameter line) - "To RCIC pump suction". SWE's cannot judge condition of one anchor bolt that is covered over with corrosion deposits. Other anchor bolt is not corroded.

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RCIC*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *1) Block wall surrounding door-21 (East Div 1 RHR & CS App. R. Cable enclosure door). Block wall confirmed to be seismic category 1 per Drawing 36300-2-1.*	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

1) Noted: Unidentified liquid deposit on floor in corner near vicinity of RCIC-31 check valve.
2) Potentially loose screw on one panel of removable wall surrounding block wall (J114)
3) Red tape holding label onto C-128.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *Torus Bottom*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *Torus Bottom*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RCIC*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *RCIC*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☐ N☒ U☐ N/A☐

   1) In the RCIC room, [redacted], there is a chain used to secure H-113 (gib crane) that does not restrain it from impacting the rod hanger supporting the pipe below. Is this configuration acceptable as-is or do we need to secure H-113 in a different way to prevent a seismic interaction issue? H-113 is within ~2" of the rod hanger.

   2)In the RCIC room, [redacted], there is a rod hanger for the RCIC steam supply line that is in contact with a pipe. Is this acceptable?

   3)In the RCIC room, [redacted], there is a rod hanger on the RCIC pump discharge that appreas to be in contact with the RCIC steam supply line. Is this acceptable?

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☐ N☒ U☐ N/A☐

   In the RCIC room, [redacted], there is a chain used to secure H-113 (gib grane) that does not restrain it from impacting the rod hanger supporting the pip below. Is this configuration acceptable as-is or do we need to secure H-113 in a different way to prevent a seismic interaction issue? H-113 is within ~2" of the rod hanger.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *Torus Catwalk East*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *Torus Catwalk East*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   Steel water bucket (5 gal.) on platform not secured but will not cause adverse seismic interaction.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *Torus Catwalk Northwest*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☐ N☒ U☐ N/A☐

   1) Tie wrap used to anchor electrical cable to conduit 2G4010.

   2) Two boxes on ceiling appear to be unanchored and supported by nearby unistrut. Rigid conduit from boxes to unistrut are 2G4013 & 2G4014.

   3) Drain line (1 of 2 mentioned above) is in contact with tube tray. Is this acceptable?

   4) Crack in path of anchor for ceiling support on solenoid valve SV-4541 & SV-4592.

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *Torus Catwalk Northwest*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☐ N☒ U☐ N/A☐
   Floor drains in contact with each other could be potential flooding issue. It is located between Bay 6 & Bay 7 (Penetration RB609 & RB603). It is a Welded pipe and rod hung.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. RX Floor El. [redacted] Room, Area[1] East

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐
   Cable ties are fastening a flexible conduit to a cable tray support. Initiated CAP 1346170.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *East*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? *1) Found two pipes suspended from bent rod hangers above the HCU's (see photos attached). The rods are bent to fit around a conduit near the ceiling. One rod hanger is supporting an abandoned pipe which is capped at both ends.* *2) The other rod hanger supports a heating steam line. This is not a seismic concern. However, is this configuration adversely affecting the conduit?*	Y☐ N☒ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *East SD Cooling Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐
   (See MO-2030 sheet)

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *East SD Cooling Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   1) Piping penetration for FZ-1380 is in a seismic category 1 wall, deemed acceptable.
   2) (2) Insulated piping lines: CST to "A" containment spray / CST supply, lines are welded steel pipe, deemed acceptable.
   3) Floor drain line with welded joints adjudged acceptable.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   Moveable ladder is in corner of area but it will not have an adverse seismic interaction as it is outside a h + 1' distance.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/1/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *West*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   Tall cabinet near C-216 is 50" tall x 24" x 24". The wheels on the cabinet are locked. Cabinet could tip over. C-216 verified as Non-Safety Related. Therefore cabinet is adjudged as not an adverse seismic interaction issue.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *West*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	Y☒ N☐ U☐ N/A☐
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Y☒ N☐ U☐ N/A☐
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?	Y☒ N☐ U☐ N/A☐
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *West SD Cooling Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *West SD Cooling Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas Steve Kaas 8/1/12

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *MG Set*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *MG Set*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☐ N☒ U☐ N/A☐

   1) FP line 3" - 4" diameter with victaulic couplings near F-20355 and F-20360. FP line has threaded couplings that might be cast iron. Some couplings are midspan.

   2) The line to a heat-activated-device (HAD) for FP system is in contact with Service Air Line.

   3) Smaller cast iron FP line has same threaded couplings as 3" - 4" FP line by 12 MG Set.

   4) Large line with victaulic couplings (10" - 12" - Roof drain) comes from wall, takes 90° turn and enters ceiling. SWEs judge acceptable for seismic loads since relative displacements of wall and ceiling are negligible due to connection design between ceiling and wall.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

   1) Block wall noted around Door-73 is seismic category 1 per drawing NF-36300-1-2 (South wall).

   2) Electrical box for penetration F2-0350 does not have anchorage in block wall. Box is connected to conduit 1K3100. Block wall is seismic category 1 per drawing NF-36300-1-2.

Comments (Additional pages may be added as necessary)

Housekeeping – FME (rags or paper) was identified behind C283A.

In area walked by is a FP nozzle in contact with cable tray adjacent to Generator 11. Cable tray support is mounted to wall. The fire protection line is not charged since it is a deluge system for motor Generator 11.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *SBLC Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐
   See scaffold discussion for SLC tank T-200 and pump P-203A.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *SBLC Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Fire protection line and welded steel floor drain line are adequate. Roof drain line is mechanically coupled but well supported. If it leaks water it is collected through floor drains.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
   Chemical control storage location flammables cabinet MMCC-08 is located 10' away from SLC pump. The cabinet is not anchored and contains lubricants and oil products. If this cabinet tips over, there is no viable ignition source, so the configuration is deemed adequate.

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   As an observation, the TH-4 Temporary Power Pack is unanchored and is next to MCC-111 (non-essential). Flammable cabinet is also not anchored. Neither of these situations poses an interaction hazard of Seismic Category I components since they are not in close proximity.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *South*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   MCC 122 is top braced and anchored, so it is seismically acceptable. ATWS channel A cabinet is anchored.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
   Checked CST pressurizing to B RHR Containment Spray line for straps to brackets and found them in place, so it is acceptable.

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   HVAC support straps are ductile. All piping is welded steel and ductile. Junction boxes are anchored to reinforced concrete wall.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐
   Cable trays are strut supported and ductile, thus acceptable. Per drawing NF-36300-1-2, Fig. 3-1D all masonry block walls are safety related and seismically evaluated.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *RX* Floor El. [redacted] Room, Area[1] *South*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   FP and floor drains piping are ductile so no credible potential for rupture leading to flooding.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   Block-out on south wall is not a hazard due to arching action and no equipment is found in the area.

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *Lower 4KV Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   Bent rungs on cable ladder trays evaluated by NCI-89-052. Judged acceptable.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐
   1) Hoist is resting on LC-101 480V Load Center. It also poses an impact hazard, and has open s-hooks.
   2) Fire extinguisher near non safety 4.16kV 4kVB-06 cubicle is an interaction hazard as it can fall off hook.
   3) Hoist restraint on non-essential LC-109 should be replaced with a restraint more appropriate than wire.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *Lower 4KV Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Piping in south end of room is non-seismic piping but is not an adverse seismic interaction because the pipe is welded steel.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
   H_2 line and oil/H_2 lines are welded steel so there are no adverse seismic interactions that could cause a fire.

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   Non-essential XFMR X-90 has missing bolts. There is an existing W.O. 34875 noting this condition.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐
   Junction Box NJ5220 near 2R Aux. Trans. Sudden pressure relay has no external anchorage. However, the junction box is very secure. Adjudged adequate.

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/1/12

Scott Luckiesh 8/1/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *South*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐
   Lighting is pendant-hung and can swing into MCC-133B. Cable trays are supported by strut systems which are adequate.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐
   Pendant light is an interaction hazard to conduit connected to MCC-133A.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *South*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   No items in room.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *11 DG Day Tank Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   Drain line is deemed acceptable given short span.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *11 DG Day Tank Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Fire protection line is seismically supported and a pre-action system. Deemed acceptable.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
   Oil catch basin (can) is on floor but there are no ignition sources in room. Deemed acceptable.

