

Prairie Island Nuclear Generating Plant 1717 Wakonade Drive East Welch, MN 55089-9642

NOV 2 6 2012

L-PI-12-108 10 CFR 50.54(f)

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

Prairie Island Nuclear Generating Plant Docket No. 50-282 Renewed Facility Operating License No. DPR-42

<u>PINGP Unit 1 - Final Response to NRC Request for Information Pursuant to 10 CFR</u> 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:

- 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.
  - NSPM Letter to NRC, "Prairie Island 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, ADAMS Accession No. ML12192A207.

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

ADDIER

Responses associated with NTTF Recommendation 2.3, Seismic. This letter provides the required final 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, for Prairie Island Nuclear Generating Plant (PINGP), Unit 1.

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 PINGP. These walkdowns were performed 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 PINGP Unit 1. This 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). A redacted version of the information enclosed in this letter will be provided in a separate letter 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) 1R30
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 1R30

Document Control Desk Page 3

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

.

Executed on NOV 2 6 2012

r c

James É. Lynch Site Vice President, Prairie Island Nuclear Generating Plant Northern States Power Company - Minnesota

Enclosure

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

# **PRAIRIE ISLAND NUCLEAR GENERATING PLANT -- UNIT 1**

# **NTTF RECOMMENDATION 2.3 -**

# **REDACTED SEISMIC WALKDOWN REPORT**

(362 Pages Follow)

ч.

# **Table of Contents**

List o	f Tabl	es iii
Exec	utive S	Summaryiv
1	Intro	duction1-1
	1.1	Background1-1
	1.2	Plant Overview1-1
	1.3	Approach1-2
2	Seisi	mic Licensing Basis2-1
	2.1	Overview2-1
	2.2	Design Basis Earthquake (DBE)2-1
	2.3	Design of Seismic Category I SSCs2-1
		2.3.1 Summary of Seismic Design2-2
		2.3.2 Methods for Qualifying Electrical and Mechanical Equipment and Instrumentation
		2.3.3 Summary of Codes and Standards2-3
3	Pers	onnel Qualifications3-1
	3.1	Overview
	3.1 3.2	Overview
	3.1 3.2 3.3	Overview
4	3.1 3.2 3.3 <i>Sele</i>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1
4	3.1 3.2 3.3 <i>Sele</i> 4.1	Overview         3-1           Walkdown Personnel         3-1           Personnel Qualifications         3-2           ction of SSCs         4-1           Overview         4-1
4	3.1 3.2 3.3 <b>Sele</b> 4.1 4.2	Overview         3-1           Walkdown Personnel         3-1           Personnel Qualifications         3-2           ction of SSCs         4-1           Overview         4-1           SWEL Development         4-1
4	3.1 3.2 3.3 <b>Sele</b> 4.1 4.2	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1
4	3.1 3.2 3.3 <b>Sele</b> 4.1 4.2	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4
4	3.1 3.2 3.3 <b>Sele</b> 4.1 4.2	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6
4	<ul> <li>3.1</li> <li>3.2</li> <li>3.3</li> <li>Selection</li> <li>4.1</li> <li>4.2</li> <li>Seisti</li> </ul>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6         mic Walkdowns and Area Walk-Bys       5-1
4	<ul> <li>3.1</li> <li>3.2</li> <li>3.3</li> <li>Selection</li> <li>4.1</li> <li>4.2</li> <li>Seistion</li> <li>5.1</li> </ul>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6         mic Walkdowns and Area Walk-Bys       5-1         Overview       5-1
4	<ul> <li>3.1</li> <li>3.2</li> <li>3.3</li> <li><i>Sele</i></li> <li>4.1</li> <li>4.2</li> <li><i>Seis</i></li> <li>5.1</li> <li>5.2</li> </ul>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6         mic Walkdowns and Area Walk-Bys       5-1         Overview       5-1
4	<ul> <li>3.1</li> <li>3.2</li> <li>3.3</li> <li><i>Sele</i></li> <li>4.1</li> <li>4.2</li> <li><i>Seis</i></li> <li>5.1</li> <li>5.2</li> </ul>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6         mic Walkdowns and Area Walk-Bys       5-1         Overview       5-1         Seismic Walkdowns       5-1         5.2.1 Adverse Anchorage Conditions       5-2
4	<ul> <li>3.1</li> <li>3.2</li> <li>3.3</li> <li><i>Sele</i></li> <li>4.1</li> <li>4.2</li> <li><i>Seis</i></li> <li>5.1</li> <li>5.2</li> </ul>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ction of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6         mic Walkdowns and Area Walk-Bys       5-1         Overview       5-1         Seismic Walkdowns       5-1         5.2.1 Adverse Anchorage Conditions       5-2         5.2.2 Configuration Verification       5-3
4	<ul> <li>3.1</li> <li>3.2</li> <li>3.3</li> <li><i>Sele</i></li> <li>4.1</li> <li>4.2</li> <li><i>Seis</i></li> <li>5.1</li> <li>5.2</li> </ul>	Overview       3-1         Walkdown Personnel       3-1         Personnel Qualifications       3-2         ection of SSCs       4-1         Overview       4-1         SWEL Development       4-1         4.2.1 SWEL 1 – Sample of Required Items for the Five Safety Functions       4-1         4.2.2 SWEL 2 – Spent Fuel Pool Related Items       4-4         4.2.3 SWEL 2 Development Conclusion       4-6         mic Walkdowns and Area Walk-Bys       5-1         Overview       5-1         Seismic Walkdowns       5-1         5.2.1 Adverse Anchorage Conditions       5-2         5.2.2 Configuration Verification       5-3         5.2.3 Adverse Seismic Spatial Interactions       5-3

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

		5.2.4 Other Adverse Seismic Conditions	5-4
		5.2.5 Issues Identified during Seismic Walkdowns	5-5
	5.3	Area Walk-Bys	5-5
		5.3.1 Seismically-Induced Flooding/Spray Interactions	5-6
		5.3.2 Seismically-Induced Fire Interactions	5-6
		5.3.3 Issues Identified during Area Walk-bys	5-7
6	Lice	ensing Basis Evaluations	6-1
7	IPE	EE Vulnerabilities Resolution Report	7-1
8	Pee	r Review	8-1
9	Ref	erences	9-1

# Appendices

A	Equipment Lists	A-1
В	Seismic Walkdown Checklists (SWCs)	B-1
С	Area Walk-By Checklists (AWCs)	C-1
D	Plan for Future Seismic Walkdown of Inaccessible Equipment	D-1
E	Peer Review Report	E-1
F	Disposition of Seismic Walkdown Observations	F-1

# List of Tables

Table 2-1: List of Codes, Standards, and Specifications	2-4
Table 3-1: Personnel Roles	3-1
Table 5-1: Anchorage Configuration Confirmation	5-3
Table 5-2: Prairie Island Unit 1 SWC CAP Status	.5-8
Table 5-3: Prairie Island Unit 1 Area Walk-by CAP Status	5-10
Table 7-1: Prairie Island IPEEE Seismic Vulnerabilities	7-2
Table A-1: Prairie Island Unit 1 - Base List 1       A	4-2
Table A-2: Prairie Island - Base List 2	A-17
Table A-3: Prairie Island Unit 1 - SWEL 1	A-18
Table A-4: Prairie Island - SWEL 2	. <b>A-</b> 27
Table B-1: Prairie Island Unit 1 Completed SWCs	B-1
Table C-1: Prairie Island Unit 1 Completed AWCs	C-1
Table D-1: Summary of Inaccessible Equipment         Image: Comparison of Comparis	D-1
Table E-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1	E-7
Table F-1: Disposition of Seismic Walkdown Observations	.F-2
Table F-2: Disposition of Area Walk-by Observations	F-8

.

# **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 (Agency-wide 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 as well as to verify the current plant configuration with the current seismic licensing basis. This report documents the seismic walkdowns performed at the Prairie Island Nuclear Generating Plant (PINGP) 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 PINGP in a letter dated July 9, 2012 (Reference 10).

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
- 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 PINGP. No adverse seismic conditions were identified at PINGP. Corrective Action Program Action Requests (CAPs) were entered into the site's 10 CFR 50 Appendix B qualified corrective action program. The disposition of all potentially adverse observations noted during the seismic walkdowns is documented in Appendix F of this report.

The Seismic Walkdowns identified several minor issues predominantly pertaining to seismic housekeeping and potential seismic interactions associated with overhead lighting fixtures. The Seismic Walkdowns identified no degraded, nonconforming, or unanalyzed conditions that required either immediate or follow-on action(s). No planned or newly identified protection or mitigation features have resulted from the efforts to address the NRC 10 CFR 50.54(f) letter.

Follow-on activities required to complete the efforts to address Enclosure 3 of the NRC 10 CFR 50.54(f) letter include inspection of 29 items deferred due to inaccessibility or internal cabinet inspections. Area Walk-Bys will be completed, as required, during these follow-on activities.

# 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), 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 8). NSPM confirmed that the EPRI seismic walkdown guidance would be used as the basis for conducting the seismic walkdowns and gathering the requested information at PINGP in a letter dated July 9, 2012 (Reference 10).

# **1.2 PLANT OVERVIEW**

PINGP, Units 1 and 2, are both 2-loop pressurized water reactors owned by NSPM. Westinghouse Electric Corporation designed and supplied the nuclear steam supply systems, initial reactor fuel, and the turbine-generator units. Pioneer Service and Engineering Company (PS&E) was the plant's architect-engineer. Northern States Power was the constructor.

The containment for each unit was designed by PS&E and consists of two systems:

- A primary containment consisting of a free-standing low-leakage steel vessel, including its penetrations, isolation systems and heat removal systems.
- A secondary medium leakage concrete shield building surrounding the primary containment, including special ventilation systems for its annulus and adjacent auxiliary building.

# **1.3 APPROACH**

The EPRI Seismic Walkdown Guidance (Reference 1) is used for PINGP Unit 1 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 PINGP Unit 1 and Unit 2. 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 (SSCs) 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 DESIGN BASIS EARTHQUAKE (DBE)

The design basis earthquake (DBE) is based upon a maximum horizontal ground acceleration of 0.12g and the associated response spectra are given in Plate 4.6, Appendix E of Reference 2. The DBE is synonymous with the Safe Shutdown Earthquake (SSE) (Reference 2, Section 12.2.1.3.5).

# 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 PINGP Updated Safety Analysis Report (USAR) (Reference 2) sections:

- USAR Section 12.2.1.1, Classification of Structures and Components
- USAR Section 12.2.1.3.5, Seismic Loads
- USAR Section 12.2.1.4, General Design Criteria for Structures
- USAR Section 12.2.1.4.3, Structural Design Basis
- USAR Section 12.2.1.5, *Seismic Analysis of Mechanical and Electrical Equipment*

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

#### 2.3.1 Summary of Seismic Design

The site Operating Basis Earthquake (OBE) and DBE ground response spectra are shown in Plates 4.5 and 4.6, respectively, in Appendix E of the PINGP USAR (Reference 2). The equivalent multi-mass mathematical model was constructed to approximate the structural system. The effect of the foundation soils is included in the model by means of equivalent springs. The spectral method was used to determine the maximum response of each mass point for each mode, using the OBE (Reference 2, Plate 4.5 in Appendix E) and damping values given in USAR Table 12.2-8 of Reference 2 as input. The total response for each point was determined by the root-mean-square (RMS) method. From this, a set of curves were developed showing the maximum translational accelerations, displacements, shears, and moments as varying with height.

The maximum horizontal and vertical ground accelerations at the ground level are 0.12g for the DBE (SSE) and 0.06g for OBE (Plates 4.5 & 4.6, Appendix E – Reference 2). These OBE and DBE ground response spectra were plotted at 0.5%, 2% and 5% damping (Reference 2, Plates 4.5 and 4.6 of Appendix E). The vertical ground acceleration is equal to two-thirds of the horizontal ground acceleration (Reference 2, Section 12.2.1.4.3.1.1).

#### 2.3.2 Methods for Qualifying Electrical and Mechanical Equipment and Instrumentation

Equipment and instrumentation are qualified using one or more of the following methods:

- 1. Qualification by analysis,
- 2. Qualification by test, or
- 3. Qualification by combination of analysis and test.

Equipment is qualified by analysis if the equipment is not too complex and can be represented in a mathematical model for performing static analysis and/or dynamic analysis.

#### 1. Qualification by Analysis

#### Static Analysis

Static analysis is performed for an equipment item determined to be rigid. The seismic forces on each component of the equipment are obtained by concentrating the total mass at the equipment's center of gravity and multiplying the values of the mass and the appropriate floor acceleration from the seismic response spectra. The resulting forces are converted to stresses and are added to the other equipment stresses, as per the design criteria, to determine if the equipment is adequate to withstand the required load.

#### **Dynamic Analysis**

Dynamic analysis is performed for flexible equipment items. The equipment is analyzed using a response spectrum or time-history analysis. Both of these methods have been used to qualify equipment for PINGP.

#### 2. Qualification by Test

If the equipment is flexible and too complex to be represented properly by an analytical model, then the equipment is qualified by test. Testing is also performed where the equipment is required to operate during or after a seismic event for which this cannot be established analytically. Seismic tests are performed by subjecting the equipment to vibratory motion which conservatively simulates the motion at the equipment mounting location during an (or several) OBE(s), followed by the vibratory motion associated with an SSE.

#### 3. Qualification by Combination of Test and Analysis

Some electrical equipment and instrumentation are qualified by a combination of test and analysis. This qualification can be achieved through various methods such as extrapolation from similar equipment or similar seismic conditions.

#### 2.3.3 Summary of Codes and Standards

This section summarizes the codes, specifications, standards of practice, and other accepted industry guidelines to the extent applicable in the design and construction of the following:

- Containment the applicable codes, standards, and specifications for the containment are 1 through 23 in Table 2-1 below.
- Containment Internal Structures all of the items listed in Table 2-1 below are applicable for the containment internal structures.
- Safety-Related Structures Outside of Containment all of the items listed in Table 2-1 below are applicable, with the exception of Items 17 and 18.
- Foundations for Seismic Category I Structures the applicable codes, standards, and specifications are 1 through 14 and 19 through 23 in Table 2-1 below.

Table 2-1: List of Codes, Standards, and Specifications			
Specification Reference Number	Specification or Standard Designation	Title	
1	American Concrete Institute (ACI) 318- 71, 77, 83	Building Code Requirements for Reinforced Concrete (Reference 14)	
2	ACI 301	Specifications for Structural Concrete for Buildings (Reference 15)	
3	ACI 347	Recommended Practice for ANSI A145.1 Concrete Formwork (Reference 16)	
4	ACI 305	Recommended Practice for Hot ANSI A170.1 Weather Concreting (Reference 17)	
5	ACI 211.1	Recommended Practice for Selecting Proportions for Normal Weight Concrete (Reference 18)	
6	ACI 304	Recommended Practice for Measuring, Mixing, Transporting, and placing concrete (Reference 19)	
7	ACI 315	Manual of Standard Practice for Detailing Reinforced Concrete Structures (Reference 20)	
8	ACI 306	Recommended Practice for Cold Weather Concreting (Reference 21)	
9	ACI 309	Recommended Practice for Consolidation of Concrete (Reference 22)	
10	ACI 308	Recommended Practice for Curing Concrete (Reference 23)	
11	ACI 214	Recommended Practice for ANSI A146.1 Evaluation of Compression Test Results of Field (Reference 24)	
12	ACI 311	Recommended Practice for Concrete Inspection (Reference 25)	
13	ACI 304	Preplaced Aggregate Concrete for Structural and Mass Concrete (Reference 26)	
14	Report by ACI Committee 304	Placing Concrete by Pumping Method (Reference 27)	
15	AISC-69,78	Specification for the Design, Fabrication, and Erection of Structural Steel for Building (Reference 28)	
16	AWS D1.1	Structural Welding Code (Reference 29)	
17	ASME	Boiler & Pressure Vessel Code, Section III (Reference 30)	
	ASME-1971, S73	Division 1, Subsection NE	

Table 2-1: List of Codes, Standards, and Specifications			
Specification Reference Number	Specification or Standard Designation	Title	
	ASME-1974, S75	Division 1, Subsection NF	
ASME-1973		Division 2, Proposed Standard Code for Concrete Reactor Vessels and Containments Issued for Trial Use and Comments	
	ASME-1980	Division 2, CC 6000	
	ASME-1992	1992 Addenda, Division 1, Section XI, Subsection IWL, IWE	
18	American Public Health Assoc. (APHA)	Test Methods Sulphides in Water, Standard Methods for the Examination of Water and Waste Water (Reference 31)	
19	ASTM	Annual Books of ASTM Standards (Reference 32)	
20	CRSI MSP-1	Manual of Standard Practice (Reference 33)	
21	ANSI N45.2.5	Proposed Supplementary Q.A. Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During Construction Phase of Nuclear Power Plants (Reference 34)	
22	CRD	Chief of Research and Development Standards, Department of the Army, Handbook for Concrete and Cement Volume I and II, Corps of Engineers U.S. Army (Reference 35)	
23	ACI-349-76, 85	Code Requirements for Nuclear Safety Related Concrete Structures (Reference 36)	
24	AISI	Specification for design of cold-formed steel structural members (Reference 37)	

# **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 of the EPRI Report 1025286 (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 Engineer	Plant Operations	Seismic Walkdown Engineer (SWE)	Licensing Basis Reviewer	IPEEE Reviewer	Peer Reviewer
B. Lory (S&A)	X		X			
W. Djordjevic (S&A)			х			
D. Zercher (NSPM)			Х			
D. Cherlopalle (NSPM)			х			X <sup>(1)</sup>
K. Kriesel (NSPM)			X	X <sup>(3)</sup>		
S. Seilhymer (NSPM)		Х				X <sup>(1)</sup>
P. Valtakis (NSPM)	X	х				
T. Bacon (S&A)						X <sup>(2)</sup>
M. Etre (S&A)						x
D. Moore					X	

Notes:

1. Peer Review Team member for SWEL review only.

2. Peer Review Team Leader.

3. 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 of 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: Master 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: SWE
- Seismic Training Completed: EPRI SQUG Training
- Education: BSCE, Michigan Technological University

 Professional Experience: 28+ years of structural and seismic engineering in commercial nuclear industry. Performed the USI A-46 and IPEEE seismic walkdowns for Monticello Nuclear Generating Plant. A registered Professional Engineer in Minnesota and Wisconsin. He works at the Monticello Nuclear Generating Plant as a Design Engineer. Was a Structural Engineer at FluiDyne Engineering and PaR Systems.

#### Dileep Cherlopalle

- Activities Performed: Equipment Selection Peer Review, SWE
- Seismic Training Completed: EPRI NTTF Recommendation 2.3 Plant Seismic Walkdowns Training
- Education: Master of Science in Structural Engineering University of Alaska -Fairbanks
- Professional Experience: 3+ years of experience in commercial nuclear industry. Currently a Design Civil/Structural Engineer at PINGP.

#### Kyle Kriesel

- Activities Performed: Licensing Basis Reviewer, SWE
- Seismic Training Completed: EPRI SQUG Training
- Education: Bachelor of Science in Civil Engineering from North Dakota State University
- Professional Experience: 11+ years of experience in the commercial nuclear industry. A registered Professional Engineer in Minnesota. Worked as a Plant Design Civil/Structural Engineer at Cooper Nuclear Station and PINGP including structures monitoring implementation and structures monitoring program owner.

#### Stephen Seilhymer

- Activities Performed: Equipment Selection Peer Reviewer
- Seismic Training Completed: N/A
- Education: Bachelor of Science in Physics Applied Nuclear Science from Winona State University
- Professional Experience: Reached rank of Electronics Technician First Class and performed as Reactor Operator and Engineering Watch Supervisor on a nuclear powered submarine in the United States Navy. Obtained Senior Reactor Operator License and has completed roles as Equipment Operator, Control Room Supervisor, Shift Manager, Assistant Operations Manager, Licensed Operator Requalification Training Supervisor, and Operations Simulator and Classroom Instructor positions at PINGP. Has a total of 30 years of nuclear experience, with 18 years of experience as a Senior Reactor Operator.

#### Pete Valtakis

- Activities Performed: Equipment Selection
- Seismic Training Completed: N/A
- Education: Bachelor of Science in Physics, Winona State University
- Professional Experience: Acted as a Reactor Operator on a nuclear powered submarine in the United States Navy, and was also assigned as a Leading Petty Officer of the Reactor Controls Division, an Engineering Officer of the Watch, and a Training Coordinator for the Naval Prototype Training Unit. Obtained Senior Reactor Operator License at PINGP and has completed roles as Reactor Operator, Lead Operator, Control Room Supervisor, and Shift Manager at PINGP. Participated in all phases of pre-operational testing and initial criticality of both PINGP nuclear generating units. Has a total of 39+ years of commercial nuclear experience, with 28+ years of experience as a Senior Reactor Operator.

#### Todd Bacon

- Activities Performed: Peer Review Team Leader
- Seismic Training Completed: Near Term Task Force Recommendation 2.3 Plant Seismic Walkdowns
- Education: Bachelor of Science in Civil Engineering from the University of Illinois
   Champaign
- Professional Experience: Mr. Bacon has thirty years of experience in the design and modification of mechanical and structural systems. His responsibilities have included serving as an Engineering Manager involving work from the conceptual design through to the installation support phases of multiple projects. Mr. Bacon has served as Project Engineer and Project Manager for numerous work scope efforts, including coordination of personnel in multiple locations. His efforts have also included significant client and/or regulatory interface, as required. These activities have also included responsibility for budgets, schedules and the technical accuracy of work performed. In addition, he has extensive experience in proposal and report development, as well as personnel training activities. Mr. Bacon's work has involved extensive use of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, including involvement with various piping system related committees.
- Performed: Peer Reviewer

#### Mark Etre

- Activities Performed: Peer Reviewer
- Seismic Training Completed: EPRI SQUG training and Near Term Task Force Recommendation 2.3 – Plant Seismic Walkdowns
- Education: Master of Science in Mechanical Engineering from the Worcester Polytechnic Institute
- Professional Experience: Mr. Etre is a Project Manager in the S&A Boston office. He has managed and led seismic walkdowns and analyses of structures and components. Mr. Etre has more than 20 years of seismic experience serving the nuclear industry. Mr. Etre has participated in numerous USI A-46 and IPEEE projects in response to the requirements of Generic Letters 87-02 and 88-20.

#### David L. Moore

- Activities Performed: IPEEE Reviewer
- Seismic Training Completed: EPRI SQUG Systems and Relay 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 and are as follows:

- Table A-1 is a list of the equipment coming out of Screen #2 and entering Screen #3 for the equipment selection of SWEL 1. This list of equipment is titled Base List 1.
- Table A-2 contains the list of equipment which are required to support Spent Fuel Pool (SFP) Cooling and are classified as Seismic Category 1.
- Table A-3 is the PINGP Unit 1 list of equipment which has gone through the screening process defined in Reference 1 and then selected by the Equipment Selection Team to be seismically inspected in accordance with Reference 1, excluding SFP equipment which is in SWEL 2. This list of equipment is termed SWEL 1.
- Table A-4 is the PINGP Unit 1 list of equipment necessary to support SFP cooling and inventory, has gone through the screening process defined in Reference 1, and then selected from this list to be seismically inspected in accordance with Reference 1. This list of equipment is termed SWEL 2.

# 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 PINGP Unit 1.

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 required for safe shutdown and maintaining containment integrity began with the composite Seismic Qualification Utility Group (SQUG) Safe Shutdown Equipment List (SSEL) (Reference 3). The SSEL was then subjected to the following four screens 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, only items that have a defined seismic licensing basis (Seismic Category I) are to be included in SWEL 1. Each item on the SSEL was reviewed to determine if it had a defined seismic licensing basis. All items identified as Seismic Category I, as defined in Section 12 of the PINGP USAR (Reference 2), were identified as having a defined seismic licensing basis. Electrical enclosures containing Class 1E devices were identified as Seismic Category I. Seismic Category I and Class 1E determination was made through a review of current design and licensing basis documentation.

#### 2. Screen #2 – Equipment or Systems

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 – 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). In Section 3 of Reference 1, the screen for sample considerations is Screen #4. NSPM performed Screen #4 of Reference 1 as Screen #3. The screen for determining supports of the five safety functions (Screen #3 in Reference 1) was performed as Screen #4 for the PINGP. As a result of this change in order, the Base List 1 in Table A-1 of Appendix A of this report is a list of the equipment coming out of Screen #2. Also, this report defines Screen #3 of Reference 1 as Screen #4, and vice versa for Screen #4 of Reference 1.

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 several systems that perform one or multiple safety functions. Further, the systems represented include both frontline and support systems from those listed in Appendix E, *Systems to Support Safety Function(s)*, of Reference 1.

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 each of the classes of equipment listed in Reference 1 Appendix B: Classes of Equipment. 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 classes (12) Air Compressors or (13) Motor Generators.

D. A variety of environments

The location for each item is identified on SWEL 1. The equipment included on SWEL 1 is a representative sample from a variety of environments (locations) in the site.

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

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

F. Contribution to risk

To determine the relative risk significance, the Risk Achievement Worth (RAW) and Fussell-Vesely importance from the internal plant PRA were used. Initiating events, maintenance events and human error events were not considered in the generation of this list. The thresholds for risk significance that were used (Fussell-Vesely risk > 5.0E-3, RAW > 2) are derived from the ANS/AMSE PRA Standard. This PRA Standard was endorsed by the NRC via Regulatory Guide 1.200.

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. Screen #4 – Support for the 5 Safety Functions

This screen ensured that the scope of items included on the SWEL 1 are 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.

It is noted that items on SWEL 1 with a specific safety function(s) are considered frontline systems. Items with a safety-function designation of 'Support System HVAC', 'Support System AC Power', 'Support System DC Power', Engineered Safety Features Actuation System ('ESFAS') or 'Cooling Water' may be categorized as a frontline or support system. Items with a safety function designation of 'Support System HVAC', 'Support System AC Power', 'Support System DC Power', Engineered Safety Features Actuation System ('ESFAS') or 'Cooling Water' support System HVAC', 'Support System AC Power', 'Support System DC Power', Engineered Safety Features Actuation System ('ESFAS') or 'Cooling Water' support at least one of the five safety functions however, the specific safety function(s) are depicted as numbers 1-5 in SWEL 1, corresponding to the 5 safety functions mentioned in the EPRI guidance (Reference 1). SWEL 1 in Table A-3 of Appendix A of this report contains a legend to correlate this number to a specific safety function.

#### 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 plant 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 Seismic Category 1(SC-I) are to be included on SWEL 2 with exception of the SFP structure. As described in Reference 1, the adequacy of the SFP structure is assessed by analysis as a Seismic Category 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, only the SFP pumps and heat exchangers are classified as Non-Safety Related, Seismic Category 1 equipment. Therefore, these equipment items are added to SWEL 2. There are no motor, air, or fluid operated valves in the SFP system flow paths.

#### 2. Screen #2 – Equipment or Systems

This screen considers only those items associated with the SFP that are appropriate for an equipment walkdown process.

The spent fuel pool structure is designed as Class I structure that fully meets the seismic and tornado design criteria given in Section 12 of Reference 2. The fuel pool structure is also designed to withstand the hydraulic pressure of the contained water, as well as other credible static and dynamic load cases (Section 10.2.1.2.1 – Reference 2).

The SFP gates are between the pools and the transfer canal. These gates are part of the overall SFP structure and are designed as SC-1 structures; therefore, the SFP transfer gates are included in the SFP structural analysis and are thereby excluded from being added to SWEL 2.

#### 3. Screen #3 – Sample Considerations

This screen 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 50.54(f) Letter. The results of this screen are provided in Table A-2 of Appendix A of this report.

The following attributes were considered in the development of SWEL 2:

A. A variety of types of systems

The system is identified for each item on SWEL 2. The equipment included on SWEL 2 is a representative sample of the systems associated with the SFP and its cooling system.

B. Major new and replacement equipment

The equipment included on SWEL 2 includes items that have been modified or replaced over the past several years. No such equipment has been identified.

C. A variety of types of equipment

The equipment class is identified for each item on SWEL 2. The equipment included on SWEL 2 is a representative sample of each class listed in Reference 1 Appendix B: Classes of Equipment. Where appropriate, at least one piece of equipment from each class is included on SWEL 2.

The classes/types of equipment include; (5) Horizontal Pumps and (21) Tanks and Heat Exchangers. None of the valves in the SFP system are power-operated (motor, pneumatic, hydraulic); therefore, no valves are included on SWEL 2.

D. A variety of environments

The location for each item is identified on SWEL 2. The equipment included on SWEL 2 is to represent a variety of environments (locations) for equipment associated with the SFP and its cooling system. All items are located in the Auxiliary Building.

#### 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 SC-1 items, but are 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 an SSE.

Excerpts from the PINGP USAR 10.2.2 document the design features which preclude rapid drain down of the Spent Fuel Pit.

The spent fuel pool cooling system is designed to remove the heat generated by stored spent fuel elements from the spent fuel pool. System design does not incorporate redundant components except for the spent fuel pool pump and the heat exchanger. Alternate cooling capability can be made available under anticipated malfunctions or failures; System piping is so arranged that failure of any pipeline does not drain the spent fuel pool below the top of the stored spent fuel elements.

The spent fuel pool pump suction line is located above the fuel assemblies; this prevents uncovering fuel assemblies during loss of water as a result of a possible suction line rupture.

The most serious failure of this system is complete loss of water in the storage pool. To protect against this possibility, piping connections enter the top of the spent fuel pool as stated above except for the drain connection from the transfer canal to the holdup tank recirculation pump. Even if the water in the transfer canal were completely drained, the active portion of the spent fuel would not be uncovered due to the elevation of the bottom of the gate connection in the wall separating the transfer canal from the spent fuel pool pump suction connection only goes approximately 4 feet below the normal water level.

The cooling water return line which extends 10 feet below the normal water level is prevented from siphon draining the pool by a 0.5 inch hole in the pipe located 4 feet below the normal water level.

Based on the PINGP spent fuel pool design described, the spent fuel pool does not have a rapid drain down scenario.

#### 4.2.3 SWEL 2 Development Conclusion

There are no rapid drain-down considerations included in the PINGP SWEL 2 list. The SFP is shared between both units at the PINGP. The results of the seismic walkdowns for SWEL 2 are presented in this report for the PINGP Unit 1. The seismic walkdown report for PINGP Unit 2 does not contain a discussion of SWEL 2 walkdowns.

# 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 on the SWEL 1 and SWEL 2 as provided in Appendix A of 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 Walk-by Checklists (AWCs) provided in Appendix C of Reference 1. Seismic Walkdowns were performed and a SWC completed for 80 of the 107 components identified on the PINGP Unit 1 SWEL 1 and 2 of 2 for SWEL 2. The completed SWCs 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 site's document management system. Seismic Walkdowns are deferred for the remaining 29 items to a unit 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, current plant conditions, or due to the electrical safety hazards posed while the equipment is operating. Appendix D of this report identifies the inaccessible 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 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 and a licensing basis evaluation was not necessary. However, if it was not possible to judge whether the anchorage is degraded, nonconforming, or unanalyzed, then the condition was entered into the Corrective Action Program as a potentially adverse seismic condition.

#### 5.2.2 Configuration Verification

In addition to the visual inspections of the anchorage as described above, for at least 50% of applicable equipment items, the configuration of the installed anchorage was verified to be consistent with existing plant documentation.

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.

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

- Design drawings
- Seismic qualification reports of analyses or shake table tests
- IPEEE or USI A-46 program documentation, as applicable

See Table 5-1 below for the accounting of the 50% anchorage configuration verifications, and the individual SWC forms in Appendix B for the specific drawings used for each anchorage configuration verification.