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/1/12

Scott Luckiesh 8/1/12

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Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *11 DG Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   1) Heater on west wall should be chained to something substaintial, not a conduit.
   2) TH-3 (temperary power pack) should be chained to hook on south wall.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   1) Heating steam fans should be braced. This is an enhancement and not a seismic concern.
   2) Drain piping with Victaulic couplings deemed acceptable. The 12" line attached to Turbine Building roof may at worst leak through couplings but there are two drains in room to handle roof drain leakage should it occur.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *11 DG Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Fire protection piping is seismically supported and is also pre-action. Discussion on piping is provided on previous page.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
   DG fuel reservoir is an integral part of the skid, and not an adverse seismic interaction.

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐
   See discussion for TH-3 and heater blower on previous page.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/1/12

Scott Luckiesh 8/1/12

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Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *12 DG Day Tank Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *12 DG Day Tank Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☐ N☒ U☐
FP line is in contact with DO fuel line. See CAP 1345971.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *12 DG Room*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☐ N☒ U☐ N/A☐
   1) Noted: Battery on Lister diesel inspected & confirmed battery base is screwed in from bottom with at least (2) - 1/4" diameter screws.
   2) Main FP station has two dead weight supports with no anchorage to floor. Additional support nearby is bolted to floor & captures FP station using 1/2" plate to capture pipe. Is this configuration acceptable considering seismic anchorage?
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   1) Heating steam fans should be braced. This is an enhancement and not a seismic concern.
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *12 DG Room*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   FP piping branch line by engine control panel noted to be within 1" of HVAC duct. HVAC duct appears to be seismic cat 1 so relative movement of it and FP line movement judged minor in all cases. SWE's judge acceptable.
   Other FP lines noted within 1" of other sections of HVAC duct also judged acceptable by SWE's.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 05/02/12

Steve Kaas Steve Kaas 5/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *South*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐
   HVAC has 5' free end cantilever from last support and entire HVAC run is supported from cable tray KA432. Is this configuration required to meet seismic 2/1 criteria?

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *South*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   Large SW line SW-1 (24" diameter line) - Pipeline was verified as meeting seismic category 1 requirements, as documented in calculation 08-182.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Housekeeping: Choker was found on pipe above TB-935 scaffolding.

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *Upper 4kV*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☒ U☐ N/A☐

   1) Rod for conduit support for conduits B933A & 2 other conduits is in contact with HVAC duct. Duct is moving just due to air flow & causes rod to be moved with it. Rod appears to be bent, possibly because anchor point for rod is inside footprint of HVAC duct.

   2)HVAC duct above 4kV switchgear door has 4 straps holding up 30" x 18" duct section of 10' in length. Straps have one screw connecting it to duct.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☐ N☒ U☐ N/A☐

   1) Lighting is hung on a rod on the rear side of Bus 16. It is laterally supported to prevent sway by one wire tied of grating. SWEs are concerned that there are not enough lateral supports. Light is 21' long.

   2)Fire extinguisher by 4kV door has small lip holding it to wall. Need to check vertical seismic acceleration to see if uplift can occur. Fire extinguisher is 34" away from 16 Bus.

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☐ N☒ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *Upper 4kV*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   No FP lines or other lines containing water were seen.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐
   Noted: Hydrogen & oil line running vertically in back of room. Lines are well supported and go into concrete.

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☐ N☒ U☐ N/A☐
   1) SWE's noted good tie off of 1/2 ton crane H-20B
   2) Ladder in back of LC-102 is on sloping hook. Hooks do not have much slope.

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☐ N☒ U☐
   1) 12 DG Potential Transformer (G-3B/Pot) is above 4kV cubicle 152-602. Is this accounted for in anchorage calc? PT appears to be bolted to top of cubicle with angles.
   2) Bus-12 Pot (although it is NSR) is on top of cubicle 152-201 SWEs cannot verify it is anchored to top of cubicle. Could Bus-12 Pot be seismic II over I concern by impacting Bus 14 which is connected to Bus 16.

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/02/12

Steve Kaas Steve Kaas 8/2/12

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The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *11 DG*

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☒ N☐ U☐ N/A☐
   Drain line from roof is cast-iron but well supported so it won't fail or leak. Steam line will not fail but an enhancement would be to brace heater fan. If leakage were to occur there is a floor drain to collect water.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *11 DG*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐
   See discussion for roof drain line on previous page.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Walter Djordjevic* Date: 8/2/12

Scott Luckiesh 8/2/12

~~SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE~~

The remaining pages are withheld from public disclosure.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. TB Floor El. [redacted] Room, Area[1] 12 DG

Instructions for Completing Checklist

This checklist may be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y☒ N☐ U☐ N/A☐
   Room Heater noted but adequately supported by (2) - 1/2" diameter threaded rods.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y☒ N☐ U☐ N/A☐

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y☐ N☐ U☐ N/A☒

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y☒ N☐ U☐ N/A☐

[1] If the room in which the SWEL item is located is very large (e.g., Turbine Hall), the area selected should be described. This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

Status: Y☒ N☐ U☐

Area Walk-By Checklist (AWC)

Location: Bldg. *TB* Floor El. [redacted] Room, Area[1] *12 DG*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y☒ N☐ U☐ N/A☐

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y☒ N☐ U☐ N/A☐

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y☒ N☐ U☐ N/A☐

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y☒ N☐ U☐

Comments (Additional pages may be added as necessary)

Evaluated by: *Bruce M. Lory* Bruce M. Lory Date: 08/01/12

Steve Kaas 8/1/12

~~SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE~~

The remaining pages are withheld from public disclosure.

~~**SUNSI – Withhold from Public Disclosure**~~

D

Plan for Future Seismic Walkdown of Inaccessible Equipment

This section discusses the plan for future seismic walkdowns to complete the inaccessible items from SWEL 1 which were deferred either for drywell entry or cabinet internal inspection. Table D-1 summarizes the reasons each item is inaccessible during normal plant operation.

This table and the following AWCs contain Sensitive Unclassified Non-Safeguards Information (SUNSI), of which the loss, issue, modification, or unauthorized access can reasonably be foreseen to harm the commercial interests of NSPM. Pages which contain proprietary information have been marked.

As shown in the table below, 22 items have been deferred until a refueling outage or an appropriate time when the equipment is accessible. Inaccessibility of this equipment was either based on the location of the equipment (environment that posed personnel safety concerns while the unit is operating), or due to the timing of the issuance of the clarification on internal electrical cabinet inspections and the electrical safety hazards posed while the equipment is energized.

All items will be walked down by the end of Refueling Outage R26 in Spring 2013. An updated submittal report will be provided 60 days following the end of RFO R26.

Table D-1: Monticello Deferred Equipment List

Equipment Tag	Description	Area Walk-By Checklist	Area Walk-By Completed	Reason for Inaccessibility
152-505	4KV TO P-208A 11 Core Spray Pump	TB-L4KV	Yes	De-energization Required
AO-2-80A	INBOARD MSIV	RX-DRYWELL	No	Drywell Entry Required
BUS 15	4160 SWITCHGEAR	TB-L4KV	Yes	De-energization Required
C-253D	DIV II LOLO SET BYPASS PANEL	PAB-CR	Yes	Internal Cabinet Inspection Required
C-91	11 DIESEL GEN ELECTRICAL	TB-11DG-RM	Yes	De-energization Required

~~SUNSI – Withhold from Public Disclosure~~

Table D-1: Monticello Deferred Equipment List				
Equipment Tag	**Description**	**Area Walk-By Checklist**	**Area Walk-By Completed**	**Reason for Inaccessibility**
C-93	11 DIESEL GEN CONTROL	TB-11DG-RM	Yes	De-energization Required
D11	DIV I 125VDC DISTRIBUTION CENTER	PAB-11BATT	Yes	De-energization Required
D40	125VDC SWING CHARGER FOR #11 AND #12 BATTERIES	PAB-13BATT	Yes	Internal Cabinet Inspection Required
D54	SWING CHARGER D3A, D3B 13 BATTERY	PAB-13BATT	Yes	Internal Cabinet Inspection Required
D90	CHARGER, SWING D6A,D6B (16) BATTERY	EFT	Yes	Internal Cabinet Inspection Required
G31	#11 DG NEUTRAL GROUNDING CABINET	TB-11DG-RM	Yes	De-energization Required
MCC-133B	480V AC MOTOR CONTROL CENTER 133B	TB-SOUTH	Yes	De-energization Required
MCC-134	480 V MCC (B34)	EFT-N-DIV1	Yes	Internal Cabinet Inspection Required
MCC-312	DIV 2 (HPCI) 250V DC MOTOR CONTROL CENTER 312	RX-HPCI	Yes	De-energization Required
MCC-313	DIV 1 250V DC MOTOR CONTROL CENTER 313	RX-MG SET	Yes	Internal Cabinet Inspection Required
MO-2374	MAIN STEAM LINE DRAIN - OUTBOARD	RX-STEAMCHASE	No	High Radiation during Operation
N3346A	11 EDG AIR CMPSR 1 (K-8A) LOCAL DISCONNECT SWITCH	TB-11DG-RM	Yes	Internal Cabinet Inspection Required

~~SUNSI – Withhold from Public Disclosure~~

Table D-1: Monticello Deferred Equipment List				
Equipment Tag	**Description**	**Area Walk-By Checklist**	**Area Walk-By Completed**	**Reason for Inaccessibility**
N3347	MOTOR STARTER FOR K-10A	RX-EAST	Yes	Internal Cabinet Inspection Required
N4301A	11 EDG AIR CMPSR 2 (K-8B) LOCAL DISCONNECT SWITCH	TB-11DG-RM	Yes	Internal Cabinet Inspection Required
P-73A	480V POWER PANEL	RX-MG SET	Yes	Internal Cabinet Inspection Required
RV-2-71A	A SRV	RX-DRYWELL	No	Drywell Entry Required
Y81	DIV 2 120VAC CLASS 1E INVERTER	EFT	Yes	Internal Cabinet Inspection Required

~~**SUNSI Information – Withhold from Public Disclosure**~~

E
Peer Review Report

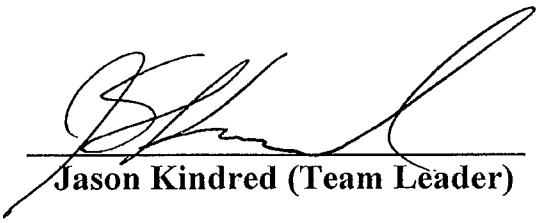
This appendix includes the Peer Review Team's report, including the signed Peer Review Checklist for the SWEL from Appendix E, *Checklist for Peer Review of SSC Selection*, of Reference 1.

Table E-1 of this appendix includes information on the location of SWEL components, which is considered SUNSI, of which the loss, issue, modification, or unauthorized access can reasonably be foreseen to harm the safe operation of the nuclear plant. Pages which contain proprietary SUNSI information have been marked, and the sensitive information has been redacted.

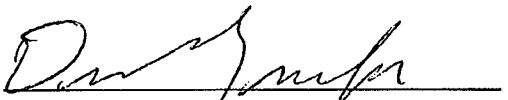
Peer Review Report
for
Near Term Task Force (NTTF) Recommendation
2.3
Seismic Walkdown Inspection
of
Monticello Nuclear Generating Plant

November 15, 2012

Peer Reviewers:



Jason Kindred (Team Leader) 11-15-12 **Date**



Dennis Zercher 11-15-2012 **Date**

1 Introduction

Overview

This report documents the independent peer review for the Near Term Task Force (NTTF) Recommendation 2.3 Seismic at the Monticello Nuclear generating Plant. The peer review addresses the following activities:

- Review of the selection of the structures, systems, and components, (SSCs) that are included in the Seismic Walkdown Equipment List (SWEL).
- Observation of the seismic walkdowns on August 1, 2012 and adherence to the Seismic Walkdown Guidance (SWG)[1].
- Review of a sample of the checklists prepared for the Seismic Walkdowns & Walk-Bys.
- Review of any licensing basis evaluations.
- Review of the decisions for entering the potentially adverse conditions into the plant's Corrective Action Plan (CAP).
- Review of the final submittal report

The peer reviewers are Jason Kindred and Dennis Zercher, both Xcel Energy employees. Jason Kindred is designated as the Peer Review Team Leader. Neither of these engineers is involved in the seismic walkdown inspection process so that they can maintain their independence from the project. Dennis Zercher is an degreed structural engineer, has over twenty five years of nuclear seismic experience and has completed the SQUG Walkdown Screening and Seismic Evaluation Training course as a Seismic Capability Engineer. Jason Kindred is degreed mechanical engineer with over twenty years of nuclear engineering experience and is a licensed Senior Reactor Operator.

The SWEL development was performed by Robert Walstrom. The Peer Review team was involved in the review of SWEL 1 and SWEL 2. The Peer Review ensured the lists covered various systems in the plant and all five safety functions listed in Section 3 of EPRI Technical Report 1025286. All items identified by the Peer Review team were corrected prior to commencing the in-plant walkdowns. None of the issues identified were significant enough to warrant entry into the corrective action process. The completed SWEL Peer

[1] EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012.

Review Checklist is found in Attachment 1. The discussion for the SWEL development peer review is found in Section 2.

The peer review of the seismic walkdown inspection started on August 24, 2012 with a peer check of the actual walkdowns. Dennis Zercher joined the walkdown teams for a portion of the day's planned walkdowns to observe the conduct of walkdowns and adherence to the SWG. There were two walkdown teams. Interviews were conducted by Dennis Zercher with the various members of both the SWE inspection teams to ascertain procedural compliance with the SWG. The discussion of the sample Seismic Walkdown Checklists (SWCs) and Area Walkdown Checklists (AWCs) is provided in Section 3.

No issues were identified which challenged the current licensing basis.

2. Peer Review – Selection of SSCs

Purpose

The purpose of this section is to describe the process to perform the peer review of the selected structures, systems, and components, (SSCs) that were included in the Seismic Walkdown Equipment List (SWEL).

Selection of SSCs

The guidance in EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012, Section 3: Selection of SSCs was used as the basis for this review.

This peer review was based on interviews with the following individual who was directly responsible for development of the SWEL 1:

- Mr. Robert Walstom, Retired SRO/Shift Manager

This peer review utilized the checklist shown in the SWG, Appendix F: Checklist for Peer Review of SSC Selection.

For SWEL 1 development, the following actions were completed in the peer review process:

- Verification that the SSCs selected represented a diverse sample of the equipment required to perform the following five safety functions:
  - Reactor Reactivity Control (RRC)
  - Reactor Coolant Pressure Control (RCPC)
  - Reactor Coolant Inventory Control (RCIC)
  - Decay Heat Removal (DHR)
  - Containment Function (CF)

- Verification that the SSCs selected include an appropriate representation of items having the following sample selection attributes:
  - Various types of systems
  - Major new and replacement equipment
  - Various types of equipment
  - Various environments
  - Equipment enhanced based on the findings of the IPEEE
  - Risk insight consideration

For SWEL 2 development, the Peer Review process verified that appropriate justification was documented for spent fuel pool related items that were not added to the SWEL 2.

Peer Review Findings – Selection of SSCs

This peer review found that the process for selecting SSCs that were added to the SWEL was consistent with the process outlined in the SWG Section 3: Selection of SSCs.

- The SSCs selected represented a diverse sample of equipment required to perform the five safety functions
- The SSCs selected included a sample of items that represents each of the desired attributes/considerations.

The peer review checklist is attached to this document with additional comments that the Peer Review team provided back to the SWEL developer. All of these comments were verified by the Peer Review team to have been incorporated into the SWEL prior to the commencement of in-plant walkdowns. None of the issues identified were significant enough to warrant entry into the Corrective Action Process.