Table 5-1: Anchorage Configuration Confirmation					
SWEL	No. of SWEL Items (A)	Line Mounted Items (B)	Required to Verify? (A-B)/2	Items Verified	
1	107	30	39	32	
2	2	0	1	2	
Totals	109	30	40	34 (11 anchorage verifications have been deferred and will be completed as outlined in Appendix D)	

#### 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 and panels was sent to all licensees through the Nuclear Energy Institute (NEI). In this document, 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 its anchorage. 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 for evidence that internal components are or 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 Reference 1.

Due to the timing of this communication, PINGP did not perform all of the internal inspections of electrical cabinets and panels. The remaining inspections were deferred to a future refueling outage or another 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.

This internal inspection of electrical cabinets and panels was performed at PINGP to the extent allowed by the plant. Any situations that posed a danger to personnel or the proper operation of the plant were deferred to a future outage and are identified in Table D-1 of Appendix D of this report. The Seismic Walkdown Checklists (SWC) for the equipment identified in Table D-1 that cannot be opened for internal inspections will be revised at the time of the supplemental walkdown to indicate the results of these internal inspections.

Any identified other adverse seismic conditions are documented on the items' SWC 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 11 concerns identified and each of these was entered into the plant's Corrective Action Plan (CAP). All of the identified concerns were assessed and it was concluded that the anomaly or issue would not prevent the associated equipment from performing its safety-related function(s). 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 29 Area Walk-bys were performed for PINGP Unit 1.

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 verify compliance with site procedures (Reference 38).
- General plant conditions were inspected to verify compliance with site procedures (Reference 39).

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.

One area of particular concern to the industry is threaded fire protection piping with long unsupported spans. If adequate seismic supports are present or there are isolation valves near the tanks or charging sources, flooding may not be a concern. Numerous failures have been observed in past earthquakes resulting from sprinkler head impact. Less frequent but commonly observed failures have occurred due to flexible headers and stiff branch pipes, non-ductile mechanical couplings, seismic anchor motion and failed supports.

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

During the Area Walk-Bys the SWEs identified several instances where the seismic housekeeping was not in accordance with site procedures. These instances were noted on the AWCs and the issues were entered into the site CAP. Table 5-3 at the end of this section provides a summary of the issues identified during the Area Walk-Bys. The issues are associated with Area Walk-By designations, which are provided in Appendix C.

In total, 31 issues were identified during the Area Walk-Bys and entered into the site's CAP. A total of eleven observations identified during the Area Walk-Bys are being resolved in the work management process, and are conservatively reported in this table for tracking purposes. No potentially adverse seismic conditions were identified that resulted in a seismic licensing basis evaluation.

Table 5-2: Prairie Island Unit 1 SWC CAP Status						
Equipment ID	Description of Issue	CAP#	Status			
Multiple	Multiple open "S" hooks for lighting fixtures were identified during the Seismic Walkdowns. An action request was initiated to track all of these occurrences and perform an extent of condition. See Appendix F for all open "S" hook observations.	1352001	Open – Work Request (WR) 84434, 83556, and 83533 are associated with this observation.			
55000	Bottom latch has some apparent deterioration degradation due to engine vibration. This condition does not affect seismic capacity; however recommend repair for maintenance purpose.	1353290	Closed to WR 83855.			
053-321	The day tank foundation has eight (7/8" diameter) anchors. One of these anchors appears to not be fully seated.	1352845	Closed to WR 83768. WR is complete.			
111M/XFMR	There is a coil of cable that looks like it is coiled up using electrical tape. This is not a seismic issue with 111M XFMR.	1353147	Closed to WR 83841. WR is complete.			
145-122	Foreign material (black insulation 1" x 2" x 8") found behind the 12 CC pump at column base 1-CCH-375 (support number).	1352321	Complete.			
CV-31652	The conduit feeding power to CV-31652 has one conduit clamp that is missing a nut. SWE's judge existing conduit configuration is still seismically adequate and acceptable. However, it is recommended that the nut is put back on.	1353581	Closed to WR 83924. WR is complete.			

Table 5-2: Prairie Island Unit 1 SWC CAP Status					
Equipment ID	Description of Issue	CAP#	Status		
CV-31652	SWEs noted that CV-31652 F/R and CV-31653 F/R are mounted to a single vertical Unistrut with just one machine screw. The machine screws are not fully threaded into their associated nuts. Instead they are approximately half threaded into the nuts. SWEs judge current configuration as acceptable for seismic loading, but full thread engagement is needed.	1353368	Open - WR 83878 is associated with this observation.		
E-1	The partition wall next to E-1 is missing all six floor bolts. The bolts connecting the partition wall to the vertical walls are in place. Is the partition wall seismically qualified in this configuration?	1357500	Closed to WR 84916 and WO 467570.		
MCC 1T2 – XFR SW	There is foreign material behind the transfer switch 1, near the wall (an O ring that is red in color). It is a housekeeping issue, and not a seismic concern.	1352321	Complete.		
035-012	There is an abandoned hanger rod in the ceiling (red tape on the tip) above HX.	1352373	Closed to WR 83651 and WO 465606.		
035-012	There is a bolt missing in a base plate next to MCC 1GA BUS 1.	1352717	Closed to WR 83744. WR is complete.		
Table 5-3: Prairie Island Unit 1 Area Walk-By CAP Status					
--	--	---------	---	--	
Area Walk-By Designation	Ik-By Description of Issue		Status		
Multiple	Multiple open "S" hooks for lighting fixtures were identified during the Seismic Walkdowns. An action request was initiated to track all of these occurrences and perform an extent of condition. See Appendix F for all open "S" hook observations.	1352001	Open - WR 84434, 83556, and 83533 are associated with this observation.		
3	Two drums are present under the component cooling heat exchanger to collect leak off. The drums are poorly tied off by rope to a small copper drain line for the 11 component cooling pump unit cooler.	1353280	Closed to WR 83853, which is complete.		
3	One of the two floor brackets for the unistrut that supports the component cooling motor power cables appears to be bent and the anchor is loose. There is a tygon tube wedged under the corner.	1353327	Closed to WR 83865 and WO 465979.		
-10	Missing anchor on stanchion beneath 121 Loop A Main Steam ISO Valve drain line.	1353371	Closed to WR 83874.		
10	One light fixture is abandoned in overhead near pipe support 1-CCH-311 and should be removed.	1353409	Closed to WR 83892.		
13	Behind the cabinet RMU2N, one wing nut holding the emergency battery EL-28 is missing.	N/A	WR 83724 is complete.		
15	There are lighting diffusers tied off to the support grid. Unit 1 and Unit 2 "C" panels have a fluorescent light fixture on chains too close (within 1"-2") to the panel.	1352209	Open.		
15	Unit 1 and Unit 2 "E" panels have side panels that have slid out of position. This is a housekeeping issue and not a seismic concern.	1352102	Closed to WR 83579, which is complete.		
15	Fire extinguisher bracket 224 has a rotated bracket (into the insulation) and should be repaired.	N/A	WR 83584 initiated.		
15	The filing cabinets adjacent to the main control board in both Unit 1 and Unit 2 are close to the main control board.	1357683	Open.		

Table 5-3: Prairie Island Unit 1 Area Walk-By CAP Status				
Area Walk-By Designation	Description of Issue		Status	
15	The cart adjacent to the Protection Systems III and the cart adjacent to cabinets RPI-1, -2, and -3 in Unit 1 are close to the equipment. The chain is not used to restrain the carts.	1357686	Open.	
22	As a precaution, the SWEs recommend closing the door pulley "S" hook above door 228	1352343	Closed to WR 83645 and WR 83646.	
19	The 121 filtered water strainer adjacent to the diesel oil day tank skid has corroded anchors (wet environment).	1352851	Closed to WR 83771 and WR 83772.	
1	The drip pan beneath the 12 containment spray pump is missing a bolt on the south side.	1353388	Closed to WR 83885 and WO 465983.	
6	Duct tape needs to be removed from the special vent zone line discussed in question 4.	1352391	Closed.	
6	The light fixture above the "VFD" cabinets for 11 and 13 charging pumps is close (roughly 1" gap) to the conduits running into the top of the VFDs.	1352209	Open.	
6	There are two abandoned hanger rods above the component cooling line with hanger rod 1- RHRH-385 near MCC2K BUS 2.	1352549	Closed to WR 83712 and WO 465652.	
5	A top cover plate wing nut is missing from the 2RE-39 radiation monitor. There is also a loose screw on the side door cover. The monitor is resting on the floor near the wall, and is located between the 22 component cooling pump and the stairs to the upper level.	1352076	Closed to WR 83571.	
7	There were scaffold carts within 2" of touching the MCC 1L, Bus 2. The cart wheels are chocked but in the wrong orientation. The cart configuration allowed the cart to slide into the MCC. The condition was fixed upon discovery. Site personnel chocked the wheels in the acceptable orientation.	1355467	Closed.	

Table 5-3: Prairie Island Unit 1 Area Walk-By CAP Status				
Area Walk-By Designation	Description of Issue C		Status	
8	Terminal Box - A1749 (terminal box for high flux) is missing an anchor bolt to wall at the lower right corner. There are three other bolts, therefore SWEL judged that the terminal bolt is seismically anchored to the wall and is acceptable.	N/A	WR 83891 initiated.	
16	A wood 10"x20" insert on the floor next to the grating is a combustible.	1353367	Closed to WR 83876 and WO 465981.	
16	The cable trays adjacent to the south wall house cables which are resting on top of, and out of, a tray that is unrestrained laterally.	1353415	Closed to WR 83893 and WO 465985.	
17	There are two loose 1/4" concrete anchors on the bracket supporting PI-17652.	N/A	WR 83868 initiated.	
21	There is a missing fastener on the guard for 121 instrument air compressor.	1352975	Closed to WR 83793 and WO 466348.	
21	The chain fall for 2AF01301 can potentially strike MCC 1A BUS 1.	1352961	Closed to WR 83796 and WO 465937.	
25	The back cover bolts are loose for 111M voltage regulator cabinet.	N/A	WR 83828 initiated.	
25	A conduit box is attached to Unistrut, and both screws are loose. They are located approximately 10' from the floor and above the voltage regulator.	N/A	WR 83834 is complete.	
25	Vertical rigid conduit to box CS19148 (BUS 111 safeguards SWGR unit cooler) and Panel 132-10 has a conduit clamp not attached to the conduit. Located on column E9, it has a misplaced loose attachment at about 10' from floor underneath duct.	N/A	WR 83829 is complete.	
25	The conduit bracket attached to the Unistrut for the conduit running to 480V Bus 111 and 112 control panel seems to be loose with a gap between the bracket and the Unistrut.	N/A	WR 83833 is complete.	

Table 5-3: Prairie Island Unit 1 Area Walk-By CAP Status			
Area Walk-By Designation	Description of Issue	CAP#	Status
25	One of the two supports for a light fixture is loose from the wall and the upper anchor bolt for the support is not fully engaged. SWEs judged that the light fixture will remain in place, but recommend that the bolt be tightened.	N/A	WR 83834 is complete.
25	The conduit support on top of the RMU 213 cabinet, on the west wall, has a bolt that is not fully engaged. The support is located about 10' from floor level.	N/A	WR 83836 is complete.
25	An electrical wire is tie wrapped to the conduit above door 54, next to an electrical cable tray.	1353147	Closed to WR 83841, which is complete.
25	A light fixture may come in contact with the flexible conduit going into the 11A transformer. It is located on top of 11A transformer with only 2" of clearance.	1353277	Closed to WR 83854.
26	The emergency light EL15, located on the safety related block wall number 26 and above the test station for the breaker cabinets, has a missing wing nut on the one side for the threaded rod holding EL15 on the wall bracket.	1352966	Closed to WR 83790, which is complete.
26	Above breaker 15-6, the conduit support attachment seems to be loose. It is connecting the conduit to the Unistrut.	1353223	Closed to WR 83835, which is complete.
28	The unistrut support for panel 1LPB-4 and 1RPB3 seems to have no anchor bolts on one of the legs. There are anchor bolts for the other leg. The leg might have poor quality fillet welds. 1LPB-4 is mounted on a unistrut frame that also supports 1RPB3 and the three transformers above. The unistrut frame is clip angled to a structural column in three places and is welded to an I-beam at both ends. If there is no fillet weld on the left leg, the frame is still seismically adequate and will not pry off the wall and impact MCC 1GA Bus 1.	1352426	Closed to WR 83676 and WO 465598.
28	The cover plate on the end of the MCC 1GA BUS 2 cabinet is missing a bolt.	1352415	Closed to WR 83671 and WO 465605.

Table 5-3: Prairie Island Unit 1 Area Walk-By CAP Status			
Area Walk-By Designation	A-By Description of Issue CAP#		Status
28	A single light fixture has duct tape and it needs to be removed for housekeeping.	1352391	Closed.
28	There is scaffolding tied to the spent fuel pool heat exchanger 122. One of the scaffold couplers is within 1" of touching CC-43-7.	1352559	Closed.
29	There are stored Operations test equipment above the electrical cabinet 1RPB6 next to the 121 spent fuel pool pump. Also, there are electrical wires loosely tied around the piping next to the 184 entry door.	N/A	WR 83723
29	A 3" copper line is running along the ceiling above 121 and 122 pumps. It has beam clamps in the same direction and a broken hanger rod. This configuration may be vulnerable in a seismic event.	1352733	Closed to WR 83747 and WO 465742.
29	There is lead radiation protection shielding chained to the wall near the spent fuel pool skimming pumps. If the shielding falls, it could potentially damage the tubing.	1352586	Open. WR 83641 is also associated with this issue.

# 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 should be entered into the plant's CAP where it will be determined whether 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 plant'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.

On October 23, 2008, the NRC Staff transmitted a Request for Additional Information (RAI) to NSPM as part of their review of the PINGP plant license renewal application (Reference 5). The NRC's RAI "SAMA 3.c" requested the following information:

"As stated in the IPEEE seismic analysis, several potential seismic outliers were dispositioned through an analysis process which determined that the impacted function was not required or could be recovered, or that an alternate means for performing the associated function was available...For those outliers stated as being resolved through the closure of USI A-46 (IPEEE Section A.2.4.1.1), confirm that all corrective actions have been completed, and that their use is supported by procedures and training, as appropriate." (Reference 5)

NSPM provided a response to this RAI in a letter dated November 21, 2008 (Reference 40). In its response, NSPM stated that components listed in Section A.2.4.1.1 of the PINGP IPEEE provide a summary of the SQUG outliers that pertain to the IPEEE scope. The NSPM RAI response also noted that in a letter from the NRC to Northern States Power dated August 5, 1998, Resolution of Unresolved Safety Issue (USI) A-46 for PINGP, Units 1 and 2 (TAC NOS. M69474 and M69475), the NRC issued a Safety Evaluation stating that the NRC had received notification that all outliers had been resolved, except for four equipment outliers. NSPM had notified the NRC of equipment outliers, resolution descriptions, and resolution timeline, if not already completed, in Attachment 2 of an RAI response letter sent to the NRC from NSPM dated November 17, 1997 (Reference 41). In this 1997 letter, NSPM committed to resolve the four remaining equipment outliers during the PINGP Unit 2 outage in December 1998 and the PINGP Unit 1 outage in May 1999.

Of those four remaining equipment outliers, three (3) were related to components listed in section A.2.4.1.1 of the Prairie Island IPEEE. The equipment included control valves CV-39409, CV-39401, and Motor Control Center MCC-2LA2. The actions taken to resolve the three outliers are described below in Table 7-1. Per the work completed as described below, all outliers identified in Section A.2.4.1.1 of the PINGP IPEEE have been resolved. Aside from this completed work, no additional procedure changes or training was required to close identified outliers.

One of these three outliers was walked down as part of the NTTF Recommendation 2.3 Seismic Walkdowns. CV-39401 was selected as a component for SWEL 1 for PINGP Unit 1. The Seismic Walkdown Checklist for this component is provided in Appendix B of this report.

Table 7-1: Prairie Island IPEEE Seismic Vulnerabilities			
Equipment Description Potential Failure Mode		Resolution	Date Completed
CV-39409	Control valve CV-39409 was identified as an outlier because contact with surrounding conduits could break the solenoid tap connection.	The airline to valve CV-39409 was relocated such that the airline is greater than two (2) inches from other electrical conduits in the area.	1R20 refueling outage in May of 1999
CV-39401	Control valve CV-39401 was identified as an outlier because contact with surrounding conduits could break the solenoid tap connection.	The airline and associated solenoid valve for CV-39401 were rerouted so that the airline and solenoid valve are a minimum of two inches away from existing conduits. Also, the electrical junction box associated with the solenoid valve for CV-39401 was relocated such that the box is greater than two inches from other electrical conduits in the area.	1R20 refueling outage in May of 1999
MCC-2LA2	Motor Control Center MCC-2LA2 was identified as an outlier because it was observed that the MCC rocked about its weak axis when bumped, making the welding at the base suspect.	New angle support braces were installed at the base of MCC-2LA2 to increase the structural stability of the MCC.	2R19 refueling outage in November of 1998

# Peer Review

A peer review team consisting of four individuals was assembled and peer reviews were performed in accordance with Section 6, Peer Reviews 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 and the summary Peer Review Report is provided in Appendix E of this report.

## 9 References

Reference drawings related to SWEL items are provided in the Seismic Walkdown Checklists and if applicable, in the Area-Walkdown Checklists.

- 1. EPRI Technical Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic*, dated June 2012.
- 2. Prairie Island Nuclear Generating Plant Updated Final Safety Analysis Report (USAR), Revision 31.
- NSP (M.D. Wadley) Letter to NRC, "Response to Generic Letter 87-02, Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Issue (USI) A-46," dated November 20, 1995.
- 4. Pioneer Service & Engineering Co. Report JAB-PS-02; "Prairie Island Nuclear Generating Plant Earthquake Analysis of the Reactor-Auxiliary-Turbine Building", dated November 29, 1968.
- 5. NRC Letter to NSPM, "Request for Additional Information Regarding the Analysis of Severe Accident Mitigation Alternatives for Prairie Island Nuclear Generating Plant, Units 1 and 2," dated October 23, 2008, ADAMs Accession No. ML082950604.
- 6. NRC (E Leeds and M Johnson) 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," dated March 12, 2012, ADAMS Accession No. ML12056A046.
- 7. John A. Blume & Associates, Engineers, "Prairie Island Nuclear Generating Plant Earthquake Analysis: Reactor-Auxiliary-Turbine Building Response Acceleration Spectra", JAB-PS-04, February 16, 1971.
- 8 NRC Letter, "Endorsement of Electric Power Research Institute (EPRI) Draft Report 1025286, 'Seismic Walkdown Guidance," dated May 31, 2012, ADAMS Accession No. ML12145A529.
- 9. Not used.

- 10. NSPM Letter to NRC, "Prairie Island 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.
- 11. Not used.
- 12. Not used.
- 13. Not used.
- 14. ACI 318-71, 77, 83 Building Code Requirements for Reinforced Concrete
- 15. ACI 301, Specifications for Structural Concrete for Buildings
- 16. ACI 347, Recommended Practice for ANSI A145.1 Concrete Formwork
- 17. ACI 305, Recommended Practice for Hot ANSI A170.1 Weather Concreting
- 18. ACI 211.1, Recommended Practice for Selecting Proportions for Normal Weight Concrete
- 19. ACI 304, *Recommended Practice for Measuring, Mixing, Transporting, and placing concrete*
- 20. ACI 315, Manual of Standard Practice for Detailing Reinforced Concrete Structures
- 21. ACI 306, Recommended Practice for Cold Weather Concreting
- 22. ACI 309, Recommended Practice for Consolidation of Concrete
- 23. ACI 308, Recommended Practice for Curing Concrete
- 24. ACI 214, Recommended Practice for ANSI A146.1 Evaluation of Compression Test Results of Field
- 25. ACI 311, Recommended Practice for Concrete Inspection
- 26. ACI 304, Preplaced Aggregate Concrete for Structural and Mass Concrete
- 27. Report by ACI Committee 304, Placing Concrete by Pumping Method
- 28. AISC-69,78 Specification for the Design, Fabrication, and Erection of Structural Steel for Building
- 29. AWS D1.1, Structural Welding Code
- 30. ASME Boiler & Pressure Vessel Code, Section III -

ASME-1971, S73 Division 1, Subsection NE

ASME-1974, S75 Division 1, Subsection NF

ASME-1973 Division 2, *Proposed Standard Code for Concrete Reactor Vessels and Containments Issued for Trial Use and Comments* ASME-1980 Division 2, CC 6000

ASME-1992 1992 Addenda, Division 1, Section XI, Subsection IWL, IWE

31. American Public Health Assoc. (APHA), Test Methods Sulphides in Water, Standard Methods for the Examination of Water and Waste Water

- 32. ASTM Annual Books of ASTM Standards
- 33. CRSI, MSP-1, Manual of Standard Practice
- 34. ANSI N45.2.5, Proposed Supplementary Q.A. Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During Construction Phase of Nuclear Power Plants
- 35. CRD, Chief of Research and Development Standards, Department of the Army, Handbook for Concrete and Cement Volume I and II, Corps of Engineers U.S. Army
- 36. ACI-349-76, 85, Code Requirements for Nuclear Safety Related Concrete Structures
- 37. AISI, Specification for design of cold-formed steel structural members
- 38. Prairie Island Nuclear Generating Plant Maintenance Procedure D80, Rev. 26, "Scaffolding, Ladders and Cable Tray Platforms."
- 39. Prairie Island Nuclear Generating Plant Seismic Housekeeping Procedure H41, Rev. 12, "Control of Temporary Structures and Equipment."
- 40. NSPM (M.D. Wadley) Letter to NRC, "Responses to NRC Requests for Additional Information Dated October 23, 2008 Regarding Application for Renewed Operating Licenses," dated November 21, 2008, ADAMS Accession No. ML083370505.
- 41. NSPM (J.P. Sorensen) Letter to NRC, "Response to Request for Additional Information on the Prairie Island Nuclear Generating Plant, Units 1 and 2, Resolution of Unresolved Safety Issue A-46 (TAC Nos. M69474 and M69475)," dated November 17, 1997.

## A Equipment Lists

Appendix A contains the equipment lists that were developed as part of equipment selection for the SWEL. Note that because no Rapid Drain-Down items existed for PINGP, there is no Rapid Drain-Down Equipment List.

The following contents are found in Appendix A:

Table A-1, Prairie Island Unit 1 - Base List 1	A-2
Table A-2, Prairie Island - Base List 2	A-17
Table A-3, Prairie Island Unit 1 - SWEL 1	A-18
Table A-4, Prairie Island - SWEL 2	A-27

#### A.1 Equipment Selection – Base List 1

Table A-1 is a list of the equipment coming out of Screen #2 and entering Screen #3 for development of the SWEL 1. 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."

	Table A-1: Prairie Island Unit 1 - Base List 1		
ſ	Equipment Tag	Description	
	16143	D1 DSL GEN ENG CRANKCASE PS	
ſ	16144	D2 DSL GEN ENG CRANKCASE PS	
ſ	16206	D1 DSL GEN CLNT FROM ENG JCKT HI TRIP TS	
ſ	16207	D2 DSL GEN CLNT FROM ENG JCKT HI TRIP TS	
Ī	17700	11 AFP LO DISCH PRESS TRIP PS	
	17701	22 AFP LO DISCH PRESS TRIP PS	
	17704	11 AFP LO SUCT PRESS TRIP PS	
ſ	17776	12 AFWP LO SUCT PRESS TRIP PS	
	17777	12 AFP LO DISCH PRESS TRIP PS	
	19603	12 & 14 FCU CLG WTR RTN ORIFICE B-P VLV ES	
[	21005	LOOP A CLG WTR HDR P XMTR	
	21006	LOOP B CLG WTR HDR P XMTR	
	21033	12 MD AUX FW PMP DSCH P XMTR	
	21034	11 TD AUX FW PMP DSCH P XMTR	
	21230	11 CNTMT FCU CLG WTR OUTL P XMTR	
	21231	12 CNTMT FCU CLG WTR OUTL P XMTR	
	21232	13 CNTMT FCU CLG WTR OUTL P XMTR	
ļ	21233	14 CNTMT FCU CLG WTR OUTL P XMTR	
	22017	D1 DSL GEN RM TEMP XMTR	
	22024	121 MD CLG WTR PMP AREA T XMTR B	
	23122	AUX FW TO 11 STM GEN F XMTR	
	23127	AUX FW TO 12 STM GEN F XMTR	
	23128	AUX FW TO 21 STM GEN F XMTR	
	23129	AUX FW TO 22 STM GEN F XMTR	
	27145	AUX FW TO 11 STM GEN F ORIF	
ļ	27147	AUX FW TO 12 STM GEN F ORIF	
	31211	CHG LN TO 21 REGEN HT EXGR CV	
	31420	CHG LINE TO 22 RCS LOOP COLD LEG ISOL CV	
ļ	32138	13 FC CLG WTR RTRN ISOL MV A	
	32139	13 FC CLG WTR RTRN ISOL MV B	
ļ	32378	13 FC CLG WTR INLT ISOL MV	
	33186	D1 DSL GEN WTR SPLY SV	
	33187	D2 DSL GEN WTR SPLY SV	
	33199	11 LOOP A MN STM HDR AIR SPLY SV A	
	33201	11 LOOP A MN STM HDR AIR EXHT SV A	
ļ	33254	12 LOOP B MN STM HDR AIR SPLY SV B	
	33255	12 LOOP B MN STM HDR AIR EXHT SV A	
	33285	11 TD AUX FW PMP RCRC/LUBE OIL CLG SV	
ļ	33286	12 MD AUX FW PMP RCRC/LUBE OIL CLG SV	
ļ	33371	11 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV	
	33372	11 FAN COIL UNIT NORM DSCH TO GAP & STRUC DMPR S	

Table A-1: Prairie Island Unit 1 - Base List 1			
Equipment Tag	Description		
33373	12 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV		
33374	12 FAN COIL UNIT NORM DSCH TO GAP & STRUC DMPR S		
33375	13 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV		
33376	13 FAN COIL UNIT NORM DSCH TO GAP & STRUC DMPR S		
33377	14 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV		
33378	14 FAN COIL UNIT DSCH TO GAP & STRUC DMPR SV		
33644	D1 DSL GEN AIR STRT SV A		
33646	D2 DSL GEN AIR STRT SV A		
33693	11 SCVNG & COMBTN AIR DMPR SV A		
33694	11 CLASS I ROOF EXHT FAN DMPR SV		
33702	121 CONT RM AIR HNDLR OA SPLY DMPR SV		
33704	122 CONT RM AIR HNDLR DSCH DMPR SV A		
33709	121 CONT RM PAC FLTR SPLY DMPR SV		
33711	122 CONT RM PAC FLTR SPLY SV		
33821	122 CONT RM AIR HNDLR DSCH DMPR SV B		
33828	11 SCVNG & COMBUSTION AIR DMPR SV B		
33987	121 DSL GEN RM AIR DMPR SV		
37201	11 & 13 FCU CLG WTR RTN ORIF B-P SV		
37203	12 & 14 FCU CLG WTR RTN ORIF B-P SV		
55000	D1 DSL GEN GAUGE PANEL (DGP)		
55300	D1 DSL GEN ENG/GEN PANEL (EGP)		
55400	D1 DSL GEN AUX CONT PNL		
55410	D1 REMOTE CONTROLS ISOLATION PANEL		
55500	D2 DSL GEN GAUGE PANEL (DGP)		
55800	D2 DSL GEN ENG/GEN PANEL (EGP)		
57303	121 CONT RM WTR CHLLR LCL CONT PNL		
57304	122 CONT RM WTR CHLLR LCL CONT PNL		
70300	12 DD CLWP LCL PNL		
70385	121 SFGDS TRAVELING SCRN DIFF CONT PNL		
70386	122 SFGDS TRAVELING SCRN DIFF CONT PNL		
032-011	121 D1 DIESEL GENERATOR EXHAUST FAN		
032-012	122 DIESEL GENERATOR ROOM EXHAUST FAN		
032-041	121 D1 DIESEL GENERATOR SUPPLY FAN		
032-042	122 D2 DIESEL GENERATOR SUPPLY FAN		
032-141	121 RELAY & COMPUTER ROOMS RETURN FAN		
032-231	121 D1 DIESEL GENERATOR OUTSIDE EXHAUST FAN		
032-232	122 D2 DIESEL GENERATOR OUTSIDE EXHAUST FAN		
032-292	122 CONT RM CLEAN-UP FAN		
034-011	D1 DSL GEN		
034-021	D2 DIESEL GENERATOR		
045-271	121 DSL GEN OIL STOR TK SUBMERSIBLE PUMP		
045-273	123 DSL GEN OIL STOR TK SUBMERSIBLE PUMP		
045-301	121 DSL CLG WTR PMP OIL STOR TK SUBMERSIBLE PMP		
045-302	122 DSL CLG WTR PMP OIL STOR TK SUBMERSIBLE PMP		
045-591	121 CONTROL ROOM CHILLED WATER PUMP		
045-592	122 CONTROL ROOM CHILLED WATER PUMP		
046-031	121 D1 DIESEL GENERATOR STARTUP AIR RECEIVER		
046-031A	D1 DSL GEN START-UP AIR RCVR A		

Table A-1: Prairie Island Unit 1 - Base List 1			
Equipment Tag	Description		
046-032	122 D2 DIESEL GENERATOR STARTUP AIR RECEIVER		
053-201	121 D1 DIESEL GENERATOR FUEL OIL DAY TANK		
053-201	D1 DSL GEN FUEL OIL DAY TANK		
053-202	122 D2 DIESEL GENERATOR FUEL OIL DAY TANK		
053-221	121 DIESEL GENERATOR OIL STORAGE TANK		
053-223	123 DIESEL GENERATOR OIL STORAGE TANK		
053-251	121 COOLING WATER PUMP DIESEL OIL STORAGE TANK		
053-252	122 COOLING WATER PUMP DIESEL OIL STORAGE TANK		
053-321	12 COOLING WATER PUMP DIESEL OIL DAY TANK		
053-321	12 DD CLG WTR PMP DSL OIL DAY TNK		
053-381	121 CONTROL ROOM CHILLED WATER EXPANSION TANK		
053-382	122 CONTROL ROOM CHILLED WATER EXPANSION TANK		
053-382	122 CONT RM CHLD WTR EXPN TNK		
053-481	121 D1 DIESEL GENERATOR EXPANSION TANK		
053-482	122 D2 DIESEL GENERATOR EXPANSION TANK		
067-011	121 SAFEGUARD TRAVELING WATER SCREEN		
067-012	122 SAFEGUARD TRAVELING WATER SCREEN		
069-161	121 D1 DIESEL GENERATOR AIR INTAKE FILTER		
069-162	122 D2 DIESEL GENERATOR AIR INTAKE FILTER		
069-242	122 CONT RM PAC FLTR		
074-031	121A RELAY ROOM FAN-COIL UNIT		
074-032	121B RELAY ROOM FAN-COIL UNIT		
074-033	122A RELAY ROOM FAN-COIL UNIT		
074-034	122B RELAY ROOM FAN-COIL UNIT		
075-011	121 CONTROL ROOM WATER CHILLER		
075-012	122 CONTROL ROOM WATER CHILLER		
076-021	121 CONTROL ROOM AIR HANDLER		
076-022	122 CONTROL ROOM AIR HANDLER		
078-011	121 D1 DIESEL GENERATOR EXHAUST MUFFLER		
078-012	122 D2 DIESEL GENERATOR EXHAUST MUFFLER		
078-021	121 D1 DIESEL GENERATOR AIR INTAKE SILENCER		
078-022	122 D2 DIESEL GENERATOR AIR INTAKE SILENCER		
1 CRDM/XFMR	CRDM MAIN CONTROL TRANSFORMER		
101/XFMR	101 TRANSFORMER		
102/XFMR	102 TRANSFORMER		
11 BATT	11 STATION BATTERY		
<u>11 BATT</u>	11 STATION BATTERY		
11 BATT CHG	11 BATTERY CHARGER		
11 BATT CHG	11 BATTERY CHARGER		
11 BATT CHG/XFM	11 BATTERY CHARGER TRANSFORMER		
11 IBA/XFMR	INTERRUPTABLE BUS AUX TRANSFORMER		
11 INV	11 INVERTER		
110BT/PT	110 BT POTENTIAL TRANSFORMER		
111M/XFMR	111M TRANSFORMER		
112M/XFMR	112M TRANSFORMER		
113-011	12 CL PUMP DIESEL START-UP AIR COMPRESSOR		
117-111	11 AUXILIARY FEEDWATER PUMP LUBE OIL COOLER		
117-112	12 AUXILIARY FEEDWATER PUMP LUBE OIL COOLER		