Resolution of Peer Review Comments – Selection of SSCs

All comments requiring resolution were incorporated prior to completion of this in-plant walkdowns. None of the issues identified were significant enough to warrant entry into the Corrective Action Process.

Conclusion of Peer Review – Selection of SSCs

This peer review concludes that the process for selecting SSCs to be included on the seismic walkdown equipment list appropriately followed the process outlined in the SWG, Section 3: Selection of SSCs. It is further concluded that the SWEL sufficiently represents a broad population of plant Seismic Category 1 equipment and systems to meet the objectives of the NRC 50.54(f) Letter.

3. Review of Sample Seismic Walkdown & Area Walk-Bys Checklist

Overview
An interview was conducted by Dennis Zercher with the SWE inspection teams in accordance with the SWG requirements. The interviews were conducted during during field walk downs for both an equipment walk down and an area walk down. The interview with Bruce Lori and Steve Kaas of one SWE walkdown inspection team occurred on July 26, 2012. The interview with Walter Djordjevic and Scott Luckiesh of the other SWE inspection team occurred on August 1, 2012.

A peer review of the sample SWCs and AWCs was performed on August 24, 2012.

Peer Review Findings – Seismic and Area Walkdown Checklists

The sample Checklists that were reviewed includes both Seismic Walkdown Checklists and Area Walkdown Checklists. Table 3-1 lists the SWC and AWC samples that were reviewed, which represent approximately 18% of the total Checklists.

Table 3-1: *Table of SWC and AWC Samples from Seismic Walkdown Inspection*

Equipment Identification	Equipment Class (GIP)	Walkdown Item	50% Anchor Verif. (Y/N)	Observations
D-31	14 – Distribution Panels	Div 1 125/250 VDC Distribution Panel	Y	No concerns
D-10	16 – Battery Chargers and Inverters	125 VDC Charger for #11 Battery	Y	No concerns
CRD HCU W	18 – Instrument on Racks	CRD Hydraulic Control Units West Side	Y	CST line in contact with column – existing CAP 129196 addresses concern
C-39	20 – Instrument and Control Panels and Cabinets	HPCI Relay Panel	Y	No concerns
C-253A	20 – Instrument and Control Panels and	SRV Panel	Y	No concerns

	Cabinets			
AO-4539	07 – Fluid-Operated Valves	Hard Pipe Vent Inboard Isolation Valve	N	Electrical tape used t secure excess cable – CAP 1346939 addresses this concern
MCC-313	01 – Motor Control Centers	Div 1 250 VDC Motor Control Center 313	Y	No concerns
LT-2-3-72C	18 – Instruments on Racks	LoLo Reactor Level ECCS Initiation	N	No concerns
K-10A	12 – Air Compressors	RHRSW Aux Air Compressor	Y	No concerns
G-3B	17 – Engine-Generators	12 Emergency Diesel Generator	Y	No concerns
D-3A	15 – Batteries on Racks	Div 1 125/250 VDC Battery	Y	Excessive projection of anchor bolt no addressed – anchorage judged adequate, see appendix F.
V-AC-5	10 – Air Handlers	RHR A Air Handler	Y	No concerns
P-111A	06 – Vertical Pumps	11 ESW (EDG-ESW) Pump	Y	No concerns
MO-2063	08 – Motor-Operated and Solenoid-Operated Valves	HPCI CST Suction valve	N	No concerns
Y71	16 – Battery Chargers and Inverters	DIV 1 120VDC Class 1E Inverter	Y	No concerns

Area Walkdown Description	**Observations**
Intake Structure [redacted]	No concerns
Reactor Bldg [redacted] – HPCI Room	Bottle cart next to MCC – CAP 1346030 written to address concern
Reactor Bldg [redacted] – RCIC	Reddish deposit on anchor bolts- CAP 1346642

Room	written to address concern
Reactor Bldg [redacted] – SBLC area	Potential seismic interaction from scaffold – CAP 1347002 written to address concern
TB [redacted] – 11 DG Day Room	No concerns
TB [redacted] – 12 DG Room	No concerns
Reactor Bldg [redacted] – B RHR Room	No concerns
TB [redacted] – Lower 4KV	Potential interaction hazards from hoist on load center and fire extinguisher on electrical cubicle – CAP 1349068 written to address concern. Nonessential transformer missing bolts – existing work order addressing this condition.
PAB [redacted] – 13 Battery Room	Loose nut on duct strap – work request was initiated to correct.

Evaluation of Findings – Seismic and Area Walkdown Checklists

There were no findings that challenged the licensing basis. Tables 5-2 and 5-3 of the Seismic Walkdown Report (final submittal report) provide the lists of the issues encountered for the equipment seismic walkdowns and area walk-bys.

There were very few seismic housekeeping instances found throughout the plant and it can be concluded that MNGP implements their seismic housekeeping program consistently.

The Seismic Walkdown Checklists documented the details of the identified issues, the action taken and the conclusion of the SWE inspectors.

The Peer Review team verified that all technical issues identified that required evaluation or resolution were entered into the Corrective Action Program.

Some minor administrative issues were identified in the review and provided back to the team. These issues did not warrant entry into the CAP.

The peer reviewers consider the judgments made by the SWEs to be appropriate and in concurrence with the SWG.

Resolution of Peer Review Comments – Seismic and Area Walkdown Checklists

The Peer Review team verified that all technical issues requiring evaluation or resolution were entered into the Corrective Action Program.

Conclusion of Peer Review – Seismic and Area Walkdown Checklists

This peer review concluded that Seismic and Area Walkdown checklists properly documented and dispositioned the issues identified by the engineers performing the walkdowns.

4. Review of Licensing basis Assessments

Section 6 of the final submittal report was reviewed to assess Seismic Licensing Basis Evaluations. The report documents that all potentially adverse seismic conditions that were identified during plant walkdowns were entered into the corrective action process. Therefore, no Licensing Basis Evaluations were needed.

The Peer Review Team determined that while this was a conservative method to complete this portion of the evaluation, it did not violate the EPRI guidance document.

Tables 5-2 and 5-3 of the Seismic Walkdown Report were reviewed by the Peer Team, and it was concluded that the completed and planned corrective actions for the issues identified were appropriate to address the conditions identified.

5. Review Final Submittal Report and Sign-Off

The entire final submittal report has been reviewed by Dennis Zercher and Jason Kindred and found to meet the requirements of the EPRI 1025286 – Seismic Walkdown Guidance.

The Peer Review concurs that the objectives and requirements of Enclosure 3 to 10CFR50.54(f) letter[2] are met.

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[2] NRC Letter to All Power Reactor Licensees et al., "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendation 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," Enclosure 3, "Recommendation 2.3: Seismic," dated March 12, 2012

Attachment 1: Peer Review Checklist for SWEL

Peer Review Checklist for SWEL #1

Instructions for Completing Checklist

This peer review checklist may be used to document the review of the Seismic Walkdown Equipment List (SWEL) in accordance with Section 6 Peer Review. The space below each question in this checklist should be used to describe any findings identified during the peer review process and how the SWEL may have changed to address those findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Were the five safety functions adequately represented in the SWEL 1 selection? Y☒ N☐

The Peer Review Team reviewed the list of selected equipment to validate the assignment of the correct safety functions to the components. The Peer Review Team agrees that the four safety functions specified in the EPRI guidance as well as the containment function are well represented. The following specific comments are provided from this review:

- Item #38 – The Peer Review Team does not agree that AV-4024(#13 ESW pump disch air vent valve) supports the Reactivity Control Safety Function (ESW not needed for Scram or SBLC).
- Item #38, 40, 45, 93, 95, 147, 152, 182, 183, 184, 204, 205, 208, 217, 219, 273, 276, 283, 284, 296, 451, 452, 474, 477, 493, 494, 495 – The Peer Review Team does not agree that this equipment supports the Reactor Pressure Control Safety Function. Table B-2 from the EPRI guidance document lists SRV's, ADS, and MSIV's as supporting this function. AC power is not really required for these components to perform their function. The exception may be ADS, as it needs as signal showing that RHR or CS pumps are running, but this is a remote or distant relationship to the depressurization function.
- Item #227 – Since MCC-313 provides power to the Main Steam Line Drain Outboard Isolation valve, it could be considered to support the Reactor Pressure Control Safety Function (similar to MSIV).