Table A-1: Prairie Island Unit 1 - Base List 1			
Equipment Tag	Description		
117-121	12 CL PUMP GEAR OIL COOLER		
11M BAT CHG/XFM	11 MOBILE BATTERY CHARGER TRANSFORMER		
11MR	11 MISCELLANEOUS RELAY RACK		
11RM	RADIATION MONITORING RACK 11RM		
12 BATT	12 BATTERY		
12 BATT CHG	12 BATTERY CHARGER		
12 BATT CHG/XFM	12 BATTERY CHARGER TRANSFORMER		
12 INV	12 INVERTER		
120BT/PT	120BT POTENTIAL TRANSFORMER		
121M/XFMR	121M TRANSFORMER		
121MR	121 MISCELLANEOUS RELAY RACK		
121SR	121 SEISMIC RECORDER SYSTEM RACK		
122M/XFMR	122M TRANSFORMER		
122MR	122 MISCELLANEOUS RELAY RACK		
123MR	123 MISCELLANEOUS RELAY RACK		
124MR	124 MISCELLANEOUS RELAY RACK		
125MR	125 MISCELLANEOUS RELAY RACK		
126MR	126 MISCELLANEOUS RELAY RACK		
12MR	12 MISCELLANEOUS RELAY RACK		
13 INV	13 INVERTER		
132-141	121 RELAY ROOM RETURN FAN		
132-281	11 SCREENHOUSE ROOF EXHAUST FAN		
132-291	11 SCREENHOUSE DIESEL COOLING SUPPLY FAN		
135-021	11 RCP SEAL WATER RETURN HEAT EXCHANGER		
135-101	12 CL PUMP DIESEL JACKET CLG HX		
135-111	REGEN HT EX		
13MR	13 MISCELLANEOUS RELAY RACK		
14 INV	14 INVERTER		
145-041	11 CHG PUMP		
145-042	12 CHG PUMP		
145-071	11 SI PMP		
145-122	12 CC PMP		
145-201	11 TD AFW PUMP		
145-331	12 MD AFW PUMP		
145-392	12 DD CLP		
145-821	12 CL PUMP CNSTNT LUBE OIL PUMP		
146-011	12 CL PUMP DIESEL START-UP AIR RECEIVERS		
14MR	14 MISCELLANEOUS RELAY RACK		
15 INV	15 INVERTER		
15-2/CT1	D1 EMERG GEN CURRENT TRANSFORMER		
1-52/RTA	A - TRAIN REAC TRIP BREAKER		
1-52/RTB	B - TRAIN REAC TRIP BREAKER		
153-011	11 PRESSURIZER RELIEF TANK		
153-021	11 VOLUME CONTROL TANK		
153-081	RFLG WTR STG TK		
15-5/CT1	11 CC PUMP CURRENT TRANSFORMER		
15-5/CT2	11 CC PUMP CURRENT TRANSFORMER		
15-6/CT1	101 STA AUX XFMR CURRENT TRANSFORMER		

•

Table A-1: Prairie Island Unit 1 - Base List 1			
Equipment Tag	Description		
15-6/CT2	101 STA AUX XFMR CURRENT TRANSFORMER		
158-011	11 COOLING WATER STRAINER		
16-1/CT1	12 AFW PUMP CURRENT TRANSFORMER		
16-1/CT2	12 AFW PUMP CURRENT TRANSFORMER		
16-2/CT1	102 STA AUX XFMR CURRENT TRANSFORMER		
16-2/CT2	102 STA AUX XFMR AURRENT TRANSFORMER		
16-3/CT1	12 CC PUMP CURRENT TRANSFORMER		
16-3/CT2	12 CC PUMP CURRENT TRANSFORMER		
16-7/CT1	D2 EMERG GEN CURRENT TRANSFORMER		
169-031	11 SEAL WTR INJ		
169-032	12 SEAL WTR INJ		
169-061	11 SEAL WTR INJ		
169-062	12 SEAL WTR INJ		
17 INV	17 INVERTER		
174-011	11 CNTM FAN COIL UNIT		
174-012	12 CONTAINMENT FAN COIL UNIT		
174-013	13 CNTM FAN COIL UNIT		
174-014	14 CONTAINMENT FAN COIL UNIT		
174-031	15 SAFEGUARD SWITCHGEAR FAN-COIL UNIT (4160V)		
174-032	16 SAFEGUARD SWITCHGEAR FAN-COIL UNIT (4160V)		
174-051	12 AUXILIARY FEEDWATER PUMP MOTOR FAN COIL UNIT		
174-131	11 CHARGING PUMP MOTOR FAN-COIL UNIT		
174-132	12 CHARGING PUMP MOTOR FAN-COIL UNIT		
174-161	101 SAFEGUARD SWITCHGEAR FAN-COIL UNIT		
174-162	102 SAFEGUARD SWITCHGEAR FAN-COIL UNIT		
174-163	102A SAFEGUARD SWITCHGEAR FAN-COIL UNIT		
18 INV	18 INVERTER		
1AMR1	MISCELLANEOUS RELAY RACK 1AMR1		
1ARP1	REACTOR PROTECTION RELAY RACK 1ARP1		
1ARP2	REACTOR PROTECTION RELAY RACK 1ARP2		
1ARP3	REACTOR PROTECTION RELAY RACK 1ARP3		
1ARP4	REACTOR PROTECTION RELAY RACK 1ARP4		
1ARP5	REACTOR PROTECTION RELAY RACK 1ARP5		
1ASG1	SAFEGUARD RELAY RACK 1ASG1		
1ASG2	SAFEGUARD RELAY RACK 1ASG2		
1B1	PROCESS PROTECTION RACK 1B1		
1B2	PROCESS PROTECTION RACK 1B2		
1BMR1	MISCELLANEOUS RELAY RACK 1BMR1		
1BRP1	REACTOR PROTECTION RELAY RACK 1BRP1		
1BRP2	REACTOR PROTECTION RELAY RACK 1BRP2		
1BRP3	REACTOR PROTECTION RELAY RACK 1BRP3		
1BRP4	REACTOR PROTECTION RELAY RACK 1BRP4		
1BRP5	REACTOR PROTECTION RELAY RACK 1BRP5		
1BSG1	SAFEGUARD RELAY RACK 1BSG1		
1BSG2	SAFEGUARD RELAY RACK 1BSG2		
1CVCS1	PROCESS CONTROL RACK 1CVC1		
1CVCS2	PROCESS CONTROL RACK 1CVC2		
1DG-3	D1 JACKET CLNT HTR RELIEF		

Table A-1: Prairie Island Unit 1 - Base List 1					
Equipment Tag	Description				
1FE-115	11 REAC CLNT PMP SL WTR INJ F ORIF				
1FE-116	12 REAC CLNT PMP SL WTR INJ F ORIF				
1FE-820	11 AUX FEEDWATER VLV MS-20-4 OUTL FE				
1FI-115A	11 REAC CLNT PMP SL WTR INJ FI				
1FI-116A	12 REAC CLNT PMP SL WTR INJ FI				
1FT-115	11 REAC CLNT PMP SL WTR INJ F XMTR				
1FT-116	12 REAC CLNT PMP SL WTR INJ F XMTR				
1FT-176	12 RCP SEAL LEAKOFF HI ACC FLOW XMTR				
1FT-178	12 RCP SEAL LEAKOFF FLOW XMTR				
1FT-464	MN STM FR 11 STM GEN CHNNL I RED F XMTR				
1FT-465	MN STM FR 11 STM GEN CHNNL II WHITE F XMTR				
1FT-474	MN STM FR 12 STM GEN CHNNL III BLU F XMTR				
1FT-475	MN STM FR 12 STM GEN CHNNL IV YEL F XMTR				
1FT-476	12 STM GEN LOOP B FW INLT F XMTR				
1FT-494	11 STM GEN LOOP A HI ACC STM F XMTR				
1FW	PROCESS CONTROL RACK 1FW				
1HC-431K	1 REAC CLNT LOOP PRZR PRESS CONT STA				
1HC-468	1 MN STM SAF RLF TO ATM LOOP A CONT STA				
1HC-478	MN STM SAF RLF TO ATM LOOP B CONT STA				
1LC-141A	VOL CONTROL TANK LEVEL CONTROLLER				
1LC-141B	VOL CONTROL TANK LEVEL SINGLE ALARM				
1LQ-141	11 VOL CONT TNK LVL PWR SPLY				
1LQ-426	PRESSURIZER LEVEL XMTR PWR SPLY				
1LQ-428	PRESSURIZER LEVEL XMTR PWR SPLY				
1LQ-461	STM GEN LEVEL XMTR PWR SPLY				
1LQ-471	STM GEN LEVEL XMTR PWR SPLY				
1LR-428	1 REAC PRZR LVL RCDR				
1LT-112	11 VOL CONT TNK LVL XMTR				
1LT-141	11 VOL CONT TNK LVL XMTR				
1LT-426	1 REAC CLNT LOOP PRZR (CHNNL I-RED) LVL XMTR				
1LT-428	1 REAC CLNT LOOP PRZR (CHNNL III-BLU) LVL XMTR				
1LT-461	11 STM GEN LOOP A CHNNL I-RED LVL XMTR				
1LT-471	12 STM GEN LOOP B CHNNL IV YEL LVL XMTR				
1LT-487	11 STM GEN LOOP A WR LVL XMTR				
1LT-488	12 STM GEN LOOP B WR LVL XMTR				
1LT-751	11 RX VSL HEAD UPPER RNG TRN A D/P XMTR				
<u>1L</u> T-752	11 RX VSL HEAD FULL RNG TRN A D/P XMTR				
1LT-753	11 RX VSL HEAD DYNAMIC RNG TRN A D/P XMTR				
<u>1L</u> T-761	12 RX VSL HEAD UPPER RNG TRN B D/P XMTR				
1LT-762	12 RX VSL HEAD FULL RNG TRN B D/P XMTR				
<u>1LT-763</u>	12 RX VSL HEAD DYNAMIC RNG TRN B D/P XMTR				
11 RWST LVL XMTR					
1LT-921	11 RWST LVL XMTR				
1NE-51	EXCORE DETECTION TRN A DETECTOR ASSY				
1NE-52 EXCORE DETECTION TRN B DETECTOR ASSY					
1NI-51A EXCORE DETECTION TRN A SHUTDOWN MONITOR					
1NI-52A EXCORE DETECTION TRN B SHUTDOWN MONITOR					
1NM-51 EXCORE DETECTION TRN A AMPLIFIER					

. .

Table A-1: Prairie Island Unit 1 - Base List 1				
Equipment Tag	Description			
1NM-51A	EXCORE DETECTION TRN A OPTICAL ISOLATOR			
1NM-52	EXCORE DETECTION TRN B AMPLIFIER			
1NR1	NUCLEAR INSTRUMENTATION RACK 1NR1			
1NR2	NUCLEAR INSTRUMENTATION RACK 1NR2			
1NR3	NUCLEAR INSTRUMENTATION RACK 1NR3			
1NR4	NUCLEAR INSTRUMENTATION RACK 1NR4			
1NU-51A	EXCORE DETECTION TRN A RACK MTD SIGNAL PROCESSOR			
1NU-51B	EXCORE DETECTION TRN A WALL MTD SIGNAL PROCESSOR			
1NU-52A	EXCORE DETECTION TRN B RACK MTD SIGNAL PROCESSOR			
1PLP	PROCESS CONTROL RACK 1PLP			
1PQ-429	1 REAC CLNT LOOP PRZR (CHNNL I-RED) P PWR SPLY			
1PQ-431	1 REAC CLNT LOOP PRZR (CHNNL III-BLU) P PWR SPLY			
1PQ-468	STEAM PRESSURE TRANSMITTER PWR SPLY			
1PQ-478	STEAM PRESSURE TRANSMITTER PWR SPLY			
1PR-429	1 REAC CLNT LOOP PRZR PRESS RCDR			
1PR-468	11 STM GEN LOOP A STM PRESS RCDR (3 PEN)			
1PT-139	11 REAC CLNT VOL CONT TNK RLF P XMTR			
1PT-173	11 REAC CLNT PMP SHFT SL D/P XMTR			
1PT-174	12 REAC CLNT PMP NO 1 SL D/P XMTR			
1PT-429	1 REAC CLNT LOOP PRZR (CHNNL I-RED) P XMTR			
1PT-431	1 REAC CLNT LOOP PRZR (CHNNL III-BLU) P XMTR			
1PT-468	11 STM GEN LOOP A (CHNNL I-RED) P XMTR			
1PT-469	11 STM GEN LOOP A (CHNNL II-WHI) P XMTR			
<u>1PT-478</u>	12 STM GEN LOOP B (CHNNL III-BLU) P XMTR			
<u>1PT-479</u>	12 STM GEN LOOP B (CHNNL IV-YEL) P XMTR			
1PT-482	11 STM GEN LOOP A (CHNNL III-BLU) P XMTR			
1PT-483	12 STM GEN LOOP B (CHNNL I-RED) P XMTR			
1PT-709	LOOP A RCS PRESS XMTR			
1PT-710	LOOP B RCS PRESS XMTR			
1PZRHTRA/CT A	1 PRZR HTR GRP A CURRENT XFMR A			
1PZRHTRA/CT C	1 PRZR HTR GRP A CURRENT XFMR C			
1PZRHTRA/PT A	1 PRZR HTR GRP A POTENTIAL XFMR A			
1PZRHTRA/PT C	1 PRZR HTR GRP A POTENTIAL XFMR C			
1PZRHTRA/XFMR	1 PRZR HTR GRP A TRANSFORMER			
1PZRHTRB/CT A	<u>1 PRZR HTR GRP B CURRENT XFMR A</u>			
1PZRHTRB/CT C	1 PRZR HTR GRP B CURRENT XFMR C			
1PZRHTRB/PT A	1 PRZR HTR GRP B POTENTIAL XFMR A			
1PZRHTRB/PT C	1 PRZR HTR GRP B POTENTIAL XFMR C			
1PZRHTRB/XFMR	1 PRZR HTR GRP B TRANSFORMER			
1R1	PROCESS PROTECTION RACK 1R1			
1R2	PROCESS PROTECTION RACK 1R2			
1RCS1	PROCESS CONTROL RACK 1RCS1			
	PROCESS CONTROL HACK 1RCS2			
111-450A	H/E RCS LEMPERATURE TH			
111-450B				
111-451A				
111-451B				
1W1	PROCESS PROTECTION RACK 1W1			

Table A-1: Prairie Island Unit 1 - Base List 1				
Equipment Tag Description				
CD-34204	121 RLY RM/COMP RM FIRE PREV ISOL RTRN CD			
CL-25-1	12 DDCLP JACKET HX RELIEF			
CL-57-3	11 CONTM FAN COIL-RELIEF			
CL-57-4	12 CONTM FAN COIL-RELIEF			
CL-57-5	13 CONTM FAN COIL-RELIEF			
CL-57-6	14 CONTM FAN COIL-RELIEF			
CV-31059	11 AFWP MN STM THTL CV			
CV-31084	11 STM GEN MN STM SAF RLF TO ATM CV			
CV-31089	12 STM GEN MN STM SAF RLF TO ATM CV			
CV-31098	11 LOOP A MN STM HDR ISOL CV			
CV-31099	12 LOOP B MN STM HDR ISOL CV			
CV-31153	11 TD AUX FW PMP RCRC/LUBE OIL CLG CV			
CV-31154	12 MD AUX FW PMP RCRC/LUBE OIL CLG CV			
CV-31205	11 LTDN DVRSN VCT/HLD-UP TNKS CV			
CV-31226	1 REAC CLNT LOOP PRZR LTDN LN ISOL LCV A			
CV-31231	1 PRZR PORV B CV			
CV-31232	1 PRZR PORV A CV			
CV-31255	1 REAC CLNT LOOP PRZR LTDN LN ISOL LCV 2			
CV-31334	11/12 RCP SEAL BYPASS RETURN CV			
CV-31335	11 REAC CLNT PMP SL WTR OUTL ISOL CV			
CV-31336	12 REAC CLNT PMP SL WTR OUTL ISOL CV			
CV-31423	12 DDCLP JCKT CLR OUTL CV			
CV-31505	D1 DSL GEN CLG WTR SPLY CV			
CV-31506	D2 DSL GEN CLG WTR SPLY CV			
CV-31652	11 CLG WTR STRNR BCKWSH CV			
CV-31759	122 N RLY RM FAN COIL TRN B CV			
CV-31760	121 N RLY RM FAN COIL TRN A CV			
CV-31761	122 S RLY RM FAN COIL TRN B CV			
CV-31768	122 CONT RM A/C CHL WTR RTRN CV			
CV-31769	121 CONT RM CHLLR UNIT CDSR CLG WTR OUTL TCV			
CV-31785	122 CONT RM CHLLR UNIT CDSR CLG WTR OUTL TCV			
CV-31786	121 CONT RM A/C CHL WTR RTRN CV			
CV-31953	D1 DSL GEN AIR STRT CV A			
CV-31954	D1 DSL GEN AIR STRT CV B			
CV-31955	D2 DSL GEN AIR STRT CV A			
CV-31956	D2 DSL GEN AIR STRT CV B			
CV-31998	11 TD AFW PMP STM BLOCK CV			
CV-39201	11 & 13 FCU CLG WTR RTN B-P CV			
CV-39203	12 & 14 FCU CLG WTR RTN ORIF B-P CV			
CV-39401	11/13 FCU CLG WTR SUPPLY CV			
CV-39402	11/13 FCU CHILLED WTR SUPPLY CV			
CV-39403	12/14 FCU CLG WTR SUPPLY CV			
CV-39404	12/14 FCU CHILLED WTR SUPPLY CV			
CV-39405	11 SHROUD CLG COILS TR A CHILLED WTR SUPPLY CV			
CV-39406	12 SHROUD CLG COILS TR B CHILLED WTR SUPPLY CV			
CV-39407	11 SHROUD CLG COILS TR A CHILLED WTR RETURN CV			
CV-39408	2V-39408 12 SHROUD CLG COILS TR B CHILLED WTR RETURN CV			
CV-39409	12/14 FCU CLG WTR RETURN CV			

Table A-1: Prairie Island Unit 1 - Base List 1					
Equipment Tag Description					
CV-39410	12/14 FCU CHILLED WTR RETURN CV				
CV-39411	11/13 FCU CLG WTR RETURN CV				
CV-39412	11/13 FCU CHILLED WTR RETURN CV				
D-1	CONTROL PANEL D-1				
D1 CFRP/XFMR	D1 CLEAN FUEL RTRN PMP TRANSFORMER				
D1/GEN RLY PNL	D1 EMERG GEN RELAY PNL				
D1/GND XFMR	NEUTRAL GROUNDING TRANSFORMER				
D1-3	GENERATOR RELAY BOX D1-3				
E-1	CONTROL PANEL E-1				
EM-A1	EVENT MONITORING RACK EM-A1				
EM-A3	EVENT MONITORING RACK EM-A3				
EM-B1	EVENT MONITORING RACK EM-B1				
EM-B3	EVENT MONITORING RACK EM-B3				
F-1	CONTROL PANEL F-1				
G-1	CONTROL PANEL G-1				
MCC 1A1	MOTOR CONTROL CENTER 1A BUS 1				
MCC 1A2	MOTOR CONTROL CENTER 1A BUS 2				
MCC 1AA2	MOTOR CONTROL CENTER 1AA BUS 2				
MCC 1AB1	MOTOR CONTROL CENTER 1AB BUS 1				
MCC 1AB2	MOTOR CONTROL CENTER 1AB BUS 2				
MCC 1AC1	MOTOR CONTROL CENTER 1AC BUS 1				
MCC 1AC2	MOTOR CONTROL CENTER 1AC BUS 2				
MCC 1JA1	MOTOR CONTROL CENTER 1JA BUS 1				
MCC 1JA2	MOTOR CONTROL CENTER 1JA BUS 2				
MCC 1K1	MOTOR CONTROL CENTER 1K BUS 1				
MCC 1K2	MOTOR CONTROL CENTER 1K BUS 2				
MCC 1KA2	MOTOR CONTROL CENTER 1KA BUS 2				
MCC 1L1	MOTOR CONTROL CENTER 1L BUS 1				
MCC 1L2	MOTOR CONTROL CENTER 1L BUS 2				
MCC 1LA1	MOTOR CONTROL CENTER 1LA BUS 1				
MCC 1LA2	MOTOR CONTROL CENTER 1LA BUS 2				
MCC 1M1	MOTOR CONTROL CENTER 1M BUS 1				
MCC 1M2	MOTOR CONTROL CENTER 1M BUS 2				
MCC 1MA1	MOTOR CONTROL CENTER 1MA BUS 1				
MCC 1MA2	MOTOR CONTROL CENTER 1MA BUS 2				
MCC 1R1	MOTOR CONTROL CENTER 1R BUS 1				
MCC 1S1	MOTOR CONTROL CENTER 1S BUS 1				
MCC 1T1	MOTOR CONTROL CENTER 1T BUS 1				
MCC 1T2	MOTOR CONTROL CENTER 1T BUS 2				
MCC 1T2/XFR SW	MCC 1T2 XFR SW				
MCC 1TA1	MOTOR CONTROL CENTER 1TA BUS 1				
MCC 1TA2	MOTOR CONTROL CENTER 1TA BUS 2				
MCC 1X1	MOTOR CONTROL CENTER 1X BUS 1				
MCC 1X2	MOTOR CONTROL CENTER 1X BUS 2				
MTR 111C-21	11 COOLING WATER STRAINER				
MTR 111E-45	11/21 AFW PUMPS UNIT COOLER				
MTR 111F-31	11 INVERTER (INSTR BUS II-WHI)				
MTR 111F-32	13 INVERTER (INSTR BUS III-BLU)				

Table A-1: Prairie Island Unit 1 - Base List 1				
Equipment Tag Description				
MTR 111J-51	121-N(U2) & 121-S(U1) RELAY ROOM UNIT COOLERS			
MTR 112G-12	121 CONTROL ROOM CHILLED WATER PUMP			
MTR 121J-51	122-N(U2) & 122-S(U1) RELAY ROOM UNIT COOLERS			
MTR 122G-12	122 CONTROL ROOM CHILLED WATER PUMP			
MV-32016	11 S/G STEAM SUPPLY TO 11 TD AFW PUMP MV			
MV-32017	LOOP B MN STM TO 11 TD AFWP MV			
MV-32025	11 TD AFW PUMP SUCT CLG WTR SUPPLY MV			
MV-32027	12 MD AFW PUMP SUCT CLG WTR SUPPLY MV			
MV-32031	1 TURB BLDG CLG WTR HDR MV			
MV-32034	121 CLWP DSCH HDR MV A			
MV-32035	121 CLWP DSCH HDR MV B			
MV-32036	121 CLWP DSCH HDR MV C			
MV-32037	121 CLWP DSCH HDR MV D			
MV-32047	12 MSIV BYPASS MV			
MV-32061	11 VOL CONT TNK TO CHG PMPS ISOL MV			
MV-32077	SUMP B TO 11 RHR PMP TRN A (OUTSIDE) MV			
MV-32132	11 FC CLG WTR RTRN ISOL MV A			
MV-32133	11 FC CLG WTR RTRN ISOL MV B			
MV-32135	12 FC CLG WTR RTRN ISOL MV A			
MV-32136	12 FC CLG WTR RTRN ISOL MV B			
MV-32138	13 FC CLG WTR RTRN ISOL MV A			
MV-32139	13 FC CLG WTR RTRN ISOL MV B			
MV-32141	14 FC CLG WTR RTRN ISOL MV A			
MV-32142	14 FC CLG WTR RTRN ISOL MV B			
MV-32145	11 CC HX CLG WTR INLET MV			
MV-32146	12 CC HX CLG WTR INLET MV			
MV-32166	1 REAC EXCS LTDN LINE ISOL MV A			
MV-32199	1 REAC EXCS LTDN LINE ISOL MV B			
MV-32238	11 TD AUX FW TO 11 STM GEN MV			
MV-32239	11 TD AUX FW TO 12 STM GEN MV			
MV-32242	11/12 AUX FW TO 11 STM GEN ISOL MV			
MV-32243	11/12 AUX FW TO 12 STM GEN ISOL MV			
MV-32322	11 AUX BLDG CLG WTR RTRN HDR MV			
MV-32332	11 AUX BLDG CLG WTR RTRN HDR ISOL MV			
MV-32371	11/12 TURB OIL COOLERS CLG WTR BYPASS MV			
MV-32377	11 FC CLG WTR INLT ISOL MV			
MV-32378	13 FC CLG WTR INLT ISOL MV			
MV-32379	12 FC CLG WTR INLT ISOL MV			
MV-32380	14 FC CLG WTR INLT ISOL MV			
MV-32381	12 AFWP DSCH TO 11 STM GEN MV			
MV-32382	12 AFWP DSCH TO 12 STM GEN MV			
PNL 11	DISTRIBUTION PANEL 11			
PNL 111	INSTR BUS II PANEL (WHI) 111			
PNL 1111	AC DISTRIBUTION CAB (WHI) 1111			
PNL 1112	AC DISTRIBUTION CAB (RED) 1112			
PNL 1113	AC DISTRIBUTION CAB (BLUE) 1113			
PNL 1113-16	127 MISCELLANEOUS RELAY RACK			
PNL 1114	AC DISTRIBUTION CAB (YEL) 1114			

.

Table A-1: Prairie Island Unit 1 - Base List 1				
Equipment Tag Description				
1W2	PROCESS PROTECTION RACK 1W2			
1Y1	PROCESS PROTECTION RACK 1Y1			
1Y2	PROCESS PROTECTION RACK 1Y2			
AC11	BOP ANNUNCIATOR CABINET AC11			
AC12	BOP ANNUNCIATOR CABINET AC12			
AC13	BOP ANNUNCIATOR CABINET AC13			
AC14	BOP ANNUNCIATOR CABINET AC14			
AC15	BOP ANNUNCIATOR CABINET AC15			
AC16	BOP ANNUNCIATOR CABINET AC16			
B-1	CONTROL PANEL B-1			
B110/AUX CAB	BUS 110 480V AUX RLY CAB			
B120/AUX CAB	BUS 120 480V AUX RLY CAB			
B15 LOGIC-1	BUS 15 LOGIC CAB 1			
B15 LOGIC-2	BUS 15 LOGIC CAB 2			
B15/LOAD SEQ CAB	BUS 15 SAFEGUARDS LOAD SEQUENCER CABINET			
B15/SWGR	BUS 15 4.16KV SWITCHGEAR			
B16 AUX RELAY CAB	BUS 16 AUX RELAY CABINET			
B16 LOGIC-1	BUS 16 LOGIC CAB 1			
B16 LOGIC-2	BUS 16 LOGIC CAB 2			
B16/LOAD SEQ CAB	BUS 16 SAFEGUARDS LOAD SEQUENCER CABINET			
B16/SWGR	BUS 16 4.16KV SWITCHGEAR			
BUS 111	BUS 111 480V SWITCHGEAR			
BUS 112	BUS 112 480V SWITCHGEAR			
BUS 121	BUS 121 480V SWITCHGEAR			
BUS 122	BUS 122 480V SWITCHGEAR			
BUS 13	BUS 13 4.16KV SWITCHGEAR			
BUS 14	BUS 14 4.16KV SWITCHGEAR			
BUS 15	4.16KV SFGDS BUS 15			
BUS 16	4.16KV SFGDS BUS 16			
C-1	CONTROL PANEL C-1			
CD-34049	121/122 DSL GEN RM OUTS AIR CD			
CD-34072	11 FCU DISCH TO CNTMT DOME CD			
CD-34073	11 FCU NORM DISCH TO GAP & STRUCT CD			
CD-34074	12 FCU DISCH TO CNTMT DOME CD			
CD-34075	12 FCU NORM DISCH TO GAP & STRUCT CD			
CD-34076	13 FCU DISCH TO CNTMT DOME CD			
CD-34077	13 FCU NORM DISCH TO GAP & STRUCT CD			
CD-34078	14 FCU DISCH TO CNTMT DOME CD			
CD-34079	14 FCU NORM DISCH TO GAP & STRUCT CD			
CD-34136	11 SCVNG & COMBTN AIR CD			
CD-34137	11 CLASS I ROOF EXHT FAN DSCH CD			
CD-34142	121 CONT RM AIR HNDLR OA SPLY CD			
CD-34143	121 CONT RM AIR HNDLR DSCH CD			
CD-34144	122 CONT RM AIR HNDLR DSCH CD			
CD-34145	122 CONT RM AIR HNDLR OA SPLY CD			
CD-34179	121 CONT RM PAC FLTR SPLY CD			
CD-34181	122 CONT RM PAC FLTR SPLY CD			
CD-34203 121 RLY RM/COMP RM FIRE PREV ISOL SPLY CD				

Table A-1: Prairie Island Unit 1 - Base List 1						
Equipment Tag	Description					
PNL 1114-14	128 MISCELLANEOUS RELAY RACK					
PNL 112	INSTR BUS I PANEL (RED) 112					
PNL 113	INSTR BUS III PANEL (BLUE) 113					
PNL 114	INSTR BUS IV PANEL (YEL) 114					
 PNL 115	ROD POSITION DISC SW PNL 115					
PNL 116	NON-INTERRUPTABLE PANEL 116					
PNL 117	INTERRUPTABLE PANEL 117					
PNL 12	DISTRIBUTION PANEL 12					
PNL 131	DC DISTRIBUTION PANEL 131					
PNL 132	AC DISTRIBUTION PANEL 132					
PNL 132-7	11/21 AFW PUMPS UNIT COOLER					
 PNL 133	AC DISTRIBUTION PANEL 133					
PNL 133/XFMR	DIST PNL 133 XFMR					
PNL 134	AC DISTRIBUTION PANEL 134					
PNL 135	AC DISTRIBUTION PANEL 135					
PNL 136	AC DISTRIBUTION PANEL 136					
PNI 136/XEMB	DIST PNI 136 XEMB					
PNL 137	AC DISTRIBUTION PANEL 137					
PNL 15	NUCLEAR DISTRIBUTION PANEL 15					
PNL 151	DISTRIBUTION PANEL 151					
PNL 152	DISTRIBUTION PANEL 152					
PNL 153						
PNI_16	NUCLEAR DISTRIBUTION PANEL 16					
PNL 161	DC DISTRIBUTION PANEL 161					
PNL 162	DC DISTRIBUTION PANEL 162					
PNL 163	DC DISTRIBUTION PANEL 163					
PNL 17	DC DISTRIBUTION PANEL 17					
PNL 18	DC DISTRIBUTION PANEL 18					
PNL 191	DC DISTRIBUTION PANEL 191					
PNL 1EM	DISTRIBUTION PANEL 1EM					
PNL 1EMA	DISTRIBUTION PANEL 1EMA					
PNL 1EMA-11	ICCM UNIT 1 TRAIN A MICROPROCESSOR 1LM-750					
PNL 1EMA-5	EXCORE DET AMPLIFIER 1NM-51					
PNL 1EMA-8	TB A1688 ICCM UNIT 1 TRAIN A PLASMA DISPLAY					
PNL 1EMB	DISTRIBUTION PANEL 1EMB					
PNL 1EMB-11	ICCM UNIT 1 TRAIN B MICROPROCESSOR 1LM-760					
PNL 1EMB-3	EXCORE DET AMPLIFIER 1NM-52					
PNL 1EMB-8	TB 2889 ICCM UNIT 1 TRAIN B PLASMA DISPLAY					
RC-10-1	PRESSURIZER RELIEF VALVE					
RC-10-2	PRESSURIZER RELIEF VALVE					
RS-21-1	SAFETY VALVE HEADER STM GENERATOR 11					
RS-21-10	SAFETY VALVE HEADER STM GENERATOR 12					
	SAFETY VALVE HEADER STM GENERATOR 11					
	SAFETY VALVE HEADER STM GENERATOR 11					
RS-21-4	SAFETY VALVE HEADER STM GENERATOR 11					
	SAFETY VALVE HEADER STM GENERATOR 11					
RS-21-6 SAFETY VALVE HEADER STM GENERATOR						
RS-21-7 SAFETY VALVE HEADER STM GENERATOR 12						

Table A-1: Prairie Island Unit 1 - Base List 1				
Equipment Tag Description				
RS-21-8	SAFETY VALVE HEADER STM GENERATOR 12			
RS-21-9	SAFETY VALVE HEADER STM GENERATOR 12			
SA-54-3	D1 DSL GEN MAIN AIR RCVR RELIEF			
SA-54-6	D2 DSL GEN MAIN AIR RCVR RELIEF			
SA-56-1	12 CLG WTR PUMP - DIESEL STARTING AIR			
SV-33133	CLG WTR TO 121 SFGRDS TRVLG SCRNS SV			
SV-33134	CLG WTR TO 122 SFGRDS TRVLG SCRNS SV			
SV-33186	D1 DSL GEN WTR SPLY SV			
SV-33187	D2 DSL GEN WTR SPLY SV			
SV-33188	D1 DSL GEN CLNT EXPN TNK FILL SV			
SV-33189	D2 DSL GEN CLNT EXPN TNK FILL SV			
SV-33199	11 LOOP A MN STM HDR AIR SPLY SV A			
SV-33200	11 LOOP A MN STM HDR AIR SPLY SV B			
SV-33201	11 LOOP A MN STM HDR AIR EXHT SV A			
SV-33202	11 LOOP A MN STM HDR AIR EXHT SV B			
SV-33204	12 LOOP B MN STM HDR AIR SPLY SV A			
SV-33234	11 REAC CLNT VOL CONT TNK LVL CONT VENT SV			
SV-33235	11 REAC CLNT VOL CONT TNK LVL CONT MAN/AUTO SV			
SV-33242	D1 DSL GEN AIR STRT VENT SV			
SV-33245	D2 DSL GEN AIR STRT VENT SV			
SV-33254	12 LOOP B MN STM HDR AIR SPLY SV B			
SV-33255	12 LOOP B MN STM HDR AIR EXHT SV A			
SV-33256	12 LOOP B MN STM HDR AIR EXHT SV B			
SV-33285	11 TD AUX FW PMP RCRC/LUBE OIL CLG SV			
SV-33286	12 MD AUX FW PMP RCRC/LUBE OIL CLG SV			
SV-33299	11 TD AFW PMP STM BLOCK SV			
SV-33323	1 REAC CLNT LOOP PRZR LTDN LN ISOL SV 2			
SV-33343	11 CLG WTR STRNR BCKWSH SV			
SV-33371	11 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV			
SV-33372	11 FAN COIL UNIT NORM DSCH TO GAP & STRUC DMPR S			
SV-33373	12 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV			
SV-33374	12 FAN COIL UNIT NORM DSCH TO GAP & STRUC DMPR S			
SV-33375	13 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV			
SV-33376	13 FAN COIL UNIT NORM DSCH TO GAP & STRUC DMPR S			
SV-33377	14 FAN COIL UNIT DSCH TO CONTM DOME DMPR SV			
SV-33378	14 FAN COIL UNIT DSCH TO GAP & STRUC DMPR SV			
SV-33464	12 DD CLG WTR PMP AIR MTR RS SV A			
SV-33465	12 DD CLWP AIR MTR LS SV B			
SV-33512	1 REAC CLNT LOOP PRZR LTDN LN ISOL SV 1			
SV-33578	12 AUX FW PMP MTR UNIT CLR SV			
SV-33644	D1 DSL GEN AIR STRT SV A			
SV-33645	D1 DSL GEN AIR STRT SV B			
SV-33646	D2 DSL GEN AIR STRT SV A			
SV-33669	11 REAC CLNT PMP SL WTR OUTL ISOL SV			
SV-33670	12 REAC CLNT PMP SL WTR OUTL ISOL SV			
SV-33693	11 SCVNG & COMBTN AIR DMPR SV A			
SV-33694	11 CLASS I ROOF EXHT FAN DMPR SV			
SV-33702	121 CONT RM AIR HNDLR OA SPLY DMPR SV			

Table A-1: Prairie Island Unit 1 - Base List 1					
Equipment Tag Description					
SV-33703	121 CONT RM AIR HNDLR DSCH DMPR SV A				
SV-33704	122 CONT RM AIR HNDLR DSCH DMPR SV A				
SV-33705	122 CONT RM AIR HNDLR OA SPLY DMPR SV				
SV-33709	121 CONT RM PAC FLTR SPLY DMPR SV				
SV-33711	122 CONT RM PAC FLTR SPLY SV				
SV-33716	122 CONT RM CHLLR CLG WTR SV				
SV-33717	121 CONT RM CHLLR CLG WTR SV				
SV-33774	D2 DSL GEN AIR STRT SV B				
SV-33776	12 DD CLWP DSL JCKT CLR OUTL SV				
SV-33820	121 CONT RM AIR HNDLR DSCH DMPR SV B				
SV-33821	122 CONT RM AIR HNDLR DSCH DMPR SV B				
SV-33828	11 SCVNG & COMBUSTION AIR DMPR SV B				
SV-33987	D1 & D2 DSL GEN OUTSIDE AIR CD-34049 TRN A S				
SV-37022	121 CONT RM HNDLR OA SPLY STM EXCL B SV				
SV-37025	122 CONT RM HNDLR OA SPLY STM EXCL A SV				
SV-37035	RCS VENT SYS PRZR VENT SV				
SV-37036	RCS VENT SYS PRZR VENT SV				
SV-37037	RCS VENT SYS REACTOR HEAD VENT SV				
SV-37038	RCS VENT SYS REACTOR HEAD VENT SV				
SV-37039	RCS VENT SYS TO PRT SV				
SV-37040	RCS VENT SYS TO CNTMT ATMOS SV				
SV-37091	RCS VENT SYS PRZR VENT SV				
SV-37092	RCS VENT SYS PRZR VENT SV				
SV-37093	RCS VENT SYS REACTOR HEAD VENT SV				
SV-37201	11 & 13 FCU CLG WTR RTN ORIF B-P SV				
SV-37203	12 & 14 FCU CLG WTR RTN ORIF B-P SV				
SV-37401	11; 13 FCU CLG WTR SUPPLY SV				
SV-37402	11; 13 FCU CHILLED WTR SUPPLY SV				
SV-37403	12; 14 FCU CLG WTR SUPPLY SV				
SV-37404	12; 14 FCU CHILLED WTR SUPPLY SV				
SV-37405	11 SHROUD CLG COILS TR A CHILLED WTR SUPPLY SV				
SV-37406	12 SHROUD CLG COILS TR B CHILLED WTR SUPPLY SV				
SV-37409	12; 14 FCU CLG WTR RETURN SV				
SV-37411	11; 13 FCU CLG WTR RETURN SV				
SV-37460	UNIT 1 TRAIN A CHILL WTR/CLG WTR ISOL SV				
SV-37461	UNIT 1 TRAIN B CHILL WTR/CLG WTR ISOL SV				
SV-37462	UNIT 1 TRAIN A CHILL WTR/CLG WTR ISOL SV				
SV-37463	UNIT 1 TRAIN B CHILL WTR/CLG WTR ISOL SV				
TB 1203	RELAY ROOM AUX RELAY CABINET				
TB 1209	RELAY ROOM TERMINAL BOX				
TB 1243	TB FOR 12 CHARGING PUMP				
TB 1244	TB FOR 11 CHARGING PUMP				
TB A1640	11 TD AUX FEEDWATER PUMP RELAY CABINET				
VC-1-1	CHARGING PUMP SUCTION FROM RWST				
VC-24-1	VOLUME CONTROL TANK RELIEF VALVE				
VC-25-1	RC PUMPS DISCH LINE TO SEAL WTR FILTER - RELIEF				
VC-26-1	1 REGEN HX LETDOWN LINE OUTLET RELIEF TO PRT				
VC-28-1	11 CHG PMP DISCH RELIEF				

Table A-1: Prairie Island Unit 1 - Base List 1				
Equipment Tag	Description			
VC-28-2	12 CHG PMP DISCH RELIEF			
ZH-16-1	121 CHILLER OUTLET - RLF			
ZH-16-2	122 CHILLER OUTLET - RLF			

#### A.2 Equipment Selection - Base List 2

Table A-2 is a list of the equipment resulting from Screen #3 and entering Screen #4 for the SFP. The screens utilized for selecting equipment for the SWEL is described in Sections 4 of this report. This list of initial equipment is called "Base List 2," per the guidance in Reference 1.

Table A-2: Prairie Island – Base List 2				
Equipment Tag	Description			
035-011	121 SFP HX			
035-012	122 SFP HX			
045-101	121 SFP PMP			
045-102	122 SFP PMP			

#### A.3 Final SWEL 1

This section provides a list of the final equipment selected for PINGP's SWEL 1 in Table A-3 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.

Table A-3: Prairie Island Unit 1 – SWEL 1							
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments
22024	121 MD CLG WTR PMP AREA T XMTR B	18	1, 2, 3, 4, 5	ZR	·		
032-041	121 D1 DSL GEN SPLY FAN	9	1, 2, 3, 4, 5	D1	Yes		
032-292	122 CONT RM CLEAN-UP FAN	9	1, 2, 3, 4, 5	ZN			
046-031A	D1 DSL GEN START-UP AIR RCVR A	21	1, 2, 3, 4, 5	D1	Yes		
053-321	12 DD CLG WTR PMP DSL OIL DAY TNK	21	1, 2, 3, 4, 5	CL	Yes		
053-382	122 CONT RM CHLD WTR EXPN TNK	21	1, 2, 3, 4, 5	ZH	Yes		<u></u>
069-242	122 CONT RM PAC FLTR	0	1, 2, 3, 4, 5	ZN			
076-022	122 CONT RM AIR HNDLR	10	1, 2, 3, 4, 5	ZN	Yes		
125MR	125 MISC RELAY RACK	20	1, 2, 3, 4, 5	MP			· · · · · · · · · · · · · · · · · · ·
MV-32034	121 CLWP DSCH HDR MV A	8	1, 2, 3, 4, 5	CL	- <u> </u>		<u> </u>
SA-54-3	D1 DSL GEN MAIN AIR RCVR RELIEF	7	1, 2, 3, 4, 5	SA	· · · · · · · · · · · · · · · · · · ·		······································
SV-33694	11 SFGDS SCRNHSE ROOF EXHT FAN CD-34137 SV	8	1, 2, 3, 4, 5	ZR			New or replaced
SV-37025	122 CONT RM AIR HNDLR OA SPLY CD-34145 SV	8	1, 2, 3, 4, 5	ZN			
22017	D1 DSL GEN RM TEMP XMTR	18	1, 2, 3, 4, 5	ZG	- <u></u>		

Table A-3: Prairie Island Unit 1 – SWEL 1									
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments		
55000	D1 DSL GEN GAUGE PANEL (DGP)	20	1, 2, 3, 4, 5	D1			IPEEE Enhanced		
55400	D1 DSL GEN AUX CONT PNL	14	1, 2, 3, 4, 5	D1	Yes				
57304	122 CONT RM CHLR LCL CONT PNL	20	1, 2, 3, 4, 5	ZH					
70300	12 DD CLWP LCL PNL	20	1, 2, 3, 4, 5	CL	Yes		IPEEE Enhanced		
032-011	121 D1 DSL GEN EXHT FAN	9	1, 2, 3, 4, 5	ZG	Yes				
034-011	D1 DSL GEN	17	1, 2, 3, 4, 5	D1	Yes				
045-592	122 CONT RM CHLD WTR PMP	5	1, 2, 3, 4, 5	ZH	Yes				
053-201	D1 DSL GEN FUEL OIL DAY TANK	21	1, 2, 3, 4, 5	D1	Yes				
053-481	D1 DSL GEN EXPANSION TANK	21	1, 2, 3, 4, 5	D1	<u> </u>				
075-012	122 CONT RM CHLR	11	1, 2, 3, 4, 5	ZH		Yes	IPEEE Enhanced		
11 BATT	11 BATTERY (& BATTERY RACK)	15	1, 2, 3, 4, 5	DC	Yes		IPEEE Enhanced		
11 BATT CHG	11 BATTERY CHARGER	16	1, 2, 3, 4, 5	DC	Yes	Yes	New or replaced, IPEEE Enhanced		
111M/XFMR	111M TRANSFORMER	4	1, 2, 3, 4, 5	EB			Risk significant		
112M/XFMR	112M TRANSFORMER	4	1, 2, 3, 4, 5	EB					

Table A-3: Prairie Island Unit 1 – SWEL 1									
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments		
117-111	11 TD AFW PMP L-O CLR	21	4	AF	Yes				
12 BATT	12 BATTERY (& BATTERY RACK)	15	1, 2, 3, 4, 5	DC	Yes		IPEEE Enhanced		
12 BATT CHG	12 BATTERY CHARGER	16	1, 2, 3, 4, 5	DC	Yes		New or replaced, IPEEE Enhanced		
122M/XFMR	122M TRANSFORMER	4	1, 2, 3, 4, 5	EB	<u></u>				
132-281	11 SFGDS SCRNHSE ROOF EXHT FAN	9	1, 2, 3, 4, 5	ZR	Yes	Yes	IPEEE Enhanced		
135-101	12 CLG WTR PMP DSL JCKT CLG HX	21	1, 2, 3, 4, 5	CL	Yes		IPEEE Enhanced		
145-042	12 CHG PMP	5	1, 2, 3	VC	Yes				
145-071	11 SI PMP	5	3	SI	Yes				
145-122	12 CC PMP	5	2, 3	СС	Yes		Risk significant		
145-201	11 TD AFW PMP	5	4	AF	Yes				
145-392	12 DD CLG WTR PMP	6	1, 2, 3, 4, 5	CL	Yes		IPEEE Enhanced		
158-011	11 CLG WTR STRNR	0	1, 2, 3, 4, 5	CL	Yes				
174-013	13 CNTMT FCU	10	5	ZC	Yes	Yes	IPEEE Enhanced		
174-031	15 SWGR RM UNIT CLR	10	1, 2, 3, 4, 5	ZH	Yes		La		

Table A-3: Prairie Island Unit 1 – SWEL 1									
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments		
174-162	TRN A EVENT MON RM WEST UNIT CLR	10	1, 2, 3, 4, 5	ZH					
1ASG1	SAFEGUARD RELAY RACK 1ASG1	20	1, 2, 3, 4, 5	RP					
1FT-464	MN STM FR 11 STM GEN CHNNL I RED F XMTR	18	4	RP		Yes			
1LT-428	1 PRZR (CHNL III-BLU) LVL XMTR	18	3	RP		Yes			
1LT-461	11 STM GEN LOOP A CHNNL I RED LVL XMTR	18	4	RP		Yes			
1LT-762	U1 RVLIS HEAD FULL RANGE TRN B D/P XMTR	18	3	EM					
1LT-763	12 RX VSL HEAD DYNAMIC RNG TRN B D/P XMTR	18	3	EM					
1LT-920	11 RWST LVL XMTR	18	1, 2, 3	EM					
1LT-921	11 RWST LVL XMTR	18	1, 2, 3	EM	Yes				
1NR3	NIS RACK III (BLU) 1NR3	20	1	NI			IPEEE Enhanced		
1PT-469	11 STM GEN LOOP A (CHNNL II-WHI) P XMTR	18	4	RP	Yes				
1PT-479	12 STM GEN LOOP B (CHNL IV-YEL) P XMTR	18	4	RP	Yes				
B-1	CONTROL PANEL B-1	20	1, 3, 4, 5	BM			IPEEE Enhanced		
B15 LOGIC-2	BUS 15 LOGIC RELAY CAB 2	20	1, 2, 3, 4, 5	EA	Yes				
BUS 122	BUS 122 480V SWITCHGEAR	2	1, 2, 3, 4, 5	EB		Yes			

Table A-3: Prairie Island Unit 1 – SWEL 1									
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments		
BUS 16	BUS 16 4.16KV SWITCHGEAR	3	1, 2, 3, 4, 5	EA		Yes			
CV-31059	11 TD AFW PMP TRIP THROTTLE CV	7	4	AF					
CV-31153	11 TD AFW PMP RECIRC/L-O CLG CV	7	4	AF					
CV-31423	12 DD CLG WTR JCKT CLR OUTL CV	7	1, 2, 3, 4, 5	CL					
CV-31505	D1 DSL GEN CLG WTR SPLY CV	7	1, 2, 3, 4, 5	CL			·····		
CV-31652	11 CLG WTR STRNR BCKWSH CV	7	1, 2, 3, 4, 5	CL					
CV-31953	D1 DSL GEN AIR START CV A	7	1, 2, 3, 4, 5	D1					
CV-39401	11/13 FCU CLG WTR SPLY CV	7	5	ZX			IPEEE Enhanced		
CV-39405	11 CRDM SHRD CLG COIL SPLY CV	7	5	ZX		Yes			
D-1	CONTROL PANEL D-1	20	4	ВМ	Yes		IPEEE Enhanced		
D1/GEN RLY PNL	D1 DSL GEN RELAY PNL	20	1, 2, 3, 4, 5	D1	Yes				
E-1	CONTROL PANEL E-1	20	1, 2, 3, 4, 5	ВМ	Yes		IPEEE Enhanced		
EM-B1	U1 EVENT MON RACK EM-B1	20	4, 5	EM	Yes				
MCC 1A1	MOTOR CONTROL CENTER 1A BUS 1	1	1, 2, 3, 4, 5	EB		Yes			

## Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

Table A-3: Prairie Island Unit 1 – SWEL 1								
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments	
MCC 1AB2	MOTOR CONTROL CENTER 1AB BUS 2	1	1, 2, 3, 4, 5	EB	Yes	Yes	IPEEE Enhanced	
MCC 1K2	MOTOR CONTROL CENTER 1K BUS 2	1	1, 2, 3, 4, 5	EB	Yes	Yes		
MCC 1L2	MOTOR CONTROL CENTER 1L BUS 2	1	1, 3, 5	EB	Yes	Yes	IPEEE Enhanced	
MCC 1T2	MOTOR CONTROL CENTER 1T BUS 2	1	1, 2, 3, 4, 5	EB	Yes	Yes		
MCC 1T2/XFR SW	MCC 1T2 XFR SW	4	1, 2, 3, 4, 5	EB			New or replaced	
MTR 111F-31	11 INVERTER (INSTR BUS II-WHI)	16	1, 2, 3, 4, 5	IP	, ,	Yes	<u> </u>	
MTR 111F-32	13 INVERTER (INSTR BUS III-BLU)	16	1, 2, 3, 4, 5	IP		Yes		
MV-32017	12 SG MS SPLY TO 11 TD AFW PMP MV	8	4	MS				
MV-32025	11 TD AFW PMP SUCT CL SPLY MV	8	4	CL				
MV-32077	SUMP B TO 11 RHR PMP TRN A (OUTSIDE) MV	8	3, 4	SI				
MV-32133	11 FCU CLG WTR OUTL ISOL MV B	8	5	CL				
MV-32141	14 FCU CLG WTR OUTL ISOL MV A	8	5	CL		Yes		
MV-32145	11 CC HX CLG WTR INLT MV	8	3	CL				
MV-32238	11 AFW TO 11 SG MV	8	4	AF				

## Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

Table A-3: Prairie Island Unit 1 – SWEL 1									
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments		
MV-32242	11/12 AFW TO 11 SG ISOL MV	8	4	AF					
MV-32380	14 FCU CLG WTR INLT ISOL MV	8	5	CL			New or replaced		
MV-32381	12 MD AFW PMP DISCH TO 11 SG MV	8	4	AF	<u> </u>				
PNL 11	DISTRIBUTION PANEL 11	14	1, 2, 3, 4, 5	DC	Yes	Yes	IPEEE Enhanced		
PNL 111	INSTR BUS II (WHI) PNL 111	14	1, 2, 3, 4, 5	IP		Yes			
PNL 113	INSTR BUS III (BLUE) PNL 113	14	1, 2, 3, 4, 5	IP		Yes			
PNL 12	DISTRIBUTION PANEL 12	14	1, 2, 3, 4, 5	DC		Yes	IPEEE Enhanced		
PNL 133	AC DISTRIBUTION PANEL 133	14	1, 2, 3, 4, 5	EX	Yes	Yes			
PNL 133/XFMR	DIST PNL 133 XFMR	4	1, 2, 3, 4, 5	EX					
PNL 136	AC DISTRIBUTION PANEL 136	14	1, 2, 3, 4, 5	EX	Yes	Yes			
PNL 136/XFMR	DIST PNL 136 XFMR	4	1, 2, 3, 4, 5	EX					
PNL 153	DISTRIBUTION PANEL 153	14	3, 5	DC	Yes	Yes			
PNL 191	DC DISTRIBUTION PANEL 191	14	3, 4, 5	DC	Yes				
PNL 1EM	DIST PNL 1EM	14	1, 2, 3, 4, 5	EM		Yes			
RS-21-1	11 SG MS HDR RELIEF	7	4	MS					
Table A-3: Prairie Island Unit 1 – SWEL 1									
---	--	--------------------	---------------------------------	---------------------	----------------------	-----------	----------		
Equipment Tag	Description	Class <sup>1</sup>	Safety Function <sup>2</sup>	System <sup>3</sup>	Verify Anchorage?	Deferred?	Comments		
SV-33186	D1 DSL GEN WTR SPLY SV	8	1, 2, 3, 4, 5	CL					
SV-33242	D1 DSL GEN AIR START VENT SV	8	1, 2, 3, 4, 5	D1	·····				
SV-33343	11 CLG WTR STRNR BCKWSH SV	8	1, 2, 3, 4, 5	CL			<u></u>		
SV-33371	11 FCU DISCH TO CNTMT DOME CD-34072 SV	8	5	ZC		Yes			
SV-37460	U1 TRN A CHLD WTR/CLG WTR ISOL SV	8	1, 2, 3, 4, 5	ZX		Yes			
SV-37462	U1 TRN A CHLD WTR/CLG WTR ISOL SV	8	1, 2, 3, 4, 5	ZX					
VC-28-2	12 CHG PMP DISCH RELIEF	7	1, 2, 3	VC					

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.

Code	System	Code	System
AF	AUXILIARY FEEDWATER	IP	INSTRUMENT POWER SOURCES
AT	AUX START-UP/STDBY XFMRS	MP	MISC PLANT INSTRUMENTS
ВМ	SITE MISCELLANEOUS MAINTENANCE	MS	MAIN STEAM
сс	COMPONENT COOLING	NI	NUCLEAR INSTRUMENTATION
CL	COOLING WATER	PI	ROD POSITION INDICATION
D1	D1 EMERGENCY DIESEL	RC	REACTOR COOLANT
D2	D2 EMERGENCY DIESEL	RP	REACTOR PROTECTION
D5	D5 EMERGENCY DIESEL	SA	STATION & INSTRUMENT AIR
D6	D6 EMERGENCY DIESEL	SE	STEAM EXCLUSION
DC	DC AUXILIARIES	SF	SPENT FUEL POOL COOLING
EA	4.16KV ELECTRICAL	SI	SAFETY INJECTION
EB	480V ELECTRICAL	VC	CHEMICAL & VOLUME CONTROL
EH	ELECTRO-HYDRAULIC SYSTEM	ZC	CONTAINMENT VENT
EL	SITE LIGHTING	ZG	DIESEL ROOMS VENT
EM	EVENT MONITORING	ZH	SAFEGUARDS CHILLED WATER
EX	240/120V MISC AUXILIARIES	ZR	SCREENHOUSE VENT
FO	FUEL OIL	ZX	CNTMT & AUX BLDG COOLING
FW	FEEDWATER	ZN	CONT/RELAY/CMPTR RM VENT

### A.4 Final SWEL 2

This section provides a list of the final equipment selected for PINGP's SWEL 2 for the SFP. Table A-4 lists the components selected for the SWEL 2 walkdowns.

1	Table A-4: Prairie Island – SWEL 2				
Equipment Tag	Description	· · · · · · · · · · · · · · · · · · ·			
035-012	122 SFP HX				
045-102	122 SFP PMP				

A-27

# **B** Seismic Walkdown Checklists (SWCs)

This appendix provides the Seismic Walkdown Checklists (SWC) completed as of November 9, 2012 for PINGP. Table B-1 provides a description of each item, anchorage configuration verification, and the checklist status for each SWC. The seismic walkdown checklists are provided after this table, and are in the same chronological order as listed in the table.

Table B-1: Prairie Island Unit 1 Completed SWCs				
Equipment Tag	Equipment Description	Anchorage Confirmed?	Comments	Checklist Status (Y/N)
22017	D1 DSL GEN RM TEMP XMTR	No		Y
22024	121 MD CLG WTR PMP AREA T XMTR B	No	Common	Y
55000	D1 DSL GEN GAUGE PANEL (DGP)	No		Y
55400	D1 DSL GEN AUX CONT PNL	Yes		Y
57304	122 CONT RM CHLR LCL CONT PNL	No		N
70300	12 DD CLWP LCL PNL	Yes		Y
032-011	121 D1 DSL GEN EXHT FAN	Yes		Y
032-041	121 D1 DSL GEN SPLY FAN	Yes	Common	Y
032-292	122 CONT RM CLEAN-UP FAN	No	Common	Y
034-011	D1 DSL GEN	Yes		Y
045-592	122 CONT RM CHLD WTR PMP	Yes		Y
046-031A	D1 DSL GEN START-UP AIR RCVR A	Yes		Y
053-201	D1 DSL GEN FUEL OIL DAY TANK	Yes		Y

Table B-1: Prairie Island Unit 1 Completed SWCs				
Equipment Tag	Equipment Description	Anchorage Confirmed?	Comments	Checklist Status (Y/N)
053-321	12 DD CLG WTR PMP DSL OIL DAY TNK	Yes	Common	N
053-382	122 CONT RM CHLD WTR EXPN TNK	Yes	Common	Y
069-242	122 CONT RM PAC FLTR	No	Common	Y
076-022	122 CONT RM AIR HNDLR	Yes	Common	Y
11 BATT	11 BATTERY (& BATTERY RACK)	Yes		Y
111M/XFMR	111M TRANSFORMER	No		Y
112M/XFMR	112M TRANSFORMER	No		Y
117-111	11 TD AFW PMP L-O CLR	Yes		Y
12 BATT	12 BATTERY (& BATTERY RACK)	Yes		Y
12 BATT CHG	12 BATTERY CHARGER	Yes		Y
122M/XFMR	122M TRANSFORMER	No		Y
125MR	125 MISC RELAY RACK	No	Common	Y
135-101	12 CLG WTR PMP DSL JCKT CLG HX	Yes		Y
145-042	12 CHG PMP	Yes		Y
145-071	11 SI PMP	Yes		Y
145-122	12 CC PMP	Yes		Y
145-201	11 TD AFW PMP	Yes		Y
145-392	12 DD CLG WTR PMP	Yes		Y
158-011	11 CLG WTR STRNR	Yes		Y

Table B-1: Prairie Island Unit 1 Completed SWCs				
Equipment Tag	Equipment Description	Anchorage Confirmed?	Comments	Checklist Status (Y/N)
174-031	15 SWGR RM UNIT CLR	Yes		N
174-162	TRN A EVENT MON RM WEST UNIT CLR	No		Y
1ASG1	SAFEGUARD RELAY RACK 1ASG1	No		Y
1LT-762	U1 RVLIS HEAD FULL RANGE TRN B D/P XMTR	No		Y
1LT-763	12 RX VSL HEAD DYNAMIC RNG TRN B D/P XMTR	No		Y
1LT-920	11 RWST LVL XMTR	No		Y
1LT-921	11 RWST LVL XMTR	Yes		Y
1NR3	NIS RACK III (BLU) 1NR3	No		Y
1PT-469	11 STM GEN LOOP A (CHNNL II-WHI) P XMTR	Yes		Y
1PT-479	12 STM GEN LOOP B (CHNL IV- YEL) P XMTR	Yes		Y
B-1	CONTROL PANEL B-1	No		Y
B15 LOGIC-2	BUS 15 LOGIC RELAY CAB 2	Yes		N
CV-31059	11 TD AFW PMP TRIP THROTTLE CV	No		Y
CV-31153	11 TD AFW PMP RECIRC/L-O CLG CV	No		Y
CV-31423	12 DD CLG WTR JCKT CLR OUTL CV	No		Y
CV-31505	D1 DSL GEN CLG WTR SPLY CV	No		Y
CV-31652	11 CLG WTR STRNR BCKWSH CV	No		Y

Table B-1: Prairie Island Unit 1 Completed SWCs				
Equipment Tag	Equipment Description	Anchorage Confirmed?	Comments	Checklist Status (Y/N)
CV-31953	D1 DSL GEN AIR START CV A	No		Y
CV-39401	11/13 FCU CLG WTR SPLY CV	No		N
D-1	CONTROL PANEL D-1	Yes		Y
D1/GEN RLY PNL	D1 DSL GEN RELAY PNL	Yes		Y
E-1	CONTROL PANEL E-1	Yes		N
EM-B1	U1 EVENT MON RACK EM-B1	Yes		N
MCC 1T2/XFR SW	MCC 1T2 XFR SW	No		N
MV-32017	12 SG MS SPLY TO 11 TD AFW PMP MV	No		Y
MV-32025	11 TD AFW PMP SUCT CL SPLY MV	No		Y
MV-32034	121 CLWP DSCH HDR MV A	No	Common	Y
MV-32077	SUMP B TO 11 RHR PMP TRN A (OUTSIDE) MV	No		Y
MV-32133	11 FCU CLG WTR OUTL ISOL MV B	No		Y
MV-32145	11 CC HX CLG WTR INLT MV	No		Y
MV-32238	11 AFW TO 11 SG MV	No		Y
MV-32242	11/12 AFW TO 11 SG ISOL MV	No		Y
MV-32380	14 FCU CLG WTR INLT ISOL MV	No		Y
MV-32381	12 MD AFW PMP DISCH TO 11 SG MV	No		Y
PNL 133/XFMR	DIST PNL 133 XFMR	No		Y
PNL 136/XFMR	DIST PNL 136 XFMR	No		Y

Table B-1: Prairie Island Unit 1 Completed SWCs				
Equipment Tag	Equipment Description	Anchorage Confirmed?	Comments	Checklist Status (Y/N)
PNL 191	DC DISTRIBUTION PANEL 191	Yes		Y
RS-21-1	11 SG MS HDR RELIEF	No		Y
SA-54-3	D1 DSL GEN MAIN AIR RCVR RELIEF	No	Common	Y
SV-33186	D1 DSL GEN WTR SPLY SV	No		Y
SV-33242	D1 DSL GEN AIR START VENT SV	No		Y
SV-33343	11 CLG WTR STRNR BCKWSH SV	No		Y
SV-33694	11 SFGDS SCRNHSE ROOF EXHT FAN CD-34137 SV	No	Common	Y
SV-37025	122 CONT RM AIR HNDLR OA SPLY CD-34145 SV	No	Common	Y
SV-37462	U1 TRN A CHLD WTR/CLG WTR ISOL SV	No		Y
VC-28-2	12 CHG PMP DISCH RELIEF	No		Y
035-012	122 SFP HX	Yes	SWEL 2	Y
045-102	122 SFP PMP	Yes	SWEL 2	Y

~

Sheet 1 of 2 Status: YX N U Seismic Walkdown Checklist (SWC) Equipment ID No. 22017 Equip. Class<sup>1</sup> (19) Temperature Sensors Equipment Description D1 DSL GEN RM TEMP XMTR Location: Bldg, <u>TURB</u> Floor El. \_ Room, Area EDG D-1\_\_\_\_ 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  $Y \square N \boxtimes$ of the 50% of SWEL items requiring such verification)? Wall mounted by four 1/4" concrete expansion anchor. 2. Is the anchorage free of bent, broken, missing or loose hardware? YX NO UO N/AO 3. Is the anchorage free of corrosion that is more than mild surface YX NO UO N/AO oxidation? The anchorage is clean and coated. 4. Is the anchorage free of visible cracks in the concrete near the anchors?  $Y \boxtimes N \square U \square N/A \square$ 5. Is the anchorage configuration consistent with plant documentation? Y ND UD N/A (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) 6. Based on the above anchorage evaluations, is the anchorage free of YX ND UD potentially adverse seismic conditions?