2. Does SWEL 1 include an appropriate representation of items having the following sample selection attributes:

a. Various types of systems? Y☒ N☐

The Peer Review Team reviewed the list of selected equipment to validate that a sufficient sampling of plant systems related to the safety functions was represented. The list below shows the count of components in each of MNGP's systems. The Peer Review Team concluded that the a sufficient sampling of the various plant systems was represented.

Peer Review Checklist for SWEL #1

System	Title	Count
125	125 VDC	3
250	250 VDC	8
480	480 V Station Auxiliary	5
24V	24 VDC	
4KV	4 KV Station Auxiliary	1
AIR	Instrument & Service Air	
AN2	Alternate N2	1
APR	Auto Pressure Relief	4
ASD	Alternate Shutdown	1
CRD	Control Rod Drive Mechanism	2
CRH	Control Rod Drive Hydraulics System	1
CSP	Core Spray Cooling System	3
CST	Condensate Storage	
DAC	Drywell Atmosphere Cooling	
DGN	Diesel Generators	14
DOL	Diesel Oil Storage	3
EFT	CRV – EFT	5
ESW	EDG Emergency Service Water	1
FSW	EFT Emergency Service Water	2
HOA	H2-O2 Control Analyzing	
HPC	High Pressure Coolant Injection	6
HTV	Heating & Ventilation	5
LRW	Liquid Radwaste	1
MST	Main Steam	
NIP	Power Range Monitors	
NIS	Start Up Range Monitors	
PCS	Main Steam Pressure Control	
PCT	Primary Containment	4
PPS	Plant Protection	2
RCI	Reactor Core Isolation Cooling System	3
REC	Reactor Recirculation System	1
RHR	Residual Heat Removal	9
RLC	Reactor Level Control	
RMC	Reactor Manual Control	
RPI	Rod Position Information System	
RPP	Reactor Protection System Power Supply	
RPV	Reactor & Vessel Assembly	3
RSW	RHR Service Water	5
RWC	Reactor Water Cleanup	
SCT	Secondary Containment	
SEL	Security Diesel	
SLC	Standby Liquid Control System	2
SLG	Security Facility Lighting & Grounding	
UAC	Instrument AC & Uninterruptible AC	2

b. Major new and replacement equipment? Y☒ N☐

The Peer Review Team validated that the list of selected equipment contained a sufficient sampling of plant equipment that has been replaced in recent years. This included large components such as an RHR and an RHRSW Pump.

Peer Review Checklist for SWEL #1

c. Various types of equipment? Y☒ N☐

The Peer Review Team reviewed the list of selected equipment against Appendix B (Classes of Equipment) to the EPRI Seismic Walkdown Guidance. The following is a summary of the sampling of equipment classified on the current list.

#	Description	Count
0	Other	0
1	Motor Control Centers and Wall-Mounted Contactors	4
2	Low Voltage Switchgear and Breaker Panels	1
3	Medium Voltage, Metal-Clad Switchgear	2
4	Transformers	3
5	Horizontal Pumps	5
6	Vertical Pumps	6
7	Pneumatic Operated Valves.	9
8	Motor-Operated and Solenoid Operated Valves	10
9	Fans	2
10	Air Handlers	8
11	Chillers	0
12	Air Compressors	3
13	Motor Generators	0
14	Distribution Panels and Automatic Transfer Switches	4
15	Battery Racks	3
16	Battery Chargers and Inverters	4
17	Engine Generators	2
18	Instrument Racks	11
19	Temperature Sensors	0
20	Instrument and Control Panels	13
21	Tanks and Heat Exchangers	8

The Peer Review Team noted the following issues that require follow up:

- The list did not contain any equipment from #11 (Chillers), #13 (Motor-Generators), or #19 (Temperature Sensors).
- Item # 487 on the MNGP SWEL (V-EAC-14A) is classified as an air-handler, when it may be more appropriate to classify it as a chiller.

d. Various environments? Y☒ N☐

The Peer Review Team reviewed the list of selected equipment against criteria for selection listed in the EPRI Seismic Walkdown Guidance. The team determined that the although a reasonable effort was made to select equipment in different locations throughout the plant, the following concerns were noted and need to be addressed:

- The MNGP SWEL lists locations for equipment, but does not make any effort to describe the environmental conditions at these locations. This could create challenges for personnel not familiar with MNGP layout when reviewing the SWEL. It is recommended

Peer Review Checklist for SWEL #1

that the SWEL Team develop some environmental descriptions for the areas listed. (Example Warm/Dry, Cool/Dry, Warm/Damp, Cool/Damp, etc.)

- There is only one item on the list in the Drywell and no items in the Steam Chase. These would be the most realistic "Harsh" environments for equipment at MNGP.
- Item #73 on the MNGP SWEL lists its location as "ALL."

e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program? Y☒ N☐

The Peer Review Team noted that five items on the MNGP SWEL were classified as equipment enhanced as a result of the IPEEE program. This meets the requirement from the EPRI guidance to select "some" equipment from this program.

f. Were risk insights considered in the development of SWEL 1? Y☒ N☐

The Peer Review Team reviewed the list of the top 20 risk significant equipment items from the MNGP PRA Engineer. 20 of the 98 equipment items listed on the MNGP SWEL, have ties to the top 20 risk significant systems for PRA. The team felt this was a strong sample and was well documented.

3. For SWEL 2: **SWEL 2 REVIEW NOT DOCUMENTED ON THIS CHECKLIST**

a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? Y☐ N☐

b. Was an appropriate justification documented for spent fuel pool related items not included in SWEL 2? Y☐ N☐

Peer Review Checklist for SWEL #1

4. Provide any other comments related to the peer review of the SWELs.

   None

5. Have all peer review comments been adequately addressed in the final SWEL? Y☒ N☐

Peer Reviewer #1: _____ Date: 7-24-12

Peer Reviewer #2: _____ Date: 7-24-2012

F

Disposition of Seismic Walkdown Observations

This appendix includes a discussion of how observations noted in the Seismic Walkdown Checklists (SWC) and Area Walk-By Checklists (AWC) were dispositioned. All observations noted in the SWCs or AWCs were reviewed by site engineering to determine whether or not the issues could be readily shown to meet the seismic licensing basis. If it was clear that the observations noted by the SWEs were not seismic concerns, then the observation was dispositioned as needing no further actions. However, if site engineering could not readily determine if the condition met the seismic licensing basis, then the observations were entered into the CAP. Table F-1 and Table F-2, below, lists the observations identified in the SWCs and AWCs, and how each observation was dispositioned. Only those observations which required additional review by site engineering are included in these tables. Comments or recommended enhancements are not included. If an observation was entered into the CAP, or into the work management system, then a status of the action requested is provided.

The AWCs in this appendix include information on the location of SWEL components, which is considered SUNSI, of which the loss, issue, modification, or unauthorized access can reasonably be foreseen to harm the safe operation of the nuclear plant. Pages which contain proprietary information have been marked, and the sensitive information has been redacted.

Table F-1: Disposition of SWC Observations

Walkdown Checklist	Question No.	Observation	Disposition
AO-4539	11	SWEs noted 2G4007 conduit is used as anchor point to tie together other power cables using tie wraps. Also noted electrical tape used to hold up power cables at connection point on valve.	CAP 1346939 was initiated to evaluate this observation. This condition was determined not to be an adverse condition, however, WR 83827 was written to re-support the cable for AO-4539.
C-03	11	Door connecting front and back panels is free to swing. Door could impact C-03 in seismic event and is a seismic interaction issue.	Due to the large differences in stiffness and mass between the panels and door there will be very little vibration to any relays so there will not be a concern with relay chatter. Therefore, it is not a seismic concern.