PROPRIETARY\_INFORMATION-- WITHHOLD FROM PUBLIC

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

....

DISCLOSURE

	IC-DISCLOSURE
	Sheet 2 of 2 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>22017</u> Equip. Class <sup>1</sup> (19) Temperature Ser	nsors
Equipment Description D1 DSL GEN RM TEMP XMTR	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting,	
<ul> <li>9 Do attached lines have adequate flexibility to avoid damage?</li> </ul>	
9. Do attached lines have adequate nextonity to avoid damage?	
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⊟
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Wally Djordjevic	Date: 16/25/12
Kyle Kriesel Jup hase	Date: <u>10,24,12</u>

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBL	IC DISCLOSURE
	Sheet 1 of 8
Seismic Walkdown Checklist (SWC)	Status: YX N U
Equipment ID No. 22024 Equip. Class <sup>1</sup> (19) Temperature Se	ensors
Equipment Description 121 MD CLG WTR PMP AREA T XMTR B	
Location: Bldg. SSCN Floor El. Room. Area SOUTH	
Manufacturer, Model, Etc. (optional but recommended) Foxboro Model 630	·
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenti	f an item of equipment on the the results of judgments and ng 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? The Seismic Walkdown Engineers (SWEs) noted different size anchors bolted to the wall. The first bolt is 7/16" in diameter and the second is 3/8" in diameter. The anchorage has adequate seismic capacity and is therefore acceptable.	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?	YM NO UO

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY INFORMATION WITHHOLD FROM PUBLI	C-DISCLOSURE
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 22024 Equip. Class <sup>1</sup> (19) Temperature Set	nsors
Equipment Description <u>121 MD CLG WTR PMP AREA T XMTR B</u>	
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?	YX NI UI
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NO UO
<u>Comments</u> (Additional pages may be added as necessary) None.	
Evaluated by: Bruce M. Lory Brune M. Jog	Date: 10-19-12
Dileep Cheropalle C.V.Dile & pkuman Reddy	10-19-12

:

,

rend relationships a second-s ---- ---- ---- ---- -----

1

•

Sheet 1 of 6

Seismic Walkdown Checklist (SWC)		
Equipment ID No. 55000	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description D1 DSL GEN GAU	IGE PANEL (DGP)	
Location: Bldg, <u>TURB</u> Floor El.	Room, Area EDG D-1	· · · · · · · · · · · · · · · · · · ·
Manufacturer, Model, Etc. (optional but rec	commended)	
Instructions for Completing Checklist This checklist may be used to document the SWEL. The space below each of the follow findings. Additional space is provided at the	e results of the Seismic Walkdown of ing questions may be used to record e end of this checklist for documentin	an item of equipment on the the results of judgments and og other comments.
Anchorage		
1. Is the anchorage configuration verifi of the 50% of SWEL items requiring	ication required (i.e., is the item one g such verification)?	Y□ N⊠
2. Is the anchorage free of bent, broken	n, missing or loose hardware?	Y⊠ N□ U□ N/A□
to new anchor age bracket.	ration isolators are non-active que	
3. Is the anchorage free of corrosion the oxidation?	at is more than mild surface	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible crack	as in the concrete near the anchors?	Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage configuration consist (Note: This question only applies if t which an anchorage configuration vertex)</li> </ol>	stent with plant documentation? he item is one of the 50% for erification is required.)	
<ol> <li>Based on the above anchorage evaluation potentially adverse seismic condition</li> </ol>	ations, is the anchorage free of us?	Y⊠ N□ U□

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	- WITHHOLD FROM FOBL	IIC DISCLOSULE	
		Sheet 2 of	6
Seismic Walkdown Checklist (SWC)		Status: YX N	U
Equipment ID No. <u>55000</u>	Equip. Class' <u>(20) Instrumentation</u> Cabinets	and Control Panels and	
Equipment Description D1 DSL GEN GAL	JGE PANEL (DGP)		
nteraction Effects			
7. Are soft targets free from impact by	nearby equipment or structures?		
The lighting fixture "S" hooks are cl	osed.		
8. Are overhead equipment, distribution and masonry block walls not likely	on systems, ceiling tiles and lighting, to collapse onto the equipment?	Y⊠ N□ U□ N/A□	
9. Do attached lines have adequate fle	xibility to avoid damage?	Y⊠ N□ U□ N/A□	
<ol> <li>Based on the above seismic interact of potentially adverse seismic intera</li> </ol>	ion evaluations, is equipment free action effects?	Y⊠ N□ U□	
ther Adverse Conditions			
11. Have you looked for and found no o adversely affect the safety functions	ther seismic conditions that could of the equipment?	YX NI UI	
Bottom latch has some apparent de engine vibration. This condition doe however, recommend repair for mai	terioration degradation due to as not affect seismic capacity; ntenance purposes.		
CAP 1353290 has been initiated to 883855 has also been initiated to add	evaluate this observation. WR tress this observation.		
omments (Additional pages may be added as	s necessary)		
valuated by: <u>Walter Djordjøvic</u>	With	Date: 10/25/	n
Kula Kriasel	L'	Date: 10.24.12	

.

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	LIC-DISCLOSURE
	Sheet 1 of 8 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 55400 Equip. Class <sup>1</sup> (14) Distribution Pane	els
Equipment Description D1 DSL GEN AUX CONT PNL	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record to findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and g 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□
Panel is mounted to two struts, per the drawing. The two struts are mounted to the wall by two 1/2" diameter concrete expansion anchors each.	
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□
<ol> <li>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.)</li> </ol>	Y⊠ N⊡ U⊡ N/A⊡
Drawing NF-40307-1 was used for anchorage verification.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>4</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	TC DISCLOSURE
Seismic Walkdown Checklist (SWC)	Sheet 2 of 8 Status: Y⊠ N□ U□
Equipment ID No. 55400 Equip. Class <sup>1</sup> (14) Distribution Pane	els
Equipment Description D1 DSL GEN AUX CONT PNL	
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? The attached lines are rigidly mounted.	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?	YXNUU
The internal components were inspected. No anomalies were identified.	
Comments (Additional pages may be added as necessary)	
Evaluated by: Walter Djordjevic	Date: 10/25/12
Kyle Kriesel Kyl hun	Date: 10,24,12

,

	IC DISCLOSURE	
	Sheet 1 of 14	
	Status: Y□ N⊠ U□	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>57304</u> Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and	
Equipment Description 122 CONT RM WTR CHLLR LCL CONT PNL		
Location: Bldg. AUX Floor El. Room, Area <u>122 CRM Cl</u>	- <u>ILR</u>	
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	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? No concrete, it is bolted to steel.	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□	

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY INFORMATION WITHHOLD FROM PUBL	IC DISCLOSURE
	Sheet 2 of 14
	Status: Y NX U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>57304</u> Equip. Class <sup>1</sup> (20) Instrumentation Cabinets	and Control Panels and
Equipment Description 122 CONT RM WTR CHLLR LCL CONT PNL	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
The room heater is located above the control panel 57304 and is restrained properly. It is not a seismic concern.	
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□
The light fixture in the vicinity of the control panel has an open "S" hook connecting the fixture to its chain at the bottom and at the ceiling connection. Both "S" hooks are open. The light fixture could fall under seismic loading and strike SV-5730419 and CS-5731407 and SA- 111-13.	
CAP 1352001 has been initiated to evaluate the open "S" hooks identified during these walkdowns. In addition to the action request, WR 83556 has been initiated to address this observation.	
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 NX 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: Dileep Cherlopalle C.V.Dileep Kuman Reddy	Date: <u>10 - 2-2 - 12 ·</u>
Bruce M. Lory Burne M. Long	10-21-12

1

.

The remaining pages are withheld from public disclosure.

,

- PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE Sheet 1 of 9
Status: $Y \boxtimes N \square U \square$
Seismic Walkdown Checklist (SWC)
Equipment ID No. <u>70300</u> Equip. Class <sup>1</sup> (20) Instrumentation and Control Panels and Cabinets
Equipment Description <u>12 DD CLWP LCL PNL</u>
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>12 DD CLWP</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? $Y \boxtimes N \square U \square N/A \square$
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?
Surface oxidation was noticed on channels supporting the panel at the base. SWEs judged that it is acceptable.
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \square U \square N/A \square$
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> <li>SQUG SEWs were used for anchorage verification. SWEs verified four anchors.</li> </ul>
6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

<ul> <li>Seismic Walkdown Checklist (SWC)</li> <li>Equipment ID No. <u>70300</u></li> <li>Equipment Description <u>12 DD CLWP LCL I</u></li> <li><u>Interaction Effects</u></li> <li>7. Are soft targets free from impact by 12</li> <li>8. Are overhead equipment, distribution and masonry block walls not likely to an intervent of the second s</li></ul>	Equip. Class <sup>1</sup> (20) Instrum Cabinets PNL nearby equipment or struct n systems, ceiling tiles and o collapse onto the equipm	tures? Y⊠ N□ U□ N/
Equipment ID No. <u>70300</u> Equipment Description <u>12 DD CLWP LCL I</u> <u>Interaction Effects</u> 7. Are soft targets free from impact by 1 8. Are overhead equipment, distribution and masonry block walls not likely to	Equip. Class <sup>1</sup> (20) Instrum Cabinets PNL nearby equipment or struct n systems, ceiling tiles and collapse onto the equipm	tures? Y⊠ N⊡ U⊡ N/
<ul> <li>Equipment Description <u>12 DD CLWP LCL I</u></li> <li><u>Interaction Effects</u></li> <li>7. Are soft targets free from impact by 1</li> <li>8. Are overhead equipment, distribution and masonry block walls not likely to block w</li></ul>	PNL nearby equipment or struct n systems, ceiling tiles and o collapse onto the equipm	tures? Y⊠ N⊡ U⊡ N/
<ul> <li>Interaction Effects</li> <li>7. Are soft targets free from impact by a</li> <li>8. Are overhead equipment, distribution and masonry block walls not likely to</li> </ul>	nearby equipment or struct n systems, ceiling tiles and c collapse onto the equipm	tures? Y⊠ N⊡ U⊡ N/
<ol> <li>7. Are soft targets free from impact by a</li> <li>8. Are overhead equipment, distribution and masonry block walls not likely to</li> </ol>	nearby equipment or struct n systems, ceiling tiles and c collapse onto the equipm	tures? Y⊠ N□ U□ N/
<ol> <li>Are overhead equipment, distribution and masonry block walls not likely to</li> </ol>	n systems, ceiling tiles and collapse onto the equipm	
		ingitting, TX N 01 N
9. Do attached lines have adequate flex	ibility to avoid damage?	Y⊠ N⊟ U⊟ N
10. Based on the above seismic interaction of potentially adverse seismic interaction	on evaluations, is equipment tion effects?	nt free Y⊠ N□ U□
Other Adverse Conditions 11. Have you looked for and found no ot	her seismic conditions that	t could Y⊠ N□ U□
adversely affect the safety functions The cabinet internals were inspected component hardware was found.	of the equipment? I and no loose or missing	
Comments (Additional pages may be added as	necessary)	

Evaluated by: <u>Dileep Cherlopalle</u>	C.V. Dileo pKumar Rezdy	Date: Date:
Bruce M. Lory	Bune H. by	10-26-12

- PROPRIETARY INFORMATION - WITHHOLD FROM PUB	LIC-DISCLOSURE
	Sheet 1 of 5
Sciemic Walkdown Chacklist (SWC)	Status: Y N U
Environment ID Nr. 022 011	
Equipment ID No. <u>032-011</u> Equip. Class <sup>2</sup> (09) Fans	
Equipment Description <u>127 DT OSE GEN EXHT FAN</u>	
Location: Bidg. <u>TOHB</u> Floor El. <b>Bidg.</b> Room, Area <u>EDG D-1</u>	
Manufacturer, Model, Etc. (optional but recommended)	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ag 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 anchorage is clean and coated.	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	
<ol> <li>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.)</li> </ol>	
Drawing XH-175-23 was used for verification.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YN NO UO

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

4

- PROPRIETARY INFORMATION - WITHHOLD FROM PUB	LIC DISCLOSURE
Seismic Walkdown Chooklist (SWC)	Sheet 2 of 5 Status: Y⊠ N□ U□
Equipment ID No. <u>032-011</u> Equip. Class <sup>1</sup> (09) Fans	
Equipment Description <u>121 D1 DSL GEN EXHT FAN</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
The "S" hook for the lighting fixtures appear to be closed and are not a credible hazard to fans.	
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?	YM ND UD
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Walter Djordjevic	Date: $10/25/p$
Kyle Kriesel Ky / Krise	Date: <u>10,24,12</u>

\_

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE -

Sheet 1 of 3 Status:  $Y \boxtimes N \bigsqcup U \bigsqcup$ 

Seismic Walkdown Checklist (SWC)	
Equipment ID No. 032-041 Equip. Class' (09) Fans	· · · · · · · · · · · · · · · · · · ·
Equipment Description <u>121 D1 DSL GEN SPLY FAN</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>	······································
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ing 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⊡
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>The anchorage is clean and coated.</li> </ol>	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.) Drawing X-HIAW-175-24, Revision A, was used for verification.	Y⊠ N⊡ U⊡ N/A⊡
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO

\* Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 3
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N∐ U∟
Equipment ID No. 032-041 Equip. Class <sup>1</sup> (09) Fans	
Equipment Description <u>121 D1 DSL GEN SPLY FAN</u>	
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? <i>The lighting fixtures do not pose a credible hazard.</i>	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?	YM NO UO
Comments (Additional pages may be added as necessary)	
Evaluated by: <u>Dennis Zercher</u>	Date: 10-17-2012
Walter Djordjevic	( ) / 25 /12

The remaining pages are withheld from public disclosure.

\_\_\_\_\_

.

	-DISCLOSURE
	Sheet 1 of 7
	Status: VX N II
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 032-292 Equip. Class <sup>1</sup> (09) Fans	
Equipment Description 122 CONT RM CLEAN-UP FAN	
Location: Bldg. AUX Floor El. Room, Area <u>122 CRM CH</u>	LR
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of a SWEL. The space below each of the following questions may be used to record the findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the he results of judgments and g 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□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

•

	Sheet 2 of 7
Seismic Walkdown Checklist (SWC)	Status: YX N U
Equipment ID No. 032-292 Equip. Class <sup>1</sup> (09) Fans	
Equipment Description <u>122 CONT RM CLEAN-UP FAN</u>	
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□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Dileep Cherlopalle C. V. Dileep Kuman Reddy.	Date: 10-18-12
Bruce Lory Bruce M. Jong	10-18-12

-

PROPRIETARY\_INFORMATION WITHHOLD\_FROM\_PUBLIC\_DISCLOSURE

Sheet 1 of 6 Status:  $Y \boxtimes N \square U \square$ 

#### Seismic Walkdown Checklist (SWC)

Equipment ID No. 034-011 Equip. Class<sup>1</sup> (17) Engine Generators

Equipment Description D1 DSL GEN

Location: Bldg. TURB Floor El.

Room, Area EDG D-1

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	Y⊠ N□
	of the 50% of SWEL items requiring such verification)?	

2	Is the anchorage free of bent, broken, missing or loose hardware?	YM NU UU N/AU
3.	Is the anchorage free of corrosion that is more than mild surface oxidation?	Y⊠ N□ U□ N/A□
	The anchorage is clean and coated.	
4.	Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N□ U□ N/A□
	Some small cracks in grout but none are at or near anchors. There is no seismic 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⊡

6. Based on the above anchorage evaluations, is the anchorage free of  $Y \boxtimes N \square U \square$ 

potentially adverse seismic conditions?

Anchorage was compared to SEWS for verification.

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Sheet 2 of 6 Status: Y⊠ N□ U□
Equipment ID No. 034-011 Equip. Class <sup>1</sup> (17) Engine Generate	DIS
Equipment Description <u>D1 DSL GEN</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	YX NO UO N/AO
Some light fixtures in the area have open "S" hooks, but these light fixtures are not near enough air lines to be a credible hazard. The "S" hooks should be closed for maintenace purposes.	
CAP 1352001 has been initiated to evaluate the open "S" hooks observed during the walkdowns. In addition to writing an action request, WR 83556 has been initiated to address the observations.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	
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□
The rod hung unit steam heater attached to the piping has adequate flexibility to accommidate heater movement, and is not a seismic concern.	
Comments (Additional pages may be added as necessary)	

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

-

-

Evaluated by: Walter Djordjevic		Mat	Date:	10/15/p
Kyle Kriesel	Kyl thread		Date:0	1.24.12
-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE -				
--	--	--	--	
Sheet 1 of 5				
Status: Y N U				
Seismic Walkdown Checklist (SWC)				
Equipment ID No. 045-592 Equip. Class <sup>1</sup> (05) Horizontal Pumps				
Equipment Description <u>122 CONT RM CHLD WTR PMP</u>				
Location: Bldg. AUX Floor El. Room, Area <u>122 CRM CHLR</u>				
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 Y⊠ N□ of the 50% of SWEL items requiring such verification)?				
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□				
<ol> <li>Is the anchorage free of corrosion that is more than mild surface</li> <li>Y⊠ N□ U□ N/A□ oxidation?</li> </ol>				
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \square U \square N/A \square$				
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> <li>Referenced Drawing NF-38301-18 for anchorage verification.</li> </ul>				
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>				

, ,

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY-INFORMATION WITHHOLD-FROM-PUBLI	<del>C DISCLOSURE</del>
	Sheet 2 of 5
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□
Equipment ID No. 045-592 Equip. Class <sup>1</sup> (05) Horizontal Pumps	S
Equipment Description <u>122 CONT RM CHLD WTR PMP</u>	
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?	YM NO UO
Other Adverse Conditions	
adversely affect the safety functions of the equipment?	YXINLIULI
Comments (Additional pages may be added as necessary)	
Evaluated by: Dileep Cherlopalle C.V.Dileep Kuman Reddy	Date: 10-18-12.
Bruce Lory Bruce M. Jory	10-18-12

-PROPRIETARY INFORMATION WITHHOLD FROM PUB:	LIC DISCLOSURE		
	Sheet 1 of 3		
	Status: YX N U		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. 046-031A Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers		
Equipment Description D1 DSL GEN START-UP AIR RCVR A			
Location: Bldg, <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>			
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?			
3. Is the anchorage free of corrosion that is more than mild surface oxidation? The anchorage is clean and coated.	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.) Drawing NF-38512-2G and Colt Industry Drawing 11866099 used for verification.	Y⊠ N□ U□ N/A□		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO		

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY INFORMATIONWITHHOLD FROM PUP	HIC DISCLOSURE -
Seismic Walkdown Checklist (SWC)	Sheet 2 of 3 Status: Y⊠ N□ U□
Equipment ID No. 046-031A Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>D1 DSL GEN START-UP AIR RCVR A</u>	·
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? There is vertical ductwork that spans between two floors. It is rigid and therefore is not a seismic concern.	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate flexibility to avoid damage? There is a conduit in contact with the 1-CHW-387 pipe support, but it is adjudged to be acceptable because there is little relative movement. It is not a seismic concern.	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	
<ol> <li>Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? There were none observed.</li> </ol>	YM NI UI
Comments (Additional pages may be added as necessary)	
Evaluated by: Dennis Zercher Don Jun h	Date: 10-17-2012
Walter Djordjevic	10-25-12

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

#### SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

> Sheet 1 of 5 Status:  $Y \boxtimes N \square U \square$

YX NO UO N/AO

#### Seismic Walkdown Checklist (SWC)

Equipment ID No. 053-201 Equip. Class<sup>1</sup> (21) Tanks and Heat Exchangers

Equipment Description D1 DSL GEN FUEL OIL DAY TANK

Location: Bldg. TURB Floor El. Room, Area EDG D-1

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	Y⊠ N□
	of the 50% of SWEL items requiring such verification)?	

2. Is the anchorage free of bent, broken, missing or loose hardware?

- 3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?
- 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? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)

Compared to SEWS, and Drawings NF-38298-10, NF -38312-5, NF-38313-1 for anchorage verification.

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

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC DISCLOSURE
	Sheet 2 of 5 Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 053-201 Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description D1 DSL GEN FUEL OIL DAY TANK	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
The light fixtures have closed "S" hooks and are not a seismic concern. There is no sight glass, so there are no soft target concerns.	
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?	
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Walter Djordjevic</u>	Date: 10/25/p Date: 10.24.12

- PROPRIETARY-INFORMATION WITHHOLD FROM PUB:	LIC DISCLOSURE
· · · · · · · · · · · · · · · · · · ·	Sheet 1 of 5
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 053-321 Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>12 DD CLG WTR PMP DSL OIL DAY TNK</u>	
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>12 DD CLW</u>	P
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of the space is provided at the end of the space space.	f an item of equipment on the the results of judgments and ng 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□
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware? The day tank foundation has eight (7/8" diameter) anchors. One of these anchors appears to not be fully seated.</li> </ol>	Y□ N⊠ U□ N/A□
CAP 01352845 has been initiated to evaluate this observation. In addition to writing an action request, WR 83768 had been initiated to address this observation.	
<ol> <li>Is the anchorage free of corrosion that is more than mild surface oxidation?</li> <li>Anchors are coated.</li> </ol>	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N⊟ U⊟ N/A⊟
<ol> <li>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.)</li> <li>Verified against drawings NF-38350-335 and NF-38350-4.</li> </ol>	Y⊠ N□ U□ N/A□

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARI INFORMATION - WITHHOLD FROM FOR	JIC DIBCHOBORE
	Sheet 2 of 5
Salemia Walkdown Chaekliet (SWC)	Status: Y NX U
Equipment ID No. <u>053-321</u> Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>12 DD CLG WIR PMP DSL OIL DAY INK</u>	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YLINLIULI
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,	Y⊠ N□ U□ N/A□
and masonry block walls not likely to collapse onto the equipment?	
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?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
Comments (Additional pages may be added as necessary)	

.

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 3 of 5 Status:  $Y \square N \boxtimes U \square$ 

## Seismic Walkdown Checklist (SWC)

 Equipment ID No. 053-321
 Equip. Class<sup>1</sup> (21) Tanks and Heat Exchangers

 Equipment Description 12 DD CLG WTR PMP DSL OIL DAY TNK

 Evaluated by: Walter Djordjevic

 Dennis Zercher

Dennis Zercher

- PROPRIETARY INFORMATION WITHHOLD FROM PUBLI	C DISCLOSURE
	Sheet 1 of 5
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 053-382 Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>122 CONT RM CHLD WTR EXPN TNK</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>122 CRM CH</u>	ILR
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record the findings. Additional space is provided at the end of this checklist for documenting the space of the space	an item of equipment on the the results of judgments and ag 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.) Anchorage verification was performed using SQUG SEWS. The SQUG anchorage calculation assumes one bolt is acting in resisting all shear and all tension. Calculations show that the expansion anchor size agrees with "as installed" anchors. Therefore, SWEs judge anchorage verification is validated based on this conservative analysis.	Y⊠ N□ U□ N/A□

- / /

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATIONWITHHOLD-FROM PUBLIC DISCLOSURE-		
	Sheet 2 of 5	
	Status: Y⊠ N□ U□	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. 053-382 Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers	
Equipment Description <u>122 CONT RM CHLD WTR EXPN TNK</u>		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO	
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		
adversely affect the safety functions of the equipment?		

<u>Comments</u> (Additional pages may be added as necessary)

	<u> </u>
Sheet 3	of 5
Status: Y⊠ N	U U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 053-382 Equip. Class <sup>1</sup> (21) Tanks and Heat Exchangers	
Equipment Description <u>122 CONT RM CHLD WTR EXPN TNK</u>	
Evaluated by: Dileen Cherlopalle $r$ $y$ , $p$ $le = r$ $y$ , $p$ $le = r$ $here r here r here here here r here here r here here r here here here r here here r here here here r here here r here here here r here here here r here here here here here here r here here here here here here here her$	12

. .

. --

10-18-12 Bune M. Jory Bruce Lory \_\_\_\_

- PROPRIETARY-INFORMATION - WITHHOLD-FROM-PUBL	IC-DISCLOSURE
	Sheet 1 of 12
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□
Equipment ID No. 069-242 Equip Class <sup>1</sup> (00) Other	
Equipment Description 122 CONT BM PAC FLTB	π. στο το πολογιστικό το πολογιστικό ματά τη πολογιστική που ματά το πολογιστικό που ματά το πολογιστικό που μ Τα πολογιστικό που παραγό το πολογιστικό που ματά το πολογιστικό που ματά το πολογιστικό που ματά το πολογιστικό
Legation, Pldg A//Y Elegatel Room Area 122 CBM Cl	
Location: Bidg. <u>ADA</u> Floor El. <b>Room, Alea</b> <u>122 CHM/C/</u>	
Manufacturer, Model, Etc. (optional but recommended)	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	f an item of equipment on the the results of judgments and ng 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□
<ul><li>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.)</li></ul>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

. -

Ň

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 12	
Sejemic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□	
Equipment ID No. <u>009-242</u> Equip. Class' (00) Other		
Equipment Description <u>122 CONT AM PAC PLIN</u>		
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□	
One light fixture has an open "S" hook on the bottom connection of the chain. Under earthquake conditions SWEs judge that the light fixture will drop off the open "S" hook and swing into the filter. SWEs judged that impact is credible but not significant. The light fixture will not impact the soft target of the glass window. Therefore, the safety function is not impaired.		
CAP 01352001 has been initiated to evaluate the open "S" hooks identified during these walkdowns. In addition to writing an action request, WR 83556 has been initiated to address this observation.		
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□	

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC	-DISCLOSURE
	Sheet 3 of 12
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>069-242</u> Equip. Class <sup>1</sup> (00) Other	
Equipment Description 122 CONT RM PAC FLTR	
Comments (Additional pages may be added as necessary)	

.

Evaluated by: <u>Dileep Cherlopalle</u> C.V. DileopKumerRedby Date: 10-26-12 <u>Bruce M. Lory</u> <u>Benne M. Jong</u> <u>10-26-12</u>

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	IC DISCLOSURE
	Sheet 1 of 9
Solomia Walkdown Chaoklist (SWC)	Status: Y⊠ N□ U□
Seisinic Walkdown Checklist (SWC)	
Equipment ID No. <u>076-022</u> Equip. Class <sup>1</sup> (10) Air Handlers	
Equipment Description <u>122 CONT RM AIR HNDLR</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>122 CRM CH</u>	ILR
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and og 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?	YX NI UI N/AI
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□
<ol> <li>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.)</li> <li>The anchorage verification used the SQUG SEWs which states the air handler is rod hung using six - 1/2" diameter rods with vibration isolators.</li> </ol>	Y⊠ N⊡ U⊡ N/A⊡
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of Status: Y⊠ N□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 076-022 Equip. Class <sup>1</sup> (10) Air Handlers	
Equipment Description <u>122 CONT RM AIR HNDLR</u>	
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?	YM ND UD
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□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Dileep Cherlopalle C. V. Dilee pkower Reddy</u>	_ Date:10 - 19
Bruce Lory June M. Joy	10-18-12

.

-PROPRIETARY-INFORMATIONWITHHOLD FROM PUBLIC -DISCLOSURE
Sheet 1 of 8
Status: Y N U
Seismic Walkdown Checklist (SWC)
Equipment ID No. <u>11 BATT</u> Equip. Class <sup>1</sup> (15) Batteries on Racks
Equipment Description <u>11 BATTERY (&amp; BATTERY RACK)</u>
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>11 BATT RM</u>
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 Y⊠ N□ of the 50% of SWEL items requiring such verification)?
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 Y⊠ N□ U□ N/A□ oxidation?
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \square U \square N/A \square$
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ul>
SQUG SEWs were referenced for anchorage verification. SWEs verified there were four anchors for each bay frame.
6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Status: Y⊠ N∐ U∐
Equipment ID No. <u>11 BATT</u> Equip. Class <sup>1</sup> (15) Batteries on Rac	ks
Equipment Description <u>11 BATTERY (&amp; BATTERY RACK)</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
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 Burne M. Lory	Date: 10-18-12

.

•

PROPRIETARY INFORMATION WITHHOLD FROM PUBLI	C-DISCLOSURE -
	Sheet 1 of 10
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□
Equipment ID No. 111M/YEMP Equip Closel (04) Transformere	
Equipment ID No. <u>THEMANNE</u> Equip. Class- <u>(04) Transformers</u>	
Location: Bldg. <u>IUHB</u> Floor El. Room, Area <u>BUS 111</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ng 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□
<ul><li>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.)</li></ul>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLI	<del>C DISCLOSURE ~</del>
	Sheet 2 of 10
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>111M/XFMR</u> Equip. Class <sup>1</sup> (04) Transformers	
Equipment Description <u>111M Transformer</u>	
Interaction Effects	
7 An articles	
7. Are soft targets free from impact by nearby equipment or structures?	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? The HVAC uses thread rod and inserts on 8' to 10' spacing and looks acceptable. This is not a seismic concern.	Y⊠ N⊡ U⊡ N/A∐
9 Do attached lines have adequate flexibility to avoid damage?	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YM NO UO
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NO UO
Comments (Additional pages may be added as necessary)	
There is a coil of cable that looks like it is coiled up using electrical tape. with 111M XFMR. CAP 01353147 has been initiated to evaluate this o action request, WR 83841has been initiated to address this observatio	This is not a seismic issue observation. In addition to the on.
Evaluated by: Bruce M. Lory Bruce M. Lory	Date: 10-25-12
Dileep Cherlopalle C.V. Dicleept, mar Reddy	10-25-12

The remaining pages are withheld from public disclosure.

.

- PROPRIETARY INFORMATION -- WITHHOLD -- FROM -- PUBLIC -- DISCLOSURE -----

	Sheet 1 of 5
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N_ U_
Equipment ID No. <u>112M/XFMR</u> Equip. Class <sup>1</sup> (04)Transformers	
Equipment Description <u>112M TRANSFORMER</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>112 BUS</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and ag 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⊡

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 5 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>112M/XFMR</u> Equip. Class <sup>1</sup> (04) Transformers	
Equipment Description <u>112M TRANSFORMER</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
Some "S" hooks may be open on lighting fixtures but they are not a credible hazard to the transformer.	
CAP 01352001 has been initiated to evaluate the open "S" hooks identified during the walkdowns. In addition to writing this action request, WR 83556 has been initiated to address this observation.	
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 cooler and supply and return lines are well supported so there is no reasonable potential for spray down or flood in the event of an earthquake.	
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?	YM NO UO
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM ND UD
Comments (Additional pages may be added as necessary)	
,	
Evaluated by: <u>Walter Djordjevic</u>	Date: 10/25/n
Kyle Kriesel for this	10.24.12

-PROPRIETARY INFORMATION - WITHHOLD FROM PUB	LIC DISCLOSURE
	Sheet 1 of 4
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>117-111</u> Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>11 TD AFW PMP L-O CLR</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>11 AFWP</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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)?	YØ NO
2. Is the anchorage free of bent, broken, missing or loose hardware?	
There is a u-bolt to the base plate. The base plate is anchored by four 3/8" diameter concrete expansion anchors.	
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⊡
<ol> <li>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.)</li> </ol>	
SWE's used drawing ND-100059 for verification.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO

. .

. .

.

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (S	WC)	Sheet 2 of 4 Status: Y⊠ N□ U[
Equipment ID No. <u>117-111</u>	ment ID No. <u>117-111</u> Equip. Class <sup>1</sup> <u>(21) Tanks and Heat Exchangers</u>	
Equipment Description <u>11 TD AFW I</u>	PMP L-O CLR	
Interaction Effects		
7. Are soft targets free from impa	act by nearby equipment or structures?	Y⊠ N□ U□ N/A□
<ol> <li>Are overhead equipment, distr and masonry block walls not li</li> </ol>	ibution systems, ceiling tiles and lighting, ikely to collapse onto the equipment?	Y⊠ N⊡ U⊡ N/A⊡
9. Do attached lincs have adequate	te flexibility to avoid damage?	
<ol> <li>Based on the above seismic int of potentially adverse seismic it</li> </ol>	teraction evaluations, is equipment free interaction effects?	Y⊠ N⊟ U⊟
Other Adverse Conditions	······	
<ol> <li>Have you looked for and found adversely affect the safety func</li> </ol>	d no other seismic conditions that could ctions of the equipment?	Y⊠ N⊡ U⊡
There is a power plug cable wo deemed acceptable and not a s	ound around a digital tachometer. It is seismic hazard.	
Comments (Additional pages may be ad	ded as necessary)	·
· · ·		
Evaluated by: <u>Walter Djordjevic</u>	Went	Date:
Kyle Kriesel	1 ture	Date: 11.2.12

,

.

. . .

•
## SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY INFORMATION -- WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 1 of 4 Status: YX N U Seismic Walkdown Checklist (SWC) Equipment ID No. <u>12 BATT</u> Equip. Class<sup>1</sup> (15) Batteries on Racks Equipment Description <u>12 BATTERY (& BATTERY RACK)</u> Location: Bldg. TURB Floor El. \_\_\_ Room, Area <u>12 BATT RM</u> 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  $Y \boxtimes N \square$ of the 50% of SWEL items requiring such verification)? 2. Is the anchorage free of bent, broken, missing or loose hardware? YX NO UO N/AO 3. Is the anchorage free of corrosion that is more than mild surface YX NO UO N/AO oxidation? 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? YX NO UO N/AO (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Drawing NF-38221-13 was used for verification.

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

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

~ PROPRIETARY INFORMATION WITHHOLD FROM PUBL	IC DISCLOSURE
Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N□ U□
Equipment ID No. <u>12 BATT</u> Equip. Class <sup>1</sup> (15) Batteries on Rec	ks
Equipment Description <u>12 BATTERY (&amp; BATTERY RACK)</u>	
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? The safety related block walls number 5 and number 7 are acceptable.	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? There are "head bumper" foam covers at the end of the cabinetry supports. If they were to fall off, they are nonconductive and light weight and therefore are not a seismic concern.	YM NO UO
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Dennis Zercher</u> Dan Multin Walter Djordjevic	Date: 10-17-2012 10/25/12
Walter Djordjevic	_/6/25/12

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION WITHHOLD FROM PUD:	LIC-DISCLOSURE
	Sheet 1 of 6
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>12 BATT CHG</u> Equip. Class <sup>1</sup> (16) Battery Charger	s and Inverters
Equipment Description <u>12 BATTERY CHARGER</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>12 BATT RA</u>	Λ
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and ng 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?	YKI NLI ULI NALI
3. Is the anchorage free of corrosion that is more than mild surface	
oxidation?	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N□ U□ N/A□
There is one small crack on the floor, but it is not through the grout pad. This is not a seismic concern.	
5. Is the anchorage configuration consistent with plant documentation?	Y⊠ N□ U□ N/A□
which an anchorage configuration verification is required.) Drawing NF-38221-12 and AES PI-996-94-S01 documents were used for verification.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION WITHHOLD FROM PUE	HIC DISCLOSURE
	Sheet 2 of 6 Status: Y⊠ N⊡ U⊡
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>12 BATT CHG</u> Equip. Class <sup>1</sup> (16) Battery Chargers	s and Inverters
Equipment Description <u>12 BATTERY CHARGER</u>	
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	
<ol> <li>Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? The SWEs opened both doors on 12 BATT CHG. There were no issues identified.</li> </ol>	YM NO UO
Comments (Additional pages may be added as necessary)	
	,
Evaluated by: Walter Djordjevic	Date: _/6/25/12
Dennis Zercher	10-17-2012

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

ν

-PROPRIETARY INFORMATION WITHHOLD FROM PUBL	IC DISCLOSURE Sheet 1 of 3
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>122M/XFMR</u> Equip. Class <sup>1</sup> (04)Transformers	
Equipment Description <u>122M TRANSFORMER</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>122 BUS</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record the findings. Additional space is provided at the end of this checklist for documenting the space of the space	an item of equipment on the he results of judgments and g 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⊡
The SWEs noted the presence of shrinkage cracks in the concrete, but they are not a seismic 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⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 3
Seismic Walkdown Checklist (SWC)	Status: YX N U
Equipment ID No. <u>122M/XFMR</u> Equip. Class <sup>1</sup> (04)Transformers	····
Equipment Description <u>122M TRANSFORMER</u>	
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?	YX NO UO
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 Berne M. Lory	Date: 10-21-12
Dennis Zercher Durfunch	10-22-2012

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLE	<del>C DISCLOSURE \</del>	
	Sheet 1 of 7	
	Status: Y⊠ N□ U□	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>125MR</u> Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and	
Equipment Description 125 Miscellaneous Relay Rack		
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>ROD DRIVE</u>	· · · · · · · · · · · · · · · · · · ·	
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⊠	
Anchored by four 5/8" concrete expansion anchors, one in each corner.		
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□	
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□	

`

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	PROPRIETARY INFORMATIO	NWITHHOLD-FROM-PUBLI	<del>C DISCLOSURE</del>
			Sheet 2 of 7
<b>.</b>			Status: Y⊠ N□ U□
Seisn	nic Walkdown Checklist (SWC)		
Equip	ment ID No. <u>125MR</u>	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	nd Control Panels and
Equip	ment Description 125 Miscellaneous	Relay Rack	
Intera	ction Effects		
7.	Are soft targets free from impact by	nearby equipment or structures?	Y⊠ N□ U□ N/A□
	The light fixture "S" hooks are closed	d. No seismic concerns identified.	
8.	Are overhead equipment, distributio and masonry block walls not likely t	n systems, ceiling tiles and lighting, o collapse onto the equipment?	Y⊠ N□ U□ N/A□
	Overhead air handling unit is suppor hanger is a cross member and is no casing.	ted by three rod hangers. One rod t positively secured to air handler	
	Site engineering has reviewed this on seismic concern. Please refer to for the disposition of this observation	bservation and concluded there is the table contained in Appendix F n.	
9.	Do attached lines have adequate flex	ibility to avoid damage?	Y⊠ N□ U□ N/A□
	Masonry block wall number 36 is sa acceptable.	fety related, so it is seismically	
10.	Based on the above seismic interaction of potentially adverse seismic interaction	on evaluations, is equipment free ction effects?	Y⊠ N□ U□
	Cabinet was inspected internally and mounting hardware or structural fast	d no loose or missing component eners were identified.	
<u>Other</u>	Adverse Conditions		
11.	Have you looked for and found no o adversely affect the safety functions	ther seismic conditions that could of the equipment?	Y⊠ N□ U□

-

	Sheet 3 of 7
Salamia Walkdown Chaoldiat (SWO)	Status: Y N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>125MR</u>	Equip. Class <sup>1</sup> (20) Instrumentation and Control Panels and Cabinets
Equipment Description <u>125 Miscellaneous</u>	s Relay Rack
Evaluated by: Brane M	. Arm Date: 10-21-12
Durg	10.22-12

.

~ PROPRIETARY - INFORMATION --- WITHHOLD -FROM -- PUBLIC- DISCLOSURE --

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	IC DISCLOSURE
	Sheet 1 of 8
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N∐ U∐
	_ /
Equipment ID No. <u>135-101</u> Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>12 CLG WTR PMP DSL JCKT CLG HX</u>	
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>12 DD CLW</u>	Ö
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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□
The SQUG SEWS was used to verify the anchorage.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 8 Status: $Y \boxtimes N \square U \square$
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>135-101</u> Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers
Equipment Description <u>12 CLG WTR PMP DSL JCKT CLG HX</u>	
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?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Bruce M. Lory</u> <u>Bruce M. Jorg</u>	Date: <u>16-26-12</u>
Dileep Uneriopalle C-V. Dileep Kumar Roddy	Date: <u>10-26-12</u>

.

. .

,

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

.

PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE
Sheet 1 of 6 Status: Y⊠ N∏ U∏
Seismic Walkdown Checklist (SWC)
Equipment ID No. <u>145-042</u> Equip. Class <sup>1</sup> (05) Horizontal Pumps
Equipment Description <u>12 CHG Pump</u>
Location: Bldg. AUX Floor El. Room, Area <u>12 CHRG PMP</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
The anchorage is composed of eight 1 1/8" cast in place anchors.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□
<ul> <li>3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?</li> <li>The anchorage is clean and coated.</li> </ul>
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \square U \square N/A \square$ There are cracks in the floor but they do not cross through anchors.
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> <li>Drawing NF-38308-01 and SOUG SEWs were used for anchorage</li> </ul>
<ul> <li>6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ul>

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Selsmic Walkdown Checklist (SWC)	Status	Sheet 2 of 6 : Y⊠ N□ U□
Equipment ID No. <u>145-042</u> Equip. Class' <u>(05) Horizontal Pump</u>	<u>s</u> _	
Equipment Description <u>12 Crid Pump</u>		
Interaction Effects		
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□	
There are open "S" hooks on lighting fixtures but they are not deemed a credible hazard to the charging pumps.		
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.		
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⊟	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX N	U
Other Adverse Conditions	<u>.</u>	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX ND	Π
Contaminated Radiation sign stanchions can not overtum due to bottom mass. As a recommendation, they should be positively secured to skid.		
<u>Comments</u> (Additional pages may be added as necessary)		
Evaluated by: <u>Walter Diordievic</u>	Date:	11-5-12 1,25,12

-PROPRIETARY INFORMATION -- WITHHOLD FROM PUBLIC DISCLOSURE

### SUNSI--WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY-INFORMATIONWITHHOLD-FROM-PUBLI	<del>C-DISCLOSURE \</del> Sheet 1 of 9
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>145-071</u> Equip. Class <sup>1</sup> (05) Horizontal Pumps	3
Equipment Description 11 SI PMP	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>11/12 SI PUN</u>	<i>NP</i>
Manufacturer, Model, Etc. (optional but recommended) Bingham	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record t findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the he results of judgments and g 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□
<ol> <li>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.)</li> </ol>	Y⊠ N□ U□ N/A□
SWEs referenced drawing XH-1-633 for anchorage verification. This drawing showed ten 1" anchors. The anchorage was verified.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY-INFORMATION WITHHOLD-FROM-PUBLE	<del>C DISCLOSURE</del> Sheet 2 of
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□
Equipment ID No. 145-071 Equip Class <sup>1</sup> (05) Horizontal Pump	s
Equipment Description <u>11 SI PMP</u>	0
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
8 Are overhead equipment distribution systems ceiling tiles and lighting	
and masonry block walls not likely to collapse onto the equipment?	
9 Do attached lines have adequate flexibility to avoid damage?	
9. Do attached mics have adequate nextbinty to avoid damage:	
10 Reced on the above coismic interaction evaluations, is equipment from	
of potentially adverse seismic interaction effects?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
	นารการการการการการการการการการการการการกา
<u>Comments</u> (Additional pages may be added as necessary)	
There is a temporary power supply cable to the radiation sign, but there i	is no seismic concern.
Evaluated by: Dileep Cherlopalle C. v. Dileer Kumar Redd.	Date:10 - 19-12
Bruce Lory Brune M. Jory	10-18-12

-

#### SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

t.

· PROPRIETARY INFORMATION WITHHOLD FROM PUBL	IC DISCLOSURE
	Sheet 1 of 9
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>145-122</u> Equip. Class <sup>1</sup> (05) Horizontal Pump	s
Equipment Description <u>12 CC PMP</u>	
Location: Bldg. AUX Floor El. Room, Area <u>12/22 CC PL</u>	IMP
Manufacturer, Model, Etc. (optional but recommended) EM	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and ng 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	YX NI UI N/AI
oxidation?	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N□ U□ N/A□
5. Is the exchange 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.) Referenced drawing XH-105-5 for anchorage verification.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>1</sup>Enter the equipment class name from Appendix B: Classes of Equipment.

.

,

	Sheet 2 of 9 Status: V⊠ N□ U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>145-122</u> Equip. Class <sup>1</sup> (05) Horizontal Pumps	3
Equipment Description <u>12 CC PMP</u>	
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?	YM ND UD
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
Comments (Additional pages may be added as necessary)	
Foreign material (black insulation 1" x 2" x 8") found behind the 12 CC pu 375 (support number). CAP 1352321 issued to address FME problem	mp at column base 1-CCH- ıs.
Evaluated by: Dileep Cherlopalle C.V. Dileep Kumor Reddy	Date: 10-19-12

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

·

.

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

.

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE Sheet 1 of 4 Status: YX N U Seismic Walkdown Checklist (SWC) Equipment ID No. <u>145-201</u> \_ Equip. Class<sup>1</sup> (05) Horizontal Pumps Equipment Description <u>11 TD AFW PMP</u> \_ Room, Area <u>11 AFWP</u> Location: Bldg. TURB \_ Floor El. 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  $Y \boxtimes N \square$ of the 50% of SWEL items requiring such verification)? 2. Is the anchorage free of bent, broken, missing or loose hardware? YX NO UD N/AO 3. Is the anchorage free of corrosion that is more than mild surface YX NO UO N/AO oxidation? The anchorage is clean and coated. 4. Is the anchorage free of visible cracks in the concrete near the anchors?  $Y \boxtimes N \square U \square N/A \square$ 5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) The SWE's referenced drawing NF-38221-9 for anchorage verification ... 6. Based on the above anchorage evaluations, is the anchorage free of YX NO UD potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Selsmic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N□ U□
Equipment ID No. 145-201 Equip Classe (05) Horizontal Pump	c
Equipment Description 11 TD AFW PMP	<u>.</u>
Internation Effects	i
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
The light fixtures have closed "S" hooks.	
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□
There are no masonry walls. The overhead cable tray and conduits are well supported.	
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
There is a light fixture in contact with the incoming conduit, but this is not a seismic issue.	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YM NO UO
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX ND UD
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Walter Diordievic	Date: 11-5-12
Kyle Kriesel My Muse	Date: 10.25.12

÷

### SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

.

	BLIC DISCLOSURE
	Sheet 1 of 5
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>145-392</u> Equip. Class <sup>1</sup> (06) Vertical Pum	ps
Equipment Description <u>12 DD CLG WTR PMP</u>	
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>12 DD C</u>	LWP
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdow SWEL. The space below each of the following questions may be used to rec findings. Additional space is provided at the end of this checklist for docume	n of an item of equipment on the ord the results of judgments and enting other comments.
Anchorage	
1. Is the anchorage configuration verification required (i.e., is the item of of the 50% of SWEL items requiring such verification)?	one 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□
SWEs noted that water was on all of the bolts and the base plate. Water source was not evident. There was slight bolt corrosion noted but was deemed acceptable.	,
4. Is the anchorage free of visible cracks in the concrete near the anchor	rs? Y⊠ N□ U□ N/A□
<ol> <li>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.)</li> </ol>	Y⊠ N□ U□ N/A□
Anchorage verification was performed using the SQUG SEWs. Anchorage consists of twelve 3/4" diameter "cast in place" bolts.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YN NO UO

) 1

Ì

\_

\_

<sup>&</sup>lt;sup>1</sup>Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 5
Seismic Walkdown Checklist (SWC)	Status: Y🛛 N🗌 U
Equipment ID No. <u>145-392</u> Equip. Class <sup>1</sup> (06) Vertical Pumps	
Equipment Description <u>12 DD CLG WTR PMP</u>	
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□
<u>Comments (</u> Additional pages may be added as necessary)	
Evaluated by: Bruce Lory Bruce M. Jong	Date: 10-24-12
	Date: 10 - 25-12

,

## SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

.

Seismic Walkdown Checklist (SWC)
Equipment ID No. <u>158-011</u> Equip. Class <sup>1</sup> (00) Other
Equipment Description <u>11 CLG WTR STRNR</u>
Location: Bldg. SSCN Floor El. 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 Y⊠ N□ of the 50% of SWEL items requiring such verification)?
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□
<ol> <li>Is the anchorage free of corrosion that is more than mild surface</li> <li>Y⊠ N□ U□ N/A□ oxidation?</li> </ol>
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \square U \square N/A \square$
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ul>
SQUG SEWs were used for anchorage verification. The anchorage consists of four 7/8" diameter "cast in place" bolts.
<ul> <li>6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ul>

,

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 8
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>158-011</u> Equip. Class <sup>1</sup> (00) Other	
Equipment Description <u>11 CLG WTR STRNR</u>	
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?	YM NI UI
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	
Comments (Additional pages may be added as necessary)	
A conduit clamp was found loose with its nut missing. The nut was found clamp on the floor. The solenoid valve nearby and the adjacent conduit o tight. Therefore, the SWEs judged the loose conduit clamp as not an adv	d underneath the conduit clamp on the other side is verse seismic condition.
Evaluated by: Bruce Lory Brune M. Lory	Date: 10-22-12

-

#### SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY INFORMATION WITHHOLD FROM PUBL	LIC-DISCLOSURE
	Sheet 1 of 7
	Status: Y□ N⊠ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>174-031</u> Equip. Class <sup>1</sup> (10) Air Handlers	
Equipment Description 15 SWGR RM UNIT CLR	· · · · · · · · · · · · · · · · · · ·
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>BUS 15 SW</u>	G
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of the space is provided at the end of the space space.	an item of equipment on the the results of judgments and ng 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□
The SWEs checked and confirmed that the cooler is connected to the structural steel via four 1/2" diameter threaded rods as per drawing NF-121067. The SWEs cannot see the ceiling anchorage.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.
	Sheet 2 of 7
Seismic Walkdown Checklist (SWC)	Status: Y□ N⊠ U□
Equipment ID No. 174-031 Equip Class (10) Air Handlers	
Equipment Description 15 SWGR BM UNIT CLB	
Equipment Description <u>10 OWGATAM OWT OLT</u>	· · · · · · · · · · · · · · · · · · ·
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 drain line was noted to have limited flexibility because it runs from the drip pan and straight into the safety related block wall number 26. The SWEs judge this to be acceptable based on the structural framing that holds the cooler in the air.	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y NX U
The insulation for the 15 SWGR RM unit cooler return line is touching an adjacent 4" diameter conduit. This location is between the unit cooler and the wall.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
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□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Dileep Cherlopalle c.v. Dileep Kumar Reddy	Date: _10-25-12_
Bruce M. Lory Bune 24. Long	Date: 10-25-12

4

-PROPRIETARY INFORMATION ---- WITHHOLD -FROM -PUBLIC DISCLOSURE -

	Sheet 1 of 8
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>174-162</u> Equip. Class <sup>1</sup> (10) Air Handlers	1994 - J Charles Martin Martin Martin Carlos and San
Equipment Description <u>TRN A EVENT MON RM WEST UNIT CLR</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>TRNA EVE</u>	NT MON
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	f an item of equipment on the the results of judgments and ng 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? Rods are slightly bent due to contact with conduit above. This is not a structural support issue.	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?	YX ND UD

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	TNEODMATION		FDOM	DIDITC	DICCLOCIDE
TROTREPTART	THIORITION	MITIUDD	TROFF	TODDIC-	-DIOCHODOKE-

Sheet 2 of 8 Status: YX N U Seismic Walkdown Checklist (SWC) Equipment ID No. <u>174-162</u> \_ Equip. Class<sup>1</sup> (10) Air Handlers Equipment Description TRN A EVENT MON RM WEST UNIT CLR Interaction Effects 7. Are soft targets free from impact by nearby equipment or structures? YX NO UO N/AO The lateral frame provides lateral stiffness so little displacement ensues. 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, YX NI U N/A and masonry block walls not likely to collapse onto the equipment? Check if block wall north of H6 column (behind cooler) is seismically designed (no label). Later discussion with plant engineering confirms that the block wall is seismic Category 1 designed, so comment is resolved and no seismic concern exists. 9. Do attached lines have adequate flexibility to avoid damage? YX NO UO N/AO Supply and return lines span approximately 10' vertically. There is no seismic concern. YX ND UD 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? A lighting fixture will collide with the drip pan or lateral frame but it is not a seismic hazard to the cooler. **Other Adverse Conditions** 11. Have you looked for and found no other seismic conditions that could YX NO UO adversely affect the safety functions of the equipment? The drip pan hardware is all in place. <u>Comments</u> (Additional pages may be added as necessary) Evaluated by: Walter Djordjevic Date: Bruce M. Lory

The remaining pages are withheld from public disclosure.

.

	- PROPRIETARY INFORMATION	WITHHOLD-FROM-PUBLI	C DISCLOSURE
			Sheet 1 of
Salar	nia Walkdown Chocklist (SWO)		Status: Y⊠ N□
Seisi	nic walkdown Checklist (SWC)		
Equip	ment ID No. <u>1ASG1</u> Equip. <u>Cabine</u>	Class' <u>(20) Instrumentation ar</u> ets	nd Control Panels and
Equip	ment Description Safeguard Relay Rack 1A	<u>SG1</u>	
Locat	ion: Bldg. <u>AUX</u> Floor El.	Room, Area <u>RELAY</u>	
Manu	facturer, Model, Etc. (optional but recommer	1ded)	
Instru	actions for Completing Checklist		
This c SWEI findin	hecklist may be used to document the results L. The space below each of the following que gs. Additional space is provided at the end of	of the Seismic Walkdown of a stions may be used to record the f this checklist for documenting	in item of equipment or ne results of judgments g other comments.
<u>Anch</u>	orage		
1	. Is the anchorage configuration verification a of the 50% of SWEL items requiring such v	required (i.e., is the item one verification)?	Y□ N⊠
2	. Is the anchorage free of bent, broken, missi	ng or loose hardware?	Y⊠ N□ U□ N/A□
3.	. Is the anchorage free of corrosion that is mo oxidation?	ore than mild surface	Y⊠ N⊡ U⊡ N/A⊡
4.	Is the anchorage free of visible cracks in the	e concrete near the anchors?	Y⊠ N⊡ U⊡ N/A⊡
5	. Is the anchorage configuration consistent w	ith plant documentation?	
5.	(Note: This question only applies if the iten which an anchorage configuration verificati	a is one of the 50% for ion is required.)	

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY_INFORMATION WITHHOLD_FROM_PUBL	IC DISCLOSURE
	Sheet 2 of 7
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>1ASG1</u> Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description Safeguard Relay Rack 1ASG1	<u></u>
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?	YX ND UD
The cabinet internal components were inspected for any loose or missing mounting hardware, and neither condition was found. A spare, unused terminal block was noted to be missing one terminal screw (not mounting screw)	
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Bruce M. Lory Brue M. Jorg	Date: 10-18-12
Dileep Cherlopalle C.V. Dileep Kunner Reddy-	10-19-12

- -----

.

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY-INFORMATIONWITHHOLD FROM-PUB	LIC-DISCLOSURE-
	Sheet 1 of 5 Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>1LT-762</u> Equip. Class <sup>1</sup> (18) Instruments on H	Racks
Equipment Description <u>12 RX VSL HEAD FULL RNG TRN B D/P XMTR</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>EAST</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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?	YX NI UI

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUI	BLIC DISCLOSURE
	Sheet 2 of 5 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>1LT-762</u> Equip. Class <sup>1</sup> (18) Instruments on F	Racks
Equipment Description <u>12 RX VSL HEAD FULL RNG TRN B D/P XMTR</u>	
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□
The "S" hooks for the lighting fixtures are closed. They are not a seismic concern.	
9. Do attached lines have adequate flexibility to avoid damage?	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YN NO UO
One of the washers used for mounting is rusty, but this 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□
Nothing anomalous was observed.	
Comments (Additional pages may be added as necessary)	
Evaluated by: Walter Diordjevic	Date:/0/25/12
Dennis Zercher Drynich	11-22-2012
· · · · ·	

e e e

-PROPRIETARY-INFORMATIONWITHHOLD-FROM-PUB	JIC DISCLOSURE
	Sheet 1 of 2
	Status: Y N U
Seismic walkdown Checklist (SWC)	
Equipment ID No. <u>1LT-763</u> Equip. Class <sup>1</sup> (18) Instruments on F	lacks
Equipment Description <u>12 RX VSL HEAD DYNAMIC RNG TRN B D/P XMTR</u>	an a
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>EAST</u>	<u></u>
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ag 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 NX
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⊟
They are coated. There is no seismic concern.	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	
There are shrinkage cracks, but not through the anchors. It is not a seismic 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⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	IC DISCLOSURE
Sciencie Walkdown Chacklist (SWO)	Sheet 2 of 2 Status: Y⊠ N□ U□
	<b>.</b> .
Equipment ID No. <u>121-763</u> Equip. Class' (18) Instruments on F	lacks
Equipment Description <u>12 HX V3L HEAD DINAMIC ANG TAN B D/F XMTA</u>	
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□
The lighting fixture "S" hooks are closed and are not a seismic concern.	
9. Do attached lines have adequate flexibility to avoid damage?	
10. Deceder the characteristic interaction and relations is achieved from	
of potentially adverse seismic interaction effects?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
Nothing anomalous was found.	
Comments (Additional pages may be added as necessary)	
Evaluated by: Walter Djordjevic	Date: 10/25/12
Dennis Zercher On Culm	10-22-2012

	IC-DISCLOSURE
	Sheet 1 of 5
Sejemic Walkdown Checklist (SWC)	Status: Y⊠ N∐ U∐
Equipment ID No. <u>1LT-920</u> Equip. Class <sup>1</sup> (18) Instruments on F	lacks
Equipment Description <u>11 RWST LVL XMTR</u>	·····
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>11/12 SI Pur</u>	np
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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?	YM NO UO

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 5
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N∐ U∟
Equipment ID No. <u>1LT-920</u> Equip. Class <sup>1</sup> (18) Instruments on	Racks
Equipment Description <u>11 RWST LVL XMTR</u>	
Interaction Effects	,. , , <u></u>
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?	
The flex conduit loop and tubing have an adequate number of bends for flexibility.	r
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?	YN ND UD
The SWE's noted some vertical grating that was used for access at one time. The level transmitter is in the zone of influence, but the grating is seismically anchored and is therefore acceptable.	
Comments (Additional pages may be added as necessary)	
There is a light fixture directly above the transmitter. The SWEs cannot are closed. Confirmation would require the use of a tall ladder or sc is.	t confirm whether the "S" hook affolding. It is acceptable as it
Evaluated by: Dileep Cherlopalle C.V. Dileep Kumer Reddy	Date: 10 - 2.6-12_

•

Bruce M. Lory	Rune M. In	Date:	10-24-12

- PROPRIETARY INFORMATION WITHHOLD FROM PUBLI	C DISCLOSURE
	Sheet 1 of 7
	Status: Y N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>1LT-921</u> Equip. Class <sup>1</sup> (18) Instruments on R	acks
Equipment Description <u>11 RWST LVL XMTR</u>	······································
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>11/12 SI PUN</u>	1PS
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record t findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the he results of judgments and g 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.) SQUG SEWs were referenced for anchorage verification.	Y⊠ N□ U□ N/A□
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N⊟ U⊟

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 7 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>1LT-921</u> Equip. Class <sup>1</sup> (18) Instruments on F	Racks
Equipment Description <u>11 RWST LVL XMTR</u>	
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?	YM ND UD
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. Jory	Date: <u>10-18-12</u>
	10-18-12

-PROPRIETARY INFORMATION	WITHHOLD-FROM-POBLIC	2 DISCLOSURE
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>1NR3</u>	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description NIS RACK III (BL)	J) 1NR3	
Location: Bldg. <u>AUX</u> Floor El.	Room, Area CNTRL RM	
Manufacturer, Model, Etc. (optional but re	commended)	
<b>Instructions for Completing Checklist</b> This checklist may be used to document th SWEL. The space below each of the follow findings. Additional space is provided at th	e results of the Seismic Walkdown of ving questions may be used to record to the end of this checklist for documenting	an item of equipment on the the results of judgments and g other comments.
Anchorage		
1. Is the anchorage configuration verified of the 50% of SWEL items requiring	fication required (i.e., is the item one g such verification)?	Y□ N⊠
2. Is the anchorage free of bent, broke	n, missing or loose hardware?	Y⊠ N□ U□ N/A□
3. Is the anchorage free of corrosion the oxidation?	hat is more than mild surface	Y⊠ N□ U□ N/A□
4. Is the anchorage free of visible crac	ks in the concrete near the anchors?	Y⊠ N⊟ U⊟ N/A⊡
<ol> <li>Is the anchorage configuration cons (Note: This question only applies if which an anchorage configuration y</li> </ol>	istent with plant documentation? The item is one of the 50% for verification is required.)	Y□ N□ U□ N/A⊠
6. Based on the above anchorage eval potentially adverse seismic condition	uations, is the anchorage free of ons?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 6
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>1NR3</u> Equip. Class <sup>1</sup> (20) Instrumentation Cabinets	and Control Panels and
Equipment Description NIS RACK III (BLU) 1NR3	
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?	YM NO UO
Comments (Additional pages may be added as necessary)	
Evaluated by: Bruce M. Lory Bruce M. Joy	_ Date: _//~0/-/2_
Dileep Cherlopalle C-V. Dileep Kumar Reddy	11-1-12

**. . . . . . . . . . . . . . . . .** . . . . .

	Sheet 1 of 4
Seismic Walkdown Checklist (SWC)	Status: Y N N
Equipment ID No. <u>1PT-469</u> Equip. Class <sup>1</sup> (18) Instruments on I	Racks
Equipment Description 11 STM GEN LOOP A (CHNNL II-WHI) P XMTR	
Location: Bldg. AUX Floor El. Room, Area SOUTH EAS	ST
Manufacturer, Model, Etc. (optional but recommended)	· · · · · · · · · · · · · · · · · · ·
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenti	f an item of equipment on the the results of judgments and ng 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□
<ol> <li>Is the anchorage free of bent, broken, missing or loose hardware?</li> <li>It is mounted on a panel with four 1/4" diameter concrete expansion anchors.</li> </ol>	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 anchorage is clean and coated.	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y⊠ N□ U□ N/A□
<ul> <li>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.)</li> </ul>	
Drawing 92L370-2 was used for anchorage verification. It does not specify an anchor size. 1/4" anchors are typical detail for single instrument mounting.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	

WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC-DISCLOSURE -
Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N□ U□
Equipment ID No. <u>1PT-469</u> Equip. Class <sup>1</sup> (18) Instruments on F	Racks
Equipment Description <u>11 STM GEN LOOP A (CHNNL II-WHI) P XMTR</u>	
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⊡ Ư⊡ 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?	YM NO UO
<u>Comments</u> (Additional pages may be added as necessary)	
	· · · · ·
Evaluated by: Wally Diordjevic	Date: 11/5/12
Kyle Kriesel hy Kuteet	Date: 10,25,12

PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE
Sheet 1 of 4
Status: YX N U
Seismic Walkdown Checklist (SWC)
Equipment ID No. <u>1PT-479</u> Equip. Class <sup>1</sup> (18) Instruments on Racks
Equipment Description 12 STM GEN LOOP B (CHNNL IV-YEL) P XMTR
Location: Bldg. AUX Floor El. Room, Area NORTH 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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
It is anchored by four 1/4" diameter concrete expansion anchors. Pressure transmitter is mounted on a steel panel.
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 Y⊠ N□ U□ N/A□ oxidation?
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N $\square$ U $\square$ N/A $\square$
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ul>
Drawing 92L 370-3 was used for anchorage verification. Anchor size is not specified on drawing, but 1/4" anchors are typical detail for single instrument mounting.
6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?