Table F-1: Disposition of SWC Observations

Walkdown Checklist	Question No.	Observation	Disposition
C-122	5	Pictures were taken of each leg starting with the south end. Floor bolts are combination of 3/8" and 1/2" bolts. Anchorage does not match calculation. Also one bolt appears not fully threaded.	MNGP calculations validated the 3/8" bolt currently installed rack configuration meets design load criteria. Computations used pinned bases for the rack, therefore no tension is expected on the anchors, only shear load. Shear load is resisted by bearing of the anchor rods on the concrete floor, therefore 3/4 thread engagement does not affect anchorage shear capacity. Therefore, it is not a seismic concern.
CRD HCU W	8	CST line is in contact w/ CRD structural column. WO 62289 was initiated as part of CAP 1259196 to address rubbing.	This condition was identified in CAP 1259196. This is being addressed in the work order process under WR 62289 and WO 417791. It is not an adverse seismic concern.
CRD HCU W	Comments	Tie-Wrap around anchors for CRD 38-35 and CRD 50-31 should be removed.	Tie-wrap was removed. There is no seismic concern.
D3A	2	Center stanchion of west (wall) rack has excessive projection and 2nd stanchion from north has excessive projection.	Anchorage was judged adequate by SEWs. There is no seismic concern.
D31	5	Plant drawing inaccurate with installation of anchors. SEWS evaluation on anchors uses correct "as found" configuration.	CAP 1350165 and CAP 1346890 were initiated to document this observation. The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
D70	11	This is a potential for seismically induced spray due to 3/4" copper water line noted in area walkby checklist EFT932.	The equipment in the room is for the Division II 250VDC batteries. This equipment is not relied on for an internal flood event, therefore a break of the 3/4" line will not prevent a safe shut down of the plant. It is not a seismic concern.
MCC-134	7	3" diameter line entering room from south wall has just a dead weight support near south wall and then runs horizontally over to MCC. This line appears to contain cast iron threaded fittings. Concern is if this small line structurally fails in seismic event, it could impact MCC.	The piping is seismically supported by rigid seismic supports. The threaded connections will not fail. It is not a seismic concern.

Table F-1: Disposition of SWC Observations			
Walkdown Checklist	**Question No.**	**Observation**	**Disposition**
MCC-134	7	4" diameter line from south wall is connected at wall with structural steel anchored to CIP concrete. It has victaulic coupling midspan and is anchored above MCC with U-bolt/I-beam support. Concern is differential displacement of south steel beam versus north CIP wall.	The displacement of the Victaulic coupling will be dominated by the displacement of the pipe. The support differential displacement will contribute an insignificant amount. Therefore, the pipe supports on the concrete wall and the other supports on the building steel will have an insignificant effect on the pipe and the Victaulic coupling in the pipe. It is not a seismic concern.
P-203A	7	Tall scaffold is constructed above the pump. Verify the seismic assessment of this scaffold.	CAP 1347002 was initiated to evaluate this observation. The engineer responsible for scaffolding evaluations reviewed the scaffold and determined it was adequately braced to prevent sliding and overturning during a seismic event.
P-209	5	There are eight 1" CIP anchor bolts per NX-8292-43 while the walkdown only found six 1" CIP anchor bolts.	CAP 1346272 was initiated to evaluate this observation. The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
P-88A	3	The anchor bolts are heavily corroded.	Per plant documentation, the anchors have adequate margin in that the amount of corrosion on the anchor bolts will not affect the seismic qualification of the pump. It is not a seismic concern.
T-200	5	There is a discrepancy between Drawing NX7879-8-1 and what is installed in the plant.	CAP 1347243 was initiated to evaluate this observation. The anchorage configuration was determined to be acceptable as found. The plant drawings are being revised to match the anchorage configuration.
T-200	10	Verify the seismic assessment for the scaffold near tank.	CAP 1347002 was initiated to evaluate this observation. The engineer responsible for scaffolding evaluations reviewed the scaffold and determined it was adequately braced to prevent sliding and overturning during a seismic event.
V-SF-9	5	Drawing NX-9290-3 anchor bolt configuration does not match field. Bolt pattern does match 1995 SEWS.	CAP 1345975 was initiated to evaluate this observation. As documented in the SEWS, there is no seismic concern, however, the drawing will be updated to reflect field conditions.

Table F-1: Disposition of SWC Observations			
Walkdown Checklist	**Question No.**	**Observation**	**Disposition**
Y71	8	3" or 4" diameter line has victaulic couplings. It is connected to north wall using structural steel and is connected to south wall with a steel beam. Concern is differential displacement under seismic loading could pull couplings apart.	The displacement of the Victaulic coupling will be dominated by the displacement of the pipe. The support differential displacement will contribute an insignificant amount. Therefore, the pipe supports on the concrete wall and the other supports on the building steel will have an insignificant effect on the pipe and the Victaulic coupling in the pipe. It is not a seismic concern.

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Table F-2: Disposition of AWC Observations

Area Walkby Checklist	Question No.	Observation	Disposition
EFT	3	HVAC duct protrudes in front of MCC-144. Unistrut supporting the duct is within 3/8" from front of MCC.	Both MCC-144 and the duct are rigidly supported. At maximum SSE, there will be minimal displacement of the duct and MCC-144. Therefore, it is not a seismic concern.
EFT	4	Drywall in corner - does it meet seismic II/I criteria? This is next to the D70 battery charger.	The drywall construction was shown in plant documentation to be able to withstand a seismic event and not affect any class I equipment. Therefore, it is not a seismic concern.
EFT	11	3/4" copper line identified with a two support rod support about 8' apart. Soldered union 3' from one support. Is this line designed for seismic category II/I, and if not, does this line present a spray problem on class I equipment if it ruptures?	The equipment in the room is for the Division II 250VDC batteries. This equipment is not relied on for an internal flood event, therefore a break of the 3/4" line will not prevent a safe shut down of the plant. It is not a seismic concern.
EFT - Division 1	5	3/4" diameter copper line with soldered connection. Line appears supported in horizontal direction but not vertically. Hand valve WDW 60 one elbow within 1/16" of conduit. This elbow might contact the conduit during a seismic event, breaking a solder joint and causing spray of safety-related equipment.	Failure of the copper line may cause spray onto V-ERF-14A. However, V-ERF-14A is not required for safe shutdown of the plant and is not required to be operable for an internal flooding event. It is not a seismic concern.
EFT - Div 1	5	Fire station contains victaulic couplings. Station is bolted to wall. FP line runs up to roof of this floor and into the floor. No sign of lateral bracing. Three victaulic couplings are spaced closely together. Is this line adequate for seismic loads? Line is charged with water. Line is also in contact with conduit N43158 and in contact with HVAC duct support. (SWEs could not see lateral support above for FP line).	This line was determined to be adequately supported as part of CAP 1346922. There is no seismic concern.
EFT - Div 1	5	3" vertical pipe or conduit of unknown material has a two-bolt pipe coupling, runs floor to ceiling. It has two wall supports. The line cuts 1" into insulation on ESW line. Is this line adequate for seismic II/I? See penetration F2-3915.	The purpose/function of the stand pipe is a vent line from the battery room (1st floor) to the roof. Failure of the pipe is not a concern because the pipe is adequately supported between the floor and the ceiling. It is not a seismic concern.