ł

<sup>\*</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N□ U□
Equipment ID No. 1PT-479 Equip. Class' (18) Instruments on F	lacks
Equipment Description <u>12 STM GEN LOOP B (CHNNL IV-YEL) P XMTR</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
The "S" hooks on light fixtures are closed, so there is no selsmic concern.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	
All welded steel piping is above with seismic restraints. There is not an issue.	
9. Do attached lines have adequate flexibility to avoid damage?	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YMNDUD
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Wally Diordievic</u>	Date: <u>11-7-2012</u> Date: <u>11,6,12</u>

. . .

-PROPRIETARY-INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

. . .

•

. ۰

- PROPRIETARY INFORMATION -WITHHOLD FROM PUBLE	<del>IC-DISCLOSURE \</del> Sheet 1 of 11
	Status: Y N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>B-1</u> Equip. Class <sup>1</sup> (20) Instrumentation and <u>Cabinets</u>	nd Control Panels and
Equipment Description <u>CONTROL PANEL B-1</u>	
Location: Bldg. TURB Floor El. Room, Area CNTRL 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 a SWEL. The space below each of the following questions may be used to record the findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the ne results of judgments and g 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⊡
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	DNWITHHOLD FROM PUBL	C-DISCLOSURE
		Sheet 2 of 11 Status: VX N II
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>B-1</u>	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description <u>CONTROL PANE</u>	L B-1	
interaction Effects		
7. Are soft targets free from impact by	v nearby equipment or structures?	Y⊠ N⊡ U⊡ N/A⊡
8. Are overhead equipment, distribution and masonry block walls not likely	on systems, ceiling tiles and lighting, to collapse onto the equipment?	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate fle	xibility to avoid damage?	Y⊠ N□ U□ N/A□
10. Based on the above seismic interact of potentially adverse seismic intera	tion evaluations, is equipment free action effects?	Y⊠ N□ U□
Other Adverse Conditions		
11. Have you looked for and found no adversely affect the safety functions	other seismic conditions that could s of the equipment?	YM NO UO
Comments (Additional pages may be added a	as necessary)	
Evaluated by: <u>Bruce M. Lory</u>	- M. Long	Date: 10-19-12
Dileep Cherlopalle	Dilopoku war Redd.	10 - 19-12

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE -
Sheet 1 of 18
Status: Y N U
Seismic Walkdown Checklist (SWC)
Equipment ID No. <u>B15 LOGIC-2</u> Equip. Class <sup>1</sup> (20) Instrumentation and Control Panels and Cabinets
Equipment Description BUS 15 LOGIC RELAY CAB 2
Location: Bldg. <i>TURB</i> Floor El. Room, Area <i>BUS 15 SWG</i>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□
One anchor bolt is missing out of the four anchors. Anchorage was verified against the SQUG SEWS which described the anchorage as three 1/2" diameter anchor bolts with one bolt missing. SWEs confirmed one anchor bolt was missing.
3. Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \boxtimes U \boxtimes N/A \boxtimes$
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ul>
6. Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

~ <del>PROPRIETARY INFORMATION ~ WITHHOLD FROM</del> PUP	BLIC-DISCLOSURE
	Sheet 2 of 18
Seismic Walkdown Checklist (SWC)	Status: Y□ N⊠ U□
Equipment ID No. <u>B15 LOGIC-2</u> Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description BUS 15 LOGIC RELAY CAB 2	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N∐ U∐ N/AL
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□
A light fixture is touching the electrical conduits feeding the Bus 15 Logic Relay cabinet 2, which contains essential relays.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
9. Do attached lines have adequate flexibility to avoid damage?	YX NO UO N/AO
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	Y NX 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?	YX NO UO
Cabinet internals were inspected and no loose or missing hardware for mounting internal components were found.	
Comments (Additional pages may be added as necessary)	
1. Foreign material was found inside the cabinet at the bottom (one screen insulation).	ew and a piece of wire
WR 83773 has been initiated to remove the foreign material inside the c	abinet.
2. Foreign material was found under the cabinet between Relay cabinet plant personnel.	t 1 and 2. It was removed by
Evaluated by: <u>Dileep Cherlopalle C-V. Dileep kumer Pedd.</u>	Date: 10-29-12.
Bruce M. Lory Brance H. Jon	11-01-12

÷

-PROPRIEIARE-INFORMATIONWITHHOLD FROM POD	DIC DISCLOSORE	
	Sheet 1 of 4	
Solomia Walkdown Cheeldist (SMO)	Status: YX N U	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>CV-31059</u> Equip. Class <sup>1</sup> (07) Fluid Operated Valves		
Equipment Description <u>11 TD AFW PMP TRIP THROTTLE CV</u>		
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>11 AFWP</u>		
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?	YX ND UD	

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 4	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>CV-31059</u> Equip. Class <sup>1</sup> (07) Fluid Operated Valves		
Equipment Description <u>11 TD AFW PMP TRIP THROTTLE CV</u>	, 	
Interaction Effects	· · ·	
7. Are soft targets free from impact by nearby equipment or structures? The light fixture has an open "S" hook. The remaining chain will ensure the equipment is not impacted, so there is no seismic concern.	Y⊠ N□ U□ N/A□	
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.		
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□	
The sprinkler piping is rod hung and is not a seismic issue.		
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?		
Comments (Additional pages may be added as necessary)		
A		
Evaluated by: Walter Dordevic	Date: 11-5-12	
Kyle Kriesel My Church	Date: 10.25.12	

- PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE -

\_\_\_\_
Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC DISCLOSURE	
	Sheet 1 of 3	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. CV-31153 Equip. Class <sup>1</sup> (07) Fluid-Operated V	Valves	
Equipment Description <u>11 TD AFW PMP RECIRC/L-O CLG CV</u>		
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>11 AFWP</u>		
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?		
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y NU UNAX	
4. Is the anchorage free of visible cracks in the concrete near the 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?	YM ND UD	

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUB	LIC DISCLOSURE
Solomia Walkdown Chaokdist (SWO)	Sheet 2 of 3 Status: Y⊠ N□ U□
	., .
Equipment ID No. <u>CV-31153</u> Equip. Class <sup>1</sup> (07) Fluid-Operated	Valves
Equipment Description <u>111D APVI PMP HECHC/L-O CLG CV</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
The light fixture has no open "S" hooks.	
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 N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
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 Diordievic	Date: 11-5-12
Kyle Kriesel ly huse	Date: 10,25,12

•

~PROPRIETARY_INFORMATION~~~WITHHOLD-FROM~PUBL	EC DISCLOSURE Sheet 1 of 4
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>CV-31423</u> Equip. Class <sup>1</sup> (07) Fluid Operated V	alves
Equipment Description <u>12 DD CLG WTR JCKT CLR OUTL CV</u>	and the second
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>12 DD CLW</u>	>
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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□

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	IC-DISCLOSURE
	Sheet 2 of 4
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>CV-31423</u> Equip. Class <sup>1</sup> (07) Fluid Operated V	alves
Equipment Description <u>12 DD CLG WTR JCKT CLR OUTL CV</u>	·······
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⊡
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Bruce M. Lory Prime M. Jong	Date: $10 - 19 - 12$

•

-PROPRIETARY-INFORMATIONWITHHOLD-FROM POB	LIC DISCLOSORE
	Sheet 1 of 5
Sciencia Mallalana Charleliat (SMC)	Status: Y N U
Equipment ID No. <u>CV-31505</u> Equip. Class <sup>1</sup> (07) Fluid-Operated	Valves
Equipment Description <u>D1 DSL GEN CLG W1H SPLY CV</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown o SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for document	f an item of equipment on the the results of judgments and ng 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⊠
There is a pipe support on valve body to Emergency Diesel Generator skid.	
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?	YM ND UD

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC DISCLOSURE
	Sheet 2 of 5 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>CV-31505</u> Equip. Class <sup>1</sup> (07) Fluid-Operated V	alves
Equipment Description <u>D1 DSL GEN CLG WTR SPLY CV</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
The overhead lighting fixture "S" hooks are closed.	
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□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Wally Djordjevic	Date: 10/25/12

.

PROPRIETARY INFORMATION WITHHOLD FROM PUBL	IC DISCLOSURE
	Sheet 1 of 9
eismic Walkdown Checklist (SWC)	
Equipment ID No. <u>CV-31652</u> Equip. Class <sup>1</sup> (07) Fluid-Operated	Valves
Equipment Description <u>11 CLG WTR STRNR BCKWSH CV</u>	
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>SOUTH</u>	
Aanufacturer, Model, Etc. (optional but recommended)	
nstructions for Completing Checklist 'his checklist may be used to document the results of the Seismic Walkdown o WEL. The space below each of the following questions may be used to record indings. Additional space is provided at the end of this checklist for document	f an item of equipment on the I the results of judgments and ing other comments.
Inchorage	
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⊠
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	IC-DISCLOSURE
	Sheet 2 of 9
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>CV-31652</u> Equip. Class <sup>1</sup> (07) Fluid-Operated	Valves
Equipment Description <u>11 CLG WTR STRNR BCKWSH CV</u>	
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	
<ul> <li>11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?</li> <li>The conduit feeding power to CV-31652 has one conduit clamp that is missing a nut. SWE's judge existing conduit configuration is still seismically adequate and acceptable. However, it is recommended that the nut is put back on.</li> </ul>	Y⊠ N□ U□
CAP 1353581 has been initiated to evaluate this observation. Additionally, WR83924 has been initated to address this observation.	

<u>Comments</u> (Additional pages may be added as necessary)

SWEs noted that CV-31652 F/R and CV-31653 F/R are mounted to a single vertical unistrut with just one machine screw. The machine screws are not fully threaded into their associated nuts. Instead they are approximately half threaded into the nuts. SWEs judge current configuration as acceptable for seismic loading, but full thread engagement is needed.

CAP 1353368 has been initiated to evaluate this observation. Additonally, WR 83878 has been initiated to address this observation.

Evaluated by: Bruce Lory	Bruce M. Low	_ Date:	10-22-12
Dileep Cherlopalle	C-U-DileopKumarReddy		10-26-12

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

-IKOIKIEIAKI-INFORMATIONWIIMMOLD-IKOM-FOD	JIC DIDCLODURE	
	Sheet 1 of 4	
Sciencia Malkdown Chacklist (SMC)	Status: YX N U	
	<i>.</i> .	
Equipment ID No. <u>CV-31953</u> Equip. Classi (07) Fluid-Operated	Valves	
Equipment Description <u>D1 DSL GEN AIR START CV A</u>		
Location: Bldg. <u>IURB</u> Floor El. Room, Area <u>EDG D-1</u>		
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 UNAX	
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y N U V/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?		

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

· · · ·	Sheet 2 of 4
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N∐ U∐
Equipment ID No. <u>CV-31953</u> Equip. Class <sup>1</sup> (07) Fluid-Operated V	/alves
Equipment Description D1 DSL GEN AIR START CV A	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	YX NO UO N/AO
Soft targets are protected by a mesh guard anchored to skid walkway and floor checkered plate.	
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?	YM NO UO
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YX NO UO
An attached flex line touches the air operator but there is no opportunity for differential movement.	
Comments (Additional pages may be added as necessary)	
Evaluated by: Walter Djordjevic	Date: 11-5-12
Kyle Kriesel /4/ Katar	Date: 10.26.12

TROPRESENT INFORMATION WITHHOLD FROM FODD.	Sheet 1 of 6
	Status: Y□ N⊠ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>CV-39401</u> Equip. Class <sup>1</sup> (07) Fluid-Operated V	alves
Equipment Description <u>11/13 FCU CLG WTR SUPPLY CV</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>NORTH</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and ag 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⊠
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠
The valve is line mounted.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

\_\_\_\_\_

- - -

- - -

\_\_\_\_

\_\_\_\_

\_\_\_

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seisn	nic Walkdown Checklist (SWC)	Status: Y□ N⊠
Equin	ment ID No. CV-39401 Equin Classi (07) Eluid Operated V	lalvas
Equip	ment ID No. <u>OVER 11/13 FCU CLG WTB SUPPLY CV</u>	aives
Equip		
Intera	ction Effects	
7.	Are soft targets free from impact by nearby equipment or structures?	
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□
	It appears that CV-39401 is in close proximity to or touching some rigid conduits. The conduits feed power to CV-39404 (12 FCU CHLD WATER SPPLY CV). During a seismic event, the valve may come into contact with the conduits.	
	Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
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□
<u>Comm</u>	nents (Additional pages may be added as necessary)	
Evalua	ted by: <u>Dileep Cherlopalle C.V. Dileepkummer Reddy</u>	Date: 10-24-1

.

PROPRIETARY INFORMATION WITHHOLD-FROM-PUBI	JIC-DISCLOSURE
	Sheet 1 of 9
	Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>D-1</u> Equip. Class <sup>1</sup> (20) Instrumentation <u>Cabinets</u>	and Control Panels and
Equipment Description CONTROL PANEL D-1	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>CNTRL RM</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and ng 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□
See SWC for E-1 component for anchorage description. Anchorage verification was performed using SQUG SEWs. The anchorage verification is confirmed.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YX NO UO

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

		Sheet 2 of
		Status: Y⊠ N
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>D-1</u>	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description CONTROL PANEL	<u>D-1</u>	
Interaction Effects		
7. Are soft targets free from impact by	nearby equipment or structures?	
	2	
	· · · ·	
8. Are overhead equipment, distribution	n systems, ceiling tiles and lighting,	
and masonry block walls not likely to	o collapse onto the equipment?	
9. Do attached lines have adequate flex	ibility to avoid damage?	
y.		
10. Based on the above seismic interaction	on evaluations, is equipment free	Y⊠ N□ U□
of potentially adverse seismic interac	ction effects?	
Other Adverse Conditions		
11. Have you looked for and found no of	ther seismic conditions that could	Y⊠ N□ U□
adversely affect the safety functions	of the equipment?	
Comments (Additional pages may be added as	pecessary)	
Comments (Additional pages may be added as		
Evaluated by: <u>Bruce Lory Bruce</u>	M. Long	Date: 11-13-12
<b></b>		
Dileep Cherlopalle	lespkungerkeddy	Date: $11 - 9 - 12$

	Sheet 1 of 6		
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□		
Equipment ID No. D1/GEN RLY PNL Equip. Class <sup>1</sup> (20) Instrumentation & Cabinets	and Control Panels and		
Equipment Description D1 DSL GEN RELAY PNL			
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>			
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⊡		
There are four 1/2" 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?	YØNDUN/AD		
Minor cracks were identified in the grout pad. The cracks are not a seismic concern.			
<ol> <li>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.)</li> </ol>	Y⊠ N□ U□ N/A□		
SWEs used SQUG SEWS for anchorage verification.			
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YN ND UD		

WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY INFORMATION

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 6 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>D1/GEN RLY PNL</u> Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description <u>D1 DSL GEN RELAY PNL</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
The "S" hooks for lighting fixtures are closed.	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	YM NO UO N/AO
9. Do attached lines have adequate flexibility to avoid damage?	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YM NO UO
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
The internal components were inspected, and no anomalles were identified.	
Comments (Additional pages may be added as necessary)	
	/
Evaluated by: Walter Djordjevic	Date: 11-5-22
Kyle Kriesel	10,26,12

- PROPRIETARY INFORMATION -- WITHHOLD FROM PUBLIC DISCLOSURE --

.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE-			
	Sheet 1 of 9		
	Status: Y NX U		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. <u>E-1</u> Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and		
Equipment Description <u>CONTROL PANEL E-1</u>			
Location: Bldg. AUX Floor El. Room, Area CNTRL 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 SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ag 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□		
<ol> <li>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.)</li> </ol>	Y⊠ N□ U□ N/A□		
The SWEs referenced the SQUG SWEs for the anchorage verification. Each of the three bays contain six 3/8" diameter bolts (3 on the front side and 3 on the rear side) anchoring the panel to structural steel. The structural steel frame is welded to the steel floor plate using 2" by 1/4" fillet welds on 12" centers.			
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?			
	· .		

:

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)		Sheet 2 of 9 Status: Y□ N⊠ U□
Equipment ID No. <u>E-1</u>	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	nd Control Panels and
Equipment Description <u>CONTROL PANEL</u>	<u>E-1</u>	
Interaction Effects		
7. Are soft targets free from impact by The partition wall next to E-1 is miss connecting the partition wall to the v partition wall seismically qualified in	nearby equipment or structures? ing all six floor bolts. The bolts ertical walls are in place. Is the this configuration?	Y NX U N/A
CAP 1357500 has been issued to tra	ack this issue.	
8. Are overhead equipment, distributio and masonry block walls not likely t	n systems, ceiling tiles and lighting, to collapse onto the equipment?	Y⊠ N□ U□ N/A□
9. Do attached lines have adequate flex	kibility to avoid damage?	Y⊠ N□ U□ N/A□
10. Based on the above seismic interact of potentially adverse seismic intera	ion evaluations, is equipment free ction effects?	Y⊠ N⊟ U⊟
Other Adverse Conditions	· · · · · · · · · · · · · · · · · · ·	
11. Have you looked for and found no c adversely affect the safety functions	other seismic conditions that could of the equipment?	Y⊠ N⊟ U⊟
<u><b>Comments</b></u> (Additional pages may be added a	s necessary)	
Evaluated by: Bruce Lory Bruce	M. Jung	Date: 11-02-12
Dileep Cherlopalle C-V.D	ikepkunarkadhy	Date: <u>11-2-12-</u>

-PROPRIETARY-INFORMATION---WITHHOLD-FROM PUBLIC-DISCLOSURE --

PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	IC DISCLOSURE -		
	Sheet 1 of 15		
	Status: Y□ N⊠ U□		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. <u>EM-B1</u> Equip. Class <sup>1</sup> (20) Instrumentation Cabinets	and Control Panels and		
Equipment Description EVENT MONITORING RACK EM-B1			
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>TRN B EVENT MON</u>			
Manufacturer, Model, Etc. (optional but recommended)			
Instructions for Completing Checklist			
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	Fan item of equipment on the the results of judgments and ng 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□		
The SWEs referenced the SQUG SEWs for anchorage verification.			
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□		

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY INFORMATIO	N WITHHOLD FROM PUBLE	C DISCLOSURE
		Sheet 2 of 15
		Status: Y□ N⊠ U□
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>EM-B1</u>	Equip. Class <sup>1</sup> (20) Instrumentation a Cabinets	and Control Panels and
Equipment Description EVENT MONITOR	RING RACK EM-B1	
Internetion Effects		
Interaction Effects		
7. Are soft targets free from impact by	/ nearby equipment or structures?	YXINLI ULI N/ALI
8. Are overhead equipment, distribution and masonry block walls not likely	on systems, ceiling tiles and lighting, to collapse onto the equipment?	Y⊠ N□ U□ N/A□
The area has restricted space that a ladder to inspect the lighting fixtue concern.	does not allow enough room to use re "S" hooks. This is not a seismic	
9. Do attached lines have adequate fle	xibility to avoid damage?	Y⊠ N□ U□ N/A□
10. Based on the above seismic interact of potentially adverse seismic interact	tion evaluations, is equipment free action effects?	Y⊠ N□ U□
Other Adverse Conditions		
11. Have you looked for and found no adversely affect the safety function	other seismic conditions that could s of the equipment?	Y NX U
On the inside of EM-B1 there is a s from the left vertical support. The re are present.	ingle screw and washer missing emaining two screws and washers	
Site engineering reviewed this conc seismic concern. See appendix F fo However, WR 83653 has been initia	dition, and determined it is not a or disposition of this observation. ated to correct the condition.	
Comments (Additional pages may be added a	is necessary)	
Evaluated by: Dileep Cherlopalle C-V	· Dile opKumer Reddy	Date: 10-26-12
Bruce Lory Brune	M. Jong	Date: 10-26-12
	V	

i

ł

PROPRIETARY-INFORMATIONWITHHOLD FROM PUBL	IC-DISCLOSURE		
	Sheet 1 of 14		
	Status: Y NX U		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. <u>MCC 1T2/XFM SW</u> Equip. Class <sup>1</sup> (04) Transformers			
Equipment Description <u>MCC 1T2 XFR SW</u>			
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>122 CRM CH</u>	ILR		
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□		

-----

÷

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBL	HC DISCLOSURE
	Sheet 2 of 14
Saismia Walkdown Chacklist (SWC)	Status: Y□ N⊠ U□
Equipment ID No. <u>MCC 1T2/XFM SW</u> Equip. Class <sup>1</sup> (04) Transformers	
Equipment Description <u>MCC 1T2 XFR SW</u>	
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? Regarding the light fixture, both of the bottom "S" hooks are open. During a seismic event the light fixture may fall on to the lever of the MCC IT2 transfer switch and may trip the equipment. The light fixture is 52" above the disconnect which appears to be right underneath the light fixture. The power cord is hard wired to the ceiling and appears to have some slack.	Y□ N⊠ U□ N/A□
CAP 1352001 has been initiated to evaluate the open "S" hooks identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address this observation.	
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?	YX ND UD
<u>Comments</u> (Additional pages may be added as necessary)	

There is foreign material behind the transfer switch 1, near the wall (an O ring that is red in color). It is a housekeeping issue, and not a seismic concern.

CAP 1352321 has been initiated to address the foreign material identified during these walkdowns.

#### -PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE -

Sheet 3 of 14

Status: Y N U

## Seismic Walkdown Checklist (SWC)

Equipment ID No. MCC 1T2/XFM SW Equip. Class<sup>1</sup> (04) Transformers

Equipment Description MCC 1T2 XFR SW

Evaluated by: Dileep Cherlopalle C. V. Dileep Kunner Reddy Date: 11-15-12

Bran M. Jong 11-15-12 Bruce M. Lory

.

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

-FROFRIETARI INFORMATION - WITHHOLD FROM POBL.	IC DISCLOSURE		
	Sheet 1 of 4		
Colomia Mallalaum Chashlist (DMO)	Status: Y⊠ N□ U□		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. <u>MV-32017</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves		
Equipment Description LOOP B MN STM TO 11 TD AFWP MV			
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>EAST</u>			
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 NX		
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?	Yo no uo 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?			

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.
PROPRIETARY -- INFORMATION -- WITHHOLD -- FROM -- PUBLIC -- DISCLOSURE --

Sheet 2 of 4 tatus:Y⊠N⊡ U⊡

Seismic Walkdown Checklist (SWC)	Status: YX N U
Equipment ID No. MV-32017 Equip. Class <sup>3</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description LOOP B MN STM TO 11 TD AFWP MV	
Interaction Effects	······
7. Are soft targets free from impact by nearby equipment or structures? The rod support for the main steam isolation valve is within 1"of the handwheel. However, the restraints prevent sufficient axial movement to close the gap. It is not a seismic concern.	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? A small line supplying power to the motor valve is in contact with the conduit, but it does not pose a credible seismic concern.	YX NI UI N/AI
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: <u>Walter Djordjevic</u>	Date: 10/25/12 10-17-2012

~

Seismic Walkdown Checklist (SWC)
Equipment ID No. MV-32025 Equip. Class <sup>1</sup> (08) Motor-Operated and Solenoid-Operated Valves
Equipment Description <u>11 TD AFW PMP SUCT CL SPLY MV</u>
Location: Bldg, <u>TURB</u> Floor El. Room, Area <u>11 AFWP</u>
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 Y□ N⊠ of the 50% of SWEL items requiring such verification)?
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N V N/A
3. Is the anchorage free of corrosion that is more than mild surface Y□ N□ U□ N/A⊠ oxidation?
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y $\square$ N $\square$ U $\square$ N/A
5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
6. Based on the above anchorage evaluations, is the anchorage free of YX NI UI potentially adverse seismic conditions?

-PROPRIETARY INFORMATION ---WITHHOLD FROM --- PUBLIC DISCLOSURE-

<sup>&</sup>lt;sup>4</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARYINFORMATIONWITHHOLD-FROM -PUB	LIC-DISCLOSURE
Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N∏ U∏
Equipment ID No. MV-32025 Equip. Class <sup>1</sup> (08)Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>11 TD AFW PMP SUCT CL SPLY MV</u>	
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)	
Å	
Evaluated by: Walter Diordievic	Date: <u>11-5-12</u>
Kyle Kriesel Ky/ Huse	Date: 10,25,12

	Sheet 1 of 2		
	Status: YX N U		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. <u>MV-32034</u> Equip. Class <sup>1</sup> (08) Motor-Operated a	and Solenoid-Operated Valves		
Equipment Description <u>121 CLWP DSCH HDR MV A</u>			
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>SOUTH</u>			
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 NX		
2. Is the anchorage free of bent, broken, missing or loose hardware?			
3. Is the anchorage free of corrosion that is more than mild surface	Y□ N□ U□ N/A⊠		
oxidation?			
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y□ N□ U□ N/A⊠		
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO		

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC DISCLOSURE
	Sheet 2 of 2 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>MV-32034</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>121 CLWP DSCH HDR MV A</u>	
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 files and lighting, and masonry block walls not likely to collapse onto the equipment?	Y⊠ N⊡ ULI N/ALI
The fire protection piping with mechanical couples is far enough away to not pose an interaction hazard.	
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?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could	Y⊠ N□ U□
adversely affect the safety functions of the equipment?	
Comments (Additional pages may be added as necessary)	
Evaluated by: Walter Diordievic	Date: 10/25/12
Dennis Zercher Om Juch	10-22-2012

PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC-DISCLOSURE
	Sheet 1 of 5
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>MV-32077</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description SUMP B TO 11 RHR PMP TRN A (OUTSIDE) MV	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>11/12 CNTM</u>	SPRY 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 SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ang 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?	
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□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Sheet 2 of 5 Status: Y⊠ N□ U□
Equipment ID No. <u>MV-32077</u> Equip. Class <sup>1</sup>	(08) Motor-Operated and Solenoid-Operated Valves
Equipment Description SUMP B TO 11 RHR PMP TRN.	A (OUTSIDE) MV
Interaction Effects	
7. Are soft targets free from impact by nearby equipt	nent or structures? $Y \boxtimes N \square U \square N/A \square$
The light fixtures have closed "S" hooks.	
8. Are overhead equipment, distribution systems, cei and masonry block walls not likely to collapse ont	ling tiles and lighting, $Y \boxtimes N \square U \square N/A \square$ o the equipment?
The scaffolding is erected properly. It is tagged at	nd inspected.
9. Do attached lines have adequate flexibility to avoi	d damage? Y⊠ N□ U□ N/A□
10. Based on the above seismic interaction evaluations of potentially adverse seismic interaction effects?	s, is equipment free Y⊠ N□ U□
Other Adverse Conditions	
11. Have you looked for and found no other seismic co adversely affect the safety functions of the equipm	onditions that could YX N U
Comments (Additional pages may be added as necessary)	
	1.1.11/1
Evaluated by: <u>Wally Djordjevic</u>	Date: 11-5-12
Kyle Kriesel by huese	Date: 10,25,12

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE -

\_\_\_\_

	LIC DISCLOSURE	
	Sheet 1 of 3	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. MV-32133 Equip, Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves	
Equipment Description 11 FC CLG WTR RTRN ISOL MV B		
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>EAST</u>		
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 NX	
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 V 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?		

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	BLIC DISCLOSURE
	Sheet 2 of 3 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. MV-32133 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>11 FC CLG WTR RTRN ISOL MV B</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
The rod hanger near the operator is restrained by the floor penetration. It will not migrate towards the valve motor operator.	
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	
adversely affect the safety functions of the equipment?	
Comments (Additional pages may be added as necessary)	
Evaluated by: Wally Diordievic	Date: <u>11-5-12</u>
Kyle Kriesel ful twee	Date: 10,25,12

,

	IC DISCLOSURE -
	Sheet 1 of 6
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□
Equipment ID No. MV-32145 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description 11 CC HX CLG WTR INLET MV	n <u>Thinn 1999 - 1999 - 1999 - 1999 - 1999</u> - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999
Location: Bldg AUX Eloor El Room Area 11/21 CC P	 UMP
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown o SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenti	f an item of equipment on the the results of judgments and ng 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⊠
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

		Sheet 2 of 6
Seismi	ic Walkdown Checklist (SWC)	Status: Y⊠ N∐ UL
Equipm	ent ID No. <u>MV-32145</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valv
Equipm	tent Description <u>11 CC HX CLG WTR INLET MV</u>	-
 Interac	tion 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□
	A light fixture in the area has open "S" hook. MV-32145 is not in its zone of influence, therefore no adverse seismic interaction concern.	
i	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
<b>9</b> . ]	Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
10. I	Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YX ND UD
Other A	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□
Comme	e <b>nts</b> (Additional pages may be added as necessary)	
— Evaluat	ed by: Bruce M. Lory Bruce M. Joy	Date: 10-21-12

Dileep Cherlopalle	C.V. pilep Kumar Redder	Date:	10-23-12-

- PROPRIETARY INFORMATION WITHHOLD FROM PUB	LIC-DISCLOSURE-
	Sheet 1 of 4 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>MV-32238</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>11 AFW TO 11 SG MV</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>11 AFWP</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ng 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?	
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 V N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N□ U□
Equipment ID No. MV-32238 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>11 AFW TO 11 SG MV</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
A light fixture south of the valve has an open "S" hook, but it is not a seismic hazard.	· ·
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
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⊟
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Walter Djordjevic	Date: 11-5-12
Kyle Kriesel / Kush	Date: 10:25.12

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

\_\_\_\_\_

TROTATIONARY INTERNATION WITHOUD TROAT	Diff Diffelobold
	Sheet 1 of 3
Seismic Walkdown Checklist (SWC)	Status: YX N U
Equipment ID No. MV-32242 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>11/12 AFW TO 11 SG ISOL MV</u>	
Location: Bldg. <u>AUX</u> Floor EL. Room, Area <u>DEMIN RMV</u>	<u>/L</u>
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ang 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 NX
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 V N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y N V 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 V N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YX NI UI

CIIDE

am

POPP

<sup>&</sup>lt;sup>2</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATIONWITHHOLD FROM PU	BLIC DISCLOSURE
	Sheet 2 of 3 Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. MV-32242 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description 11/12 AFW TO 11 SG ISOL MV	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y <u>X N</u> 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?	
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Wally Diordjevic</u>	Date: 11/14/2012 Date: 11.9.12

~ PROPRIETARY INFORMATION - WITT	HOLD FROM PUBLIC DISCLOSURE
	Sheet 1 of 4
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>MV-32380</u> Equip. Cla	ss1_(08) Motor-Operated and Solenoid-Operated Valves
Equipment Description 14 FC CLG WTR INLT ISOL M	1V
Location: Bldg. <u>AUX</u> Floor El. R	oom, Area <u>EAST</u>
Manufacturer, Model, Etc. (optional but recommended	)
Instructions for Completing Checklist	
This checklist may be used to document the results of t SWEL. The space below each of the following question findings. Additional space is provided at the end of this	he Seismic Walkdown of an item of equipment on the ns may be used to record the results of judgments and s checklist for documenting other comments.
Anchorage	
1. Is the anchorage configuration verification requ of the 50% of SWEL items requiring such verif	ired (i.e., is the item one $Y \square N \boxtimes$ ication)?
2. Is the anchorage free of bent, broken, missing o	r loose hardware? Y□ N□ U□ N/A⊠
<ol> <li>Is the anchorage free of corrosion that is more t oxidation?</li> </ol>	han mild surface Y□ N□ U□ N/A⊠
4. Is the anchorage free of visible cracks in the con	ncrete near the anchors? $Y \square N \square U \square N/A \boxtimes$
5. Is the anchorage configuration consistent with p (Note: This question only applies if the item is o which an anchorage configuration verification i	plant documentation? Y N U V N/A vote N
6. Based on the above anchorage evaluations, is the potentially adverse seismic conditions?	e anchorage free of Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC	C-DISCLOSURE
Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: Y⊠ N□ U□
Equipment ID No. <u>MV-32380</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>14 FC CLG WTR INLT ISOL MV</u>	
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⊟
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Bruce Lory Bruce M- Jorg	Date: 10-17-12
Dileep Cherlopalle c.v. Dileep Kumer Reddy	10-18-12

-PROPRIETARI TINFORMATION WEIMOLD FROM FUD	
	Sheet 1 of 4
Saismic Walkdown Chacklist (SWC)	Status: YX N U
Equipment ID No. <u>MV-32381</u> Equip. Class <sup>1</sup> (08)Motor-Operated a	and Solenoid-Operated Valves
Equipment Description <u>12 MD AFW PMP DISCH TO 11 SG MV</u>	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>11 AFWP</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and and 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 V 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□
	,

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Sheet 2 of 4 Status: YX N U
Equipment ID No. <u>MV-32381</u> Equip. Class <sup>1</sup> (08)Motor-Operated a	and Solenoid-Operated Valves
Equipment Description <u>12 MD AFW PMP DISCH TO TTSG MV</u>	
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?	
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?	YM NO UO
The valve bodies of MV-32381 and MV-32382 are approximately 1/8" apart and may interact based on piping analysis displacement.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
Fire Protection piping is less than one foot away. It is welded steel and, therefore, acceptable. The fire protection sprinkler is not immediately above MV-32381 and is therefore adjudged acceptable.	