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Table F-2: Disposition of AWC Observations			
Area Walkby Checklist	**Question No.**	**Observation**	**Disposition**
EFT-N-Div 1	5	4" diameter line from south wall is connected at wall with structural steel anchored to CIP concrete. It has victaulic coupling midspan and is anchored above MCC with U-bolt/I-beam support. Concern is differential displacement of south steel beam versus north CIP wall.	The displacement of the Victaulic coupling will be dominated by the displacement of the pipe. The support differential displacement will contribute an insignificant amount. Therefore, the pipe supports on the concrete wall and the other supports on the building steel will have an insignificant effect on the pipe and the Victaulic coupling in the pipe. It is not a seismic concern.
EFT	4	C-303B & C-304C are within 3/4" at top. Is this acceptable?	These panels were reviewed as part of the SQUG program. Based on the SQUG analysis, the gap of 3/4" would be sufficient to prevent seismic interaction, and the cabinets would not impact each other. It is not a seismic concern.
EFT	8	Floor to ceiling 6" roof drain has victaulic coupling 4' from top and has no bracing. Is this seismically acceptable?	This line was determined to be adequately supported as part of CAP 1346922, so there is no seismic concern.
Intake	3	In the Intake Structure, Sodium Hypochlorite residue was found on valve SHC-28 as well as from the ceiling, indicating a leak.	This issue is being addressed by the work order process. It is not a seismic concern.
PAB - 13 Battery	1	Check drawing details documentation for anchorage of base plate between D40 & D54.	Panel D31 was qualified as part of the SQUG program and determined to be seismically adequate in the existing configuration. The anchorage for the mounting plate for panels D31, D52, D53 and D54 was verified against plant drawings and it was found that the anchorage for these panels is in accordance with plant drawings. No further action is required.
PAB - 13 Battery	3	One loose nut for duct strap anchor above Door 109 needs to be tightened.	The nut on the anchor bolt has full engagement but is loose and should be tightened. The duct support remains adequate in its current configuration. WR 83099 was initiated to address this condition.
PAB - 13 Battery	Comments	"Reset" label for D102 was found on the floor and was placed on top of D102.	Label was remounted by plant Operations.
PAB-CSR	3	Cable tray MP404 & MP403 appears to be in contact with C-27.	CAP 1345963 concluded that this issue had been previously analyzed and was determined not to be a seismic issue.

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Table F-2: Disposition of AWC Observations			
Area Walkby Checklist	**Question No.**	**Observation**	**Disposition**
PAB-CSR	3	Cable tray GR405, GR404, and GR403 is in contact with HVAC duct registers in 4 of 5 cases.	The connection of the vent to the main duct is s clinch lock type connection which has minimal rotational resistance. Any interaction between the cable tray and the vent would move the vent without imparting any significant load to the tray. Therefore, it is not a seismic concern.
PAB-CSR	Comments	Verify coupling material on drain line and that allowable stress is not exceeded.	The line is a 4" drain line from the toilet located on the control room. The line is not pressurized or full of fluid and is not a flooding concern. A break of the line at the union would possibly result in the union falling but it is not over any safety related equipment. The remainder of the line is supported and would not fall and impact any equipment. It is not a seismic concern.
PAB-CSR	3	Some unistrut nuts are not fully engaged to support overhead lighting.	If the light was to fall, and a circuit trip would occur, there would be minimal impact. It is not a seismic concern.
PAB - Control Room	7	Emergency Equipment cabinet across the aisle in corner from C-13 and C-37, and in the corner, is potentially unanchored. If unanchored, then may have potential adverse seismic spatial interaction concern since it could tip over and impact C-13, which may adversely affect C-37 also.	The cabinet is anchored to the adjacent work platform to prevent the cabinet from tipping. It is not a seismic concern.
PAB - Control Room	7	Plant status board is anchored to wall with two screws. If board anchorage were to fail under seismic event, it may impact C-03. Is this board adequately restrained for seismic load?	The status board is anchored to the contact wall with two anchors. The anchors are adequate for the calculated seismic loads. It is not a seismic concern.
PAB - Control Room	8	Doors between front and back control room panels are not restrained. Doors are free to swing in seismic event and could impact side of C-02 or C-13. This is a potential seismic interaction issue.	The doors are free to pivot about their hinges and could impact the panels. The doors would impact the panel structure but would not impact any components inside the panels. Due to the large differences in stiffness and mass between the panels and the hollow metal door, there will be minimal vibration to any relays and no concerns with relay chatter. The door is not a seismic concern.
RX - A RHR	8	Vertical tube support (3") has two anchor bolts into the floor. Nuts are not tight to the base plates. Located next to RHR-18-1 handwheel.	This condition is being addressed in the work management process, under WR 82181 and WO 464604. CAP 1346643 documents the observation. It is not an adverse seismic concern.

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Table F-2: Disposition of AWC Observations			
Area Walkby Checklist	**Question No.**	**Observation**	**Disposition**
RX - A RHR	8	In the "A" RHR room, South wall, No. 11 RHR pump seal cooling water supply (RBCCW), line support, there is a U-bolt that is missing a nut and the other nut is not fully engaged. On a second support, one nut is not fully engaged and the other nut is partially missing.	This condition is being addressed by the work management process, under WR 82180 and WO 463560. CAP 1346654 documents the observation. It is not an adverse seismic concern.
RX - HPCI	4	HVAC support on south end cuts into pipe insulation on line SC 16-8-ED approximately 1-3/8" and insulation appears to be 1-1/2" thick. Is this a seismic spatial interaction issue?	A 1/8" gap is estimated to exist between pipe and brace. The 8" pipe is rigidly supported (seismic support) 5' from the brace location. Pipe movement at the brace location is minimal (<1/8"). Therefore the pipe will not interact with the brace during a seismic event or thermal expansion of pipe. It is not a seismic concern.
RX - HPCI	4	Manual 1" Valve (PS-23-106) hand wheel in contact with ventilation duct. Will the interaction between the two cause a leakage from the valve?	Both valve piping and duct are rigidly supported near the interaction location. Due to low SSE accelerations at the level of HPCI room (<0.02g) movement of pipe/valve and duct is minimal such that no damage to valve or duct is expected. Operation of the valve or valve position will not be affected. It is not a seismic concern.
RX - HPCI	7	MCC-312 is within zone of influence of R-8 cabinet for chemical control storage. SWEs cannot determine if R-8 is anchored to wall from inside. Cabinet is locked. Cabinet could tip over, impacting MCC-312 if not anchored.	Based on size of the cabinet and low SSE acceleration at the HPCI room floor, the cabinet will not tip over. If the cabinet tip over (i.e., in the short direction) it will not impact any safety related equipment. It is not a seismic concern.
RX - HPCI	7	Also compressed bottle on cart is within a few inches of MCC-312. Wheels are locked. Does this meet station house keeping procedure?	Plant operations moved the cart to comply with housekeeping procedures. It is not a seismic concern. CAP 1346030 documents the condition identified.
RX - RCIC	2	Reddish deposit noted on one of two anchor bolts on vertical support of structural angle supporting two pipelines. The lines are 1" diameter connecting SV-2849 to contaminated drain line and RCIC - (14) (2" diameter line) - "To RCIC pump suction". SWE's cannot judge condition of one anchor bolt that is covered over with corrosion deposits. Other anchor bolt is not corroded.	The bolts were cleaned under WR 82134 and found to be in good condition. It is not a seismic concern. CAP 1346642 documents this observation.

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Table F-2: Disposition of AWC Observations

Area Walkby Checklist	Question No.	Observation	Disposition
RX- RCIC	5 and 7	In the RCIC room, there is a chain used to secure H-113 (gib crane) that does not restrain it from impacting the rod hanger supporting the pipe below. Is this configuration acceptable as-is or do we need to secure H-113 in a different way to prevent a seismic interaction issue? H-113 is within ~2" of the rod hanger.	H.113 has stops to prevent swinging toward rod hanger. The chain prevents it moving away from the wall. It is not a seismic concern.
RX - RCIC	5	In the RCIC room, there is a rod hanger for the RCIC steam supply line that is in contact with a pipe. Is this acceptable?	The support is PSH-108. This condition is addressed in a MNGP calculation and is not a seismic concern.
RX - RCIC	5	In the RCIC room, there is a rod hanger on the RCIC pump discharge that appears to be in contact with the RCIC steam supply line. Is this acceptable?	A calculation evaluated a similar condition with hanger PSH-108, which is in contact with a floor drain line. The evaluation concluded that assuming a 3" total movement of both lines, the impact on the rod hanger is negligible with respect to the additional loading on the rod hanger. This condition is bounded by this calculation. Therefore, there is no seismic concern.
RX - Torus Catwalk - Northwest	2	Tie wrap used to anchor electrical cable to conduit 2G4010.	This condition was determined in CAP 1346939 not to be a condition adverse to quality and it is not a seismic concern. WR 83827 was initiated to re-support the extra cable length for AO-4539.
RX - Torus Catwalk - Northwest	2	Two boxes on ceiling appear to be unanchored and supported by nearby unistrut. Rigid conduit from boxes to unistrut are 2G4013 and 2G4014.	Both conduits are anchored close to the junction boxes. Based on small weight of the boxes and low seismic SSE accelerations, the conduits are capable of supporting the junction boxes, even if the boxes are not anchored to ceiling. It is not a seismic concern.
RX - Torus Catwalk - Northwest	2	Drain line (1 of 2 mentioned above) is in contact with tube tray. Is this acceptable?	Both drain lines are supported near the tube tray. The lines will not move vertically. Therefore, no force from the piping is imposed on the tube tray. Lateral movement of piping also has no significant impact on tube tray. There is no seismic concern.
RX - Torus Catwalk - Northwest	2	Crack in path of anchor for ceiling support on solenoid valve SV-4541 and SV-4592.	The observed condition is not a crack. The gap between the ceiling T-beams (9" wide) was filled with concrete after the T-beams were installed. The lines along the gap appear to be cracks; however, the lines are the boundary between poured concrete and pre-fabricated T-beams. There is no seismic concern.

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Table F-2: Disposition of AWC Observations

Area Walkby Checklist	Question No.	Observation	Disposition
RX - Torus Catwalk - Northwest	5	Floor drains in contact with each other could be potential flooding issue. It is located between Bay 6 & Bay 7 (Penetration RB609 & RB603). It is a welded pipe and rod hung.	Both drain lines are supported near the tube tray. The lines will not move vertically. Therefore, no force from the piping is imposed on the tube tray. Lateral movement of piping also has no significant impact on tube tray. There is no seismic concern.
RX - East	3	Cable ties are fastening a flexible conduit to a cable tray support.	This condition was determined in CAP 1346170 not to be a condition adverse to quality and is not a seismic concern.
RX - East	8	In the Rx Bldg, above HCUs, there are two rod hangers that are bent around conduit: One that supports an abandoned pipe, the other supports a heating steam line. Is this configuration adversely affecting the conduit?	The conduit was identified as H158. Electrical engineering determined there are no identified cables in the conduit. Thus any local damage to the conduit will not affect any plant equipment. There is no seismic concern.
RX - MG Set	5	FP line 3" - 4" diameter with victaulic couplings near F-20355 and F-20360. FP line has threaded couplings that might be cast iron. Some couplings are midspan.	The line is not seismic and breaks are postulated in this line for internal flooding events. The sprinkler piping is only filled with water during a fire event, so it is not a seismic concern.
RX - MG Set	5	The line to a heat-activated-device (HAD) for FP system is in contact with Service Air Line.	The fire protection system air line is not Class 1; therefore seismic interaction is not a concern.
RX - MG Set	5	Smaller cast iron FP line has same threaded couplings as 3" - 4" FP line by 12 MG Set.	The fire protection system air line is not Class 1; therefore seismic interaction is not a concern.
RX- MG Set	8	Block wall noted around Door-73 is seismic category 1 per drawing NF-36300-1-2 (South wall).	The pull box is not required to be supported, per plant specifications. Pull boxes that are on walls have an electrical fitting that goes through the wall. It is also grouted in the wall, which also provides support for the box. Based on this the pull box is adequately supported, and is not a seismic concern.
RX - MG Set	8	Electrical box for penetration F2-0350 does not have anchorage in block wall. Box is connected to conduit 1K3100. Block wall is seismic category 1 per drawing NF-36300-1-2.	The pull box is not required to be supported, per plant specifications. Pull boxes that are on walls have an electrical fitting that goes through the wall. It is also grouted in the wall, which also provides support for the box. Based on this the pull box is adequately supported, and is not a seismic concern.
RX - MG Set	Comments	FME (rags or paper) was identified behind C283A.	WR 83036 removed the loose material. It is not a seismic concern.

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Table F-2: Disposition of AWC Observations

Area Walkby Checklist	Question No.	Observation	Disposition
RX - SBLC	4	See scaffold discussion for SBLC tank T-200 and pump P-203A. (At the SBLC pump and tank area, there is a large amount of scaffolding, some of which is one level (~7' high), some of which has two levels (~14' high). Are the lateral attachments and overturning restraints adequate to achieve 2 over 1?)	CAP 1347002 was initiated to evaluate this observation. The engineer responsible for scaffolding evaluations reviewed the scaffold and determined it was adequately braced to prevent sliding and overturning during a seismic event.
TB - Lower 4KV	4	Hoist is resting on LC-101 480V Load Center. It also poses an impact hazard, and has open s-hooks.	This condition was determined not to be a seismic concern (CAP 1349068).
TB - Lower 4KV	4	Fire extinguisher near non safety 4.16kV 4kVB-06 cubicle is an interaction hazard as it can fall off hook.	This condition was determined not to be a seismic concern (CAP 1349068).
TB - Lower 4KV	4	Hoist restraint on non-essential LC-109 should be replaced with a restraint more appropriate than wire.	This condition was determined not to be a seismic concern (CAP 1349068).
TB - Lower 4KV	7	Non-essential XFMR X-90 has missing bolts. There is an existing W.O. 00359194 noting this condition.	This condition was determined not to be a seismic concern. It is being addressed in the Work Order process under WO 359194.
TB - South	3	Lighting is pendant-hung and can swing into MCC-133B. Cable trays are supported by strut systems which are adequate.	This condition was determined not to be a seismic concern (CAP 1349068).
TB - South	4	Pendant light is an interaction hazard to conduit connected to MCC-133A.	This condition was determined not to be a seismic concern (CAP 1349068).
TB - 12 DG Day Tank	8	FP line is in contact with DO fuel line.	This condition was evaluated under CAP 1345971 and was found to be acceptable as any potential failures would not have any negative impact on the ability of the plant to safely shutdown.
TB - 12 DG Room	1	Main FP station has two dead weight supports with no anchorage to floor. Additional support nearby is bolted to floor and captures FP station using 1/2" plate to capture pipe. Is this configuration acceptable considering seismic anchorage?	The vertical support is modeled as a one way support, per calculation. The support is as designed, and it should not be bolted to the floor but allowed horizontal movement. There is no seismic concern.

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Table F-2: Disposition of AWC Observations

Area Walkby Checklist	Question No.	Observation	Disposition
TB - South	3	HVAC has 5' free end cantilever from last support and entire HVAC run is supported from cable tray KA432. Is this configuration required to meet seismic 2/1 criteria?	This type of support was evaluated as part of the resolution of SQUG. Based on this evaluation, the tray support is adequate to support the HVAC ducting. It is not a seismic concern.
TB - Upper 4KV	3	Rod for conduit support for conduits B933A and 2 other conduits is in contact with HVAC duct. Duct is moving just due to air flow and causes rod to be moved with it. Rod appears to be bent, possibly because anchor point for rod is inside footprint of HVAC duct.	Any impact during a seismic event between the duct and the rods could locally deform the HVAC duct but it would not cause structural failure. There is no seismic concern.
TB - Upper 4KV	4	Lighting is hung on a rod on the rear side of Bus 16. It is laterally supported to prevent sway by one wire tied of grating. SWEs are concerned that there are not enough lateral supports. Light is 21' long.	The lighting is supported by rod hangers and runs the length of the upper 4kV room from west to east and passes through the security barrier wall. The lighting support does not need to be restrained laterally as the rod hangers will support the lighting without lateral support. There is no seismic concern.
TB - Upper 4KV	8	12 DG Potential Transformer (G-3B/Pot) is above 4kV cubicle 152-602. Is this accounted for in anchorage calc? PT appears to be bolted to top of cubicle with angles.	The 12 Diesel Generator Pot Transformer was evaluated in a calculation. The calculation added additional support to prevent overturning and impacting equipment in the area. A plant drawing shows the additional anchorage for the potential transformer, so there is no seismic concern.