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

Comments (Additional pages may be added as necessary)

PROPRIETARY\_INFORMATION\_\_\_WITHHOLD\_FROM\_PUBLIC\_DISCLOSURE

Sheet 3 of 4 Status:  $Y \boxtimes N \square U \square$ 

### Seismic Walkdown Checklist (SWC)

 Equipment ID No.
 MV-32381
 Equip. Class<sup>1</sup> (08)Motor-Operated and Solenoid-Operated Valves

 Equipment Description
 12 MD AFW PMP DISCH TO 11 SG MV

Evaluated by: <u>Wally Diordiovic</u> <u>Dennis Zercher</u> <u>Dennis Zerche</u>

• .

SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	Status	Sheet 1 of 4
Seismic Walkdown Checklist (SWC)	ourus	
Equipment ID No. PNL 133/XFMR Equip. Class <sup>1</sup> (04) TRANSFORMER	S	
Equipment Description DIST PNL 133 XFMR		
Location: Bldg. TURB Floor El. Room, Area <u>11 AFWP</u>	······	
Manufacturer, Model, Etc. (optional but recommended)		
Instructions for Completing Checklist		
This checklist may be used to document the results of the Seismic Walkdown of a SWEL. The space below each of the following questions may be used to record the findings. Additional space is provided at the end of this checklist for documenting the space of the space is provided at the end of the space space.	an item of e he results o g other con	equipment on the f judgments and iments.
Anchorage		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y□ N⊠	
2. Is the anchorage free of bent, broken, missing or loose hardware? The six shell concrete expansion anchors are secure. The two vertical struts and the one horizontal strut to F9 column were all visible.	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 DND	U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□	U[]

WITHHOLD FROM PUBLIC DISCLOSURE

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION

-PROPRIETARY-INFORMATIONWITHHOLD FROM PUBL	JC DISCLOSURE
	Sheet 2 of 3 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. PNL 133/XFMR Equip. Class <sup>1</sup> (04) TRANSFORME	9 <u>5</u>
Equipment Description DIST PNL 133 XFMR	······································
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures? No impact concerns were observed.	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? Welded piping with flanged valves, cable trays, and conduits are all ductile and seismically acceptable.	Y⊠ N□ U□ N/A□
<ul> <li>Block wall number 8, adjacent to F9, is safety-related.</li> <li>9. Do attached lines have adequate flexibility to avoid damage? The lines are rigidly mounted to column F9.</li> </ul>	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	
<ol> <li>Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? No other seismic conditions were observed.</li> </ol>	Y⊠ N⊟ U⊟
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Welly Diordievic 11/144	Data IN/25/11
Dennis Zercher	10 - 12 - 2012

- PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	<del>C-DISCLOSURE -</del> Sheet 1 of 7
	Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. PNL 136/XFMR Equip. Class <sup>1</sup> (04) Transformers	
Equipment Description DIST PNL 136 XFMR	
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>SOUTH</u>	
Manufacturer, Model, Etc. (optional but recommended)	·
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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 NX
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□
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 7
Salemic Malkdown Chacklist (SMC)	Status: Y🛛 N🗍 I
Equipment ID No. <u>PNL 136/XFMR</u> Equip. Class <sup>1</sup> (04) Transformers	<u> </u>
Equipment Description <u>DIST PNL 136 XFMR</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y□ N□ U□ N/A⊠
The transformer does not contain any soft targets.	
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 that the fire protection piping above the transformers contains one victaulic coupling on a 6" fire protection line. This line is configured as 1" rod hung and it penetrates the nearby wall. Therefore relative angular movement of the coupling is minimal and is not a seismic adverse condition.	
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	<u></u>
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	Y⊠ N□ U□
<u><b>Comments</b></u> (Additional pages may be added as necessary)	
Evaluated by: Dileep Cherlopalle C.V.Dileep Kumer Reddy	_ Date:10 - 2.5 - 1

.

-

PROPRIETARY INFORMATION - WITHHOLD FROM PUBL	<del>IC DISCLOSURE</del>
	Sheet 1 of 11
Seismic Walkdown Checklist (SWC)	Status: YX N U
Equipment ID No. PNL 191 Equip. Class <sup>1</sup> (14)Distribution Panel	's
Equipment Description DC DISTRIBUTION PANEL 191	<u> </u>
Leasting Dide AVV Eleas Eleast Deserver Area 11 Dia/87	
Location: Bidg. <u>AOA</u> Floor EL. Room, Area <u>Travis</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
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□
<ol> <li>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.)</li> </ol>	Y⊠ N□ U□ N/A□
Anchorage was verified using DC -80Y151, Appendix II6, Attachment 2, which shows four 1/2" diameter wedge anchors.	
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YX NI UI

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.
- PROPRIETARY INFORMATIO	N WITHHOLD FROM PUBLI	C-DISCLOSURE Sheet 2 of 11
		Status: YX N U
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>PNL 191</u>	Equip. Class <sup>1</sup> (14) Distribution Panel	s
Equipment Description <u>DC DISTRIBUTIO</u>	N PANEL 191	
Interaction Effects		
7. Are soft targets free from impact by	nearby equipment or structures?	Y⊠ N⊡ U⊡ N/A⊡
8. Are overhead equipment, distribution and masonry block walls not likely to	on systems, ceiling tiles and lighting, to collapse onto the equipment?	Y⊠ N⊡ U⊡ N/A⊡
9. Do attached lines have adequate flex	xibility to avoid damage?	Y⊠ N□ U□ N/A□
<ol> <li>Based on the above seismic interact of potentially adverse seismic intera</li> </ol>	ion evaluations, is equipment free action effects?	Y⊠ N⊟ U⊟
Other Adverse Conditions		
<ol> <li>Have you looked for and found no c adversely affect the safety functions The cabinet was inspected internally component mounting hardware was</li> </ol>	other seismic conditions that could of the equipment? y and no loose or missing found.	YM NO UO
Comments (Additional pages may be added as	s necessary)	
The cabinet was inspected internally	y and is acceptable.	
Evaluated by: <u>Bruce Lory</u>	M. Joy	Date: 10-24-12
Dileep Cherlopalle <-v. pi	leepkumarkesses	Date: 10-24-12.

-

SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

	Sheet 1 of 4		
	Status: YX N U		
Seismic Walkdown Checklist (SWC)			
Equipment ID No. <u>RS-21-1</u> Equip. Class <sup>1</sup> (07) Fluid-Operated	/alves		
Equipment Description <u>11 SG MS HDR RELIEF</u>			
Location: Bldg, <u>AUX</u> Floor El. Room, Area <u>DEMIN RMVL</u>			
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 NX		
2. Is the anchorage free of bent, broken, missing or loose hardware?			
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 NO UNAM		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO		

\_

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

5

	Sheet 2 of 4 Status: YX N U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>RS-21-1</u> Equip. Class <sup>1</sup> (07) <u>Fluid-Operated</u>	/alves
Equipment Description <u>11 SG MS HDR RELIEF</u>	
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?	YM NO UO
Comments (Additional pages may be added as necessary)	
Evaluated by Mally Diardiaula	Datas 11/14/2012
Kyle Kriesel	Date:

- - PROPRIETARY INFORMATION -- WITHHOLD FROM PUBLIC DISCLOSURE-

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

- PROPRIETARY INFORMATION WITHHOLD FROM PUBL	LIC DISCLOSURE	
	Sheet 1 of 3 Status: YX N U	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. SA-54-3 Equip. Class <sup>1</sup> (07) Fluid Operated V	/alves	
Equipment Description D1 DSL GEN MAIN AIR RCVR RELIEF		
Location: Bldg. TURB Floor El. Room, Area EDG D-1		
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		
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	Y NX	
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?	YM NO UO	

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment,

ass name from Appendix B: Classe

	Sheet 2 of 3
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>SA-54-3</u> Equip. Class <sup>1</sup> (07) Fluid Operated V	laives
Equipment Description D1 DSL GEN MAIN AIR RCVR RELIEF	
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□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Walter Diordievic	Date: 10/25/12
Dennis Zercher Uni (malin	10-17-2012

-PROPRIETARY-INFORMATION --WITHHOLD-FROM PUBLIC DISCLOSURE

.

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

.

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 1 of 3 Status: Y N U

## Seismic Walkdown Checklist (SWC)

Equipment ID No. SV-33186 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description D1 DSL GEN WTR SPLY SV	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of the space is provided at the end of the space space.	f an item of equipment on the the results of judgments and ng 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 NX
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?	YM NO UO

<sup>1</sup>Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUE	BLIC DISCLOSURE
	Sheet 2 of 3 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>SV-33186</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>D1 DSL GEN WTR SPLY SV</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	YX NI UI N/A
Soft targets are protected by the Emergency Diesel Generators checkered plate walkway.	
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?	YX ND UD
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	YM NO UO
Comments (Additional pages may be added as necessary)	
1 that	
Evaluated by: Wally Djordjevic	Date:/0/25/12
Kyle Kriesel by trate	Date: 10,24,12

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	Sheet 1 of 4
	Status: YX N U
eismic Walkdown Checklist (SWC)	
quipment ID No. SV-33242 Equip. Class <sup>1</sup> (08) Motor-Operated	d and Solenoid-Operated Valve
uipment Description D1 DSL GEN AIR START VENT SV	
ocation: Bldg. <u>TURB</u> Floor El. Room, Area <u>EDG D-1</u>	
anufacturer, Model, Etc. (optional but recommended)	
structions for Completing Checklist	
his checklist may be used to document the results of the Seismic Walkdown of VEL. The space below each of the following questions may be used to record dings. Additional space is provided at the end of this checklist for document	of an item of equipment on the d the results of judgments and ing other comments.
ichorage	
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)?</li> </ol>	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⊠
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBL	.IC DISCLOSURE
	Sheet 2 of 4 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. SV-33242 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description D1 DSL GEN AIR START VENT SV	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N□ U□ N/A□
Soft targets are protected beneath emergency diesel generator checkered plate walkway.	
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□
They are mounted on angle iron welded to skid.	
9. Do attached lines have adequate flexibility to avoid damage?	Y⊠ N□ U□ N/A□
Attached lines are rigidly mounted.	
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?	YM NO UO
Comments (Additional pages may be added as necessary)	
Evaluated by: Wally Djordjevic	Date: 10/25/12
Kyle Kriesel My Muse	Date: <u>10,24,12</u>
. · · ·	

.

#### SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	IC DISCLOSURE
	Sheet 1 of 5
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□
Equipment ID No. SV-33243 Equip Class (08) Mater Operated	and Salanaid Operated Values
Equipment Description 11 CLG WTB STBNB BCKWSH SV	and Solenold-Operated Valves
Equipment Description <u>Trock with Strike Beckwartsv</u>	
Location: Bldg. <u>33CN</u> Floor EL Room, Area <u>3001H</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ng 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? Solenoid valve is line mounted as a cantilever using 1/2" tubing by 8" long to an associated actuator. SWE's judge cantilever mounting as rigid and seismically qualified. The tubing connected to solenoid valve is supporting out the other end.	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?	YX NI UI

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Status:	Sheet 2 of 5 Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)		
Equipment ID No. <u>SV-33343</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid	l-Operated Valves
Equipment Description <u>11 CLG WTR STRNR BCKWSH SV</u>		
Interaction Effects		
7. Are soft targets free from impact by nearby equipment or structures?	Y⊠ N⊟ I	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? Good loop on flex conduit.	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
<u>Comments (Additional pages may be added as necessary)</u>		
Evaluated by: Bruce M. Lory Brance M. Jory	_ Date:	10-18-12
		10-18-12

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

- PROPRIETARY-INFORMATION WITHHOLD FROM PUBI	-IC-DISCLOSURE
	Sheet 1 of 3
	Status: Y🛛 N🗌 U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>SV-33694</u> Equip. Class <sup>1</sup> (00) Other	······································
Equipment Description <u>11 SFGDS SCRNHSE ROOF EXHT FAN CD-34137 St</u>	<u> </u>
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <u>SOUTH</u>	
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of equipment on the the results of judgments and ag 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 N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	YLI NLI ULI N/AKI
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y N U V N/A
<ol> <li>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.)</li> </ol>	Yo no uo n/a
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N⊟ U⊟

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATION WITHHOLD FROM PUB:	LIC DISCLOSURE
Sciemic Welldown Checklist (SMC)	Sheet 2 of 3 Status: Y⊠ N□ U□
Equipment ID No. <u>SV-33694</u> Equip. Class <sup>1</sup> (00) Other	
Equipment Description <u>11 SFGDS SCRNHSE ROOF EXHI FAN CD-34137 St</u>	
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? All conduits and lighting are well supported.	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?	YM NO UO
<u>Comments</u> (Additional pages may be added as necessary)	······································
Evaluated by: Walter Djordjevic	Date: 18 /25/12
Dennis Zercher Dangmach	10-17-2012

## SUNSI - WITHHOLD FROM PUBLIC-DISCLOSURE

,

-PROPRIETARY-INFORMATIONWITHHOLD-FROM-PUBL	IC DISCLOSURE
	Sheet 1 of 7
Seismic Walkdown Checklist (SWC)	Status: Y⊠ N□ U□
Equipment ID No. <u>SV-37025</u> Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>122 CONT RM AIR HNDLR OA SPLY CD-34145 SV</u>	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>122 CHM CH</u>	<u>1LR</u>
Manufacturer, Model, Etc. (optional but recommended)	
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documentin	an item of equipment on the the results of judgments and ng 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□
<ol> <li>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.)</li> </ol>	Y□ N□ U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N□ U□

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLI	C DISCLOSURE
Seismic Walkdown Checklist (SWC)	Sheet 2 of 7 Status:Y⊠N□ U□
Equipment ID No. SV-37025 Equip. Class <sup>1</sup> (08) Motor-Operated a	nd Solenoid-Operated Valves
Equipment Description 122 CONT RM AIR HNDLR OA SPLY CD-34145 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□
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□
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: <u>Dileep Cherlopalle C.V. Dileep Kunerkeder</u>	Date: 10-18-12

## SUNSI - WITHHOLD FROM PUBLIC-DISCLOSURE

	Sheet 1 of 5 Status: Y⊠ N□ U□	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. SV-37462 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves	
Equipment Description UNIT 1 TRAIN A CHILL WTR/CLG WTR ISOL SV		
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>12 CHRG P</u>	MP	
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?		
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?	YN NO UO	

WITHHOLD

FROM-

PUBLIC DISCLOSURE

-PROPRIETARY-INFORMATION-

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

Seismic Walkdown Checklist (SWC)	Sheet 2 of 5 Status: Y⊠ N□ U□
Equipment ID No. SV-37462 Equip. Class <sup>1</sup> (08) Motor-Operated	and Solenoid-Operated Valves
Equipment Description <u>UNIT 1 TRAIN A CHILL WTR/CLG WTR ISOL SV</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures?	
The lighting fixture has closed "S" hocks.	
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 are safety related (block wall number 35).	
9. Do attached lines have adequate flexibility to avoid damage?	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?	
It is mounted on a panel and secured by four 1/4" diameter concrete expansion anchors.	
Comments (Additional pages may be added as necessary)	
Evaluated by: Wally Diordievic	Date:
Kyle Kriesel hy Turse	Date: /0,25,/2

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE

## SUNSI--WITHHOLD FROM PUBLIC DISCLOSURE

Seismic Walkdown Checklist (SWC)	Status:	Sheet 1 of 3 Y⊠ N□ U□
Equipment ID No. VC-28-2 Equip. Class <sup>1</sup> (07) Fluid-Operated	/alves	······································
Equipment Description <u>12 CHG PMP DISCH RELIEF</u>		·
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>12 CHRG P</u>	MP	······································
Manufacturer, Model, Etc. (optional but recommended)		
Instructions for Completing Checklist This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting	an item of ea the results of ng other com	quipment on the judgments and ments.
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 <u>□</u> N/A⊠
3. Is the anchorage free of corrosion that is more than mild surface oxidation?	Y N N	U□ N/A⊠
4. Is the anchorage free of visible cracks in the concrete near the anchors?	Y II N II I	
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 N	U□ N/A⊠
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	Y⊠ N⊟ (	

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC-DISCLOSURE

<sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

	Sheet 2 of 3 Status: Y⊠ N□ U□
Seismic Walkdown Checklist (SWC)	
Equipment ID No. VC-28-2 Equip. Class <sup>1</sup> (07) Fluid-Operated W	/alves
Equipment Description <u>12 CHG PMP DISCH RELIEF</u>	
Interaction Effects	
7. Are soft targets free from impact by nearby equipment or structures? Operator is braced from rigid adjacent pump and is ok.	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?	
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?	YM ND UD
<u>Comments</u> (Additional pages may be added as necessary)	
Evaluated by: Wally Diordievic	Date: 1/-5-12
Kyle Kriesel ky Kut	10,25,12

## SUNSI---WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE		
	Sheet 1 of 13	
	Status: Y⊠ N□ U□	
Seismic Walkdown Checklist (SWC)		
Equipment ID No. 035-012 Equip. Class <sup>1</sup> (21) Tanks and Heat	Exchangers	
Equipment Description <u>122 SFP HX</u>		
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>SFP HX 122</u>		
Manufacturer, Model, Etc. (optional but recommended)		
Instructions for Completing Checklist		
This checklist may be used to document the results of the Seismic Walkdown of SWEL. The space below each of the following questions may be used to record findings. Additional space is provided at the end of this checklist for documenting the space of t	an item of equipment on the the results of judgments and ng 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□	
<ol> <li>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.)</li> </ol>	Y⊠ N□ U□ N/A□	
There are four 1" diameter anchor bolts on each leg on a 3.5" by 19" pattern. The drawing referenced is calculation PI-S-044 revision 1.		
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?	YM NO UO	

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE	
	Sheet 2 of 13
	Status: Y⊠ N∏ U∏
Seismic Walkdown Checklist (SWC)	
Equipment ID No. <u>035-012</u> Equip. Class <sup>1</sup> (21) Tanks and Heat I	Exchangers
Equipment Description <u>122 SFP HX</u>	
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?	YN NO UO

-----

.....

-PROPRIETARY INFORMATION -- WITHHOLD FROM PUBLIC DISCLOSURE --

Sheet 3 of 13

Status: YX N U

#### Seismic Walkdown Checklist (SWC)

Equipment ID No. 035-012 Equip. Class<sup>1</sup> (21) Tanks and Heat Exchangers

Equipment Description 122 SFP HX

<u>Comments</u> (Additional pages may be added as necessary)

1. There is a small area with concrete spalling (about 1" by 3" and 1/4" deep). It is not a seismic concern.

Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.

2. There is an abandoned hanger rod in the ceiling (red tape on the tip) above HX.

It is not a seismic concern, but CAP 01352373 has been initiated to evaluate this observation for potential personal safety when assembling scaffolds or performing overhead work. Off of this action request, WR 83651 has been initiated to address this observation.

3. It appears that the valve CC-43-2 has a tie wrap around it for a wheel lock.

Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.

4. There is a bolt missing in a base plate next to MCC 1GA BUS 1.

WR 83744 has been issued to replace the missing nut. CAP 01352717 has been issued to document the discrepancy. The MCC is not safety related and the missing nut will not have any effect on operability or functionality of the adjacent MCC. It also does not pose any safety hazard.

Evaluated by: Dileep Cherlopalle	C.V. Dilee DKumar Redda	Date: $10 - 29 - 12$
Bruce M. Lory	Ra na M. Jan	Date: 11-01-12

## SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE
Sheet 1 of 11
Solemin Wolkdown Chaoklist (SWC)
Seisinic Walkdown Checklist (SWC)
Equipment ID No. 045-102 Equip. Class <sup>1</sup> (05)Horizontal Pumps
Equipment Description <u>122 SFP PMP</u>
Location: Bldg. <u>AUX</u> Floor El. Room, Area <u>SFP 2</u>
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
<ol> <li>Is the anchorage configuration verification required (i.e., is the item one Y⊠ N□ of the 50% of SWEL items requiring such verification)?</li> </ol>
<ul> <li>2. Is the anchorage free of bent, broken, missing or loose hardware? Y⊠ N□ U□ N/A□</li> <li>One of the nuts is flush with the anchor bolt. There are no threads projected beyond the nut. The bolt has the full thread engagement, but no extruding threads. The SWEs judge this as acceptable. It is not a</li> </ul>
seismic concern.
<ol> <li>Is the anchorage free of corrosion that is more than mild surface Y⊠ N□ U□ N/A□ oxidation?</li> </ol>
4. Is the anchorage free of visible cracks in the concrete near the anchors? $Y \boxtimes N \square U \square N/A \square$
<ul> <li>5. Is the anchorage configuration consistent with plant documentation? Y⊠ N□ U□ N/A□ (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)</li> </ul>
Referenced drawing NF-38313-1 for verification. It shows six 3/4" bolts for the pump.
<ol> <li>Based on the above anchorage evaluations, is the anchorage free of Y⊠ N□ U□ potentially adverse seismic conditions?</li> </ol>

<sup>&</sup>lt;sup>1</sup> Enter the equipment class name from Appendix B: Classes of Equipment.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC	-DISCLOSURE
	Sheet 2 of 11
	Status: Y🛛 N🗌 U
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 045-102 Equip. Class <sup>1</sup> (05)Horizontal Pumps	
Equipment Description <u>122 SFP PMP</u>	
Interaction Effects	
<b>The rest of the second second</b>	
7. Are soft targets free from impact by nearby equipment or structures?	
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?	
9. Do attached lines have adequate flexibility to avoid damage?	
10 D 1 d 1 i i i i d die Justice is southward fins	
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?	YXINLIULI
Other Adverse Conditions	
11. Have you looked for and found no other seismic conditions that could	Y⊠ N□ U□
adversely affect the safety functions of the equipment?	
mechanism (cotter pin, bolt, etc.).	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F	
for the disposition of this observation.	
Comments (Additional pages may be added as necessary)	

- 1 The cover between the motor and pump is tied with two steel tie wraps. SWEs questioned whether or not this configuration is acceptable for seismic conditions. After evaluation by site engineering, it was concluded that in a seismic event, the lightweight plastic guard will move with the pump. Since the guard is made of flexible plastic, the force required to break it would be well beyond the force produced by a design basis earthquake. It is not a seismic concern.
- 2. There is boric acid present between the body and cap of the SF pump. This condition was identified previously under CAP 01285680 and evaluated under WR 067821.

	IC DISCLOSURE
	Sheet 3 of 11
	Status: Y🛛 N🗌 U🗌
Seismic Walkdown Checklist (SWC)	
Equipment ID No. 045-102 Equip. Class <sup>1</sup> (05)Horizontal Pumps	
Equipment Description <u>122 SFP PMP</u>	
Evaluated by: Dileep Cherlopalle C.v. Dileep Kumer Reddy	Date:
Bruce Lory Bruch . Joy	11-01-12

ł

I

ł

-----

.
# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

#### -SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

# **C** Area Walk-By Checklists (AWCs)

This appendix provides the Area Walk-By Checklists (AWC) completed as of November 9, 2012 for PINGP. Table C-1 provides the building, elevation, and location of each area as well as a list of SWEL items associated with each area, and whether or not the checklist was marked as "Y" or "N" (the checklist status).

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.

Table C-1: Prairie Island Unit 1 Completed AWCs				
Area Walk- By Designation	Description	Equipment Tag(s)	Comments	Checklist Status (Y/N)
1	AUX 11/12 CNTM SPRAY	MV-32077		Y
h		145-071		
2	AUX 11/12 SI PUMPS	1LT-920		Y
		1LT-921		
3	AUX 11/21 CC PMP	MV-32145		N
		145-042		
4	AUX 12 CHRG PUMP	SV-37462		Y
		VC-28-2		

Pages which contain proprietary SUNSI information have been marked.

Table C-1: Prairie Island Unit 1 Completed AWCs				
Area Walk- By Designation	Description	Equipment Tag(s)	Comments	Checklist Status (Y/N)
5	AUX 12/22 CC PUMP	145-122	12	N
6	AUX NE	CV-39401		Y
7	AUX NE	1PT-479		N
		MV-32380		
8	AUX RELAY	1ASG1		N
9	AUX 11 RWST	PNL 191	·····	N
10	AUX SE	1PT-469		N
11	AUX 112 BUS	112M/XFMR		N
12	AUX 122 BUS	122M/XFMR		Y
13	AUX A E-MON	174-162		N
14	AUX B E-MON	EM-B1		N
		1NR3		
15	AUX CNTRL RM	B-1		
		D-1		
		E-1		
16	AUX DEMIN	MV-32242		N
10		RS-21-1		
17	AUX EAST	1LT-762	i	Y
		1LT-763	leenee eenee eenee	
		MV-32017		

# -SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE--

Table C-1: Prairie Island Unit 1 Completed AWCs				
Area Walk- By Designation	Description	Equipment Tag(s)	Comments	Checklist Status (Y/N)
		MV-32133		
		57304		
		032-292		-
		045-592		-
		053-382		-
18	AUX 122 CRM CHILLER	069-242		- Y
		076-022		-
		MCC 1T2/XFR SW		
		SV-37025		-
		70300		
		053-321		]
19	SSCN 12 DD CLWP	135-101		N
		145-392		
		CV-31423		
20	SSCN SOUTH	22024		Y
		158-011		
		CV-31652		1
		MV-32034		1

## -SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE -

Area Walk- By Designation	Description	Equipment Tag(s)	Comments	Checklist Status (Y/N)
	7, 14	PNL 136/XFMR		
l I		SV-33343		-
		SV-33694	<u></u>	1
		117-111		
		145-201		1
		CV-31059		1
21		CV-31153	<u> </u>	
		MV-32025		-
		MV-32238		-
		MV-32381		
		PNL 133/XFMR		-
22	TURB 12 BATT	12 BATT		Y
		12 BATT CHG		
23	TURB EDG D-1	22017		N
		55000		_
		55400		-
		032-011		4
		032-041		-
		024 011		-

#### -SUNSI-WITHHOLD FROM PUBLIC DISCLOSURE

,

-

Table C-1: Prairie Island Unit 1 Completed AWCs				
Area Walk- By Designation	Description	Equipment Tag(s)	Comments	Checklist Status (Y/N)
		046-031A		
		053-201		
		CV-31505		-
		CV-31953		-
		D1/GEN RLY PNL		
		SA-54-3		
		SV-33186		
		SV-33242		
24	TURB 11 BATT	11 BATT		Y
25	TURB BUS 111	111M/XFMR		N
26	TUBB BUS 15	174-031		N
		B15 LOGIC-2		1
27	TURB ROD DRIV	125MR		Y
28	AUX SFP HX 122	035-012	SWEL 2	N
29	AUX SFP PUMP 122	045-102	SWEL 2	N

## -SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE-

Area V		
	Nalk-Bv Checklist (AWC)	Status: Y N U
Locatio	on: Bldg, AUX Floor El. Room,	Area <sup>1</sup> 11/12 CNTM SPRAY
nstruc	tions for Completing Checklist	
This ch pace b Additic	ecklist may be used to document the results of the Ard elow each of the following questions may be used to r onal space is provided at the end of this checklist for d	ea Walk-By near one or more SWEL items. The record the results of judgments and findings. ocumenting other comments.
1.	Does anchorage of equipment in the area appear to be potentially adverse seismic conditions (if visible with opening cabinets)?	free of YX NU UNAD
2. ]	Does anchorage of equipment in the area appear to be degraded conditions?	free of significant Y⊠ N□ U□ N/A□
3. ] 1 8	Based on a visual inspection from the floor, do the cal raceways and HVAC ducting appear to be free of pote seismic conditions (e.g., condition of supports is adeque conditions of cable trays appear to be inside acceptabl	ole/conduit YX NU UN/AU entially adverse uate and fill e limits)?
	The abandoned hanger near sandbag block out on we evaluated. There is no seismic concern.	əst wall is
4. I i l	Does it appear that the area is free of potentially adver nteractions with other equipment in the area (e.g., cei ighting)?	se seismic spatial YX N UN N/A
1. 1. 1.	The light fixture is disconnected on one side from its s aying on temporary scaffolding. The scaffold prevent from falling on the 11 containment spray pump. There concern with this light fixture.	upport and is s the light fixture a is no seismic
l c	/arlous maintenance activities were occurring during t of the area walkby.	the performance

				Sheet 2 of 5
• • • • •				Status: YX N U
Area V	Valk-By Checklis			
Locatio	on: Bldg. <u>AUX</u>	Floor El.	Room, Area <sup>1</sup> <u>11/12 CNTM</u>	I SPRAY
5.	Does it appear that t interactions that cou	the area is free of pot and cause flooding or	tentially adverse seismic spray in the area?	YX NO UO N/AO
	No fire protection pi	ping was observed i	n the area.	
6.	Does it appear that t interactions that cou	he area is free of pot ld cause a fire in the	entially adverse seismic area?	Y⊠ N⊟ U⊟ N/A⊟
7. ] i	Does it appear that t nteractions associat equipment, and temp shielding)?	he area is free of pot ed with housekeepin porary installations (	entially adverse seismic g practices, storage of portable e.g., scaffolding, lead	Y⊠ N⊟ U⊟ N/A⊟
é	Various maintenanc area walkby.  No sei	e activities were occ ismlc issues were ide	urring when performing the entified.	
8. I	Have you looked for adversely affect the	and found no other safety functions of the	seismic conditions that could ne equipment in the area?	YM NO UO
	The unrestrained ch noted that it would b off. No action is req	ain falls are not a se e good housekeepin uired.	ismic concern, but the SWEs g to keep the chain falls tied	
Comme	nts (Additional pages	may be added as nece	essary)	<u></u>
7	The drip pan beneat	h the 12 containmen	t spray pump is missing a bolt o	n the south side.
r r	CAP 01353388 has equest,  WR 83885	been initiated to eva has been initiated to	luate this observation. In additic address this observation.	on to writing an action
7	There is an abandon	ed pipe hanger neal	r the north wall, but it is not a sei	ismic concern.
Evaluate	d by: <u>Wally Djordje</u>	vic	Walt	Date: 11/5/12
	Kyle Kriesel	M/ Husse	24	Date: 10,25.12

.

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION WITHHOLD FRO	M PUBLIC DISCLOSURE
	Sheet 1 of 14
Area Wolk By Chacklist (AWC)	Status: Y N U
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>11</u>	/12 SI PUMPS
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	e results of judgments and findings.
Additional space is provided at the end of this checklist for document	ing other comments.
1. Does anchorage of equipment in the area appear to be free of	Y⊠ N□ U□ N/A□
potentially adverse seismic conditions (if visible without neces	ssarily
openning exemicisy.	
The pressure gauge (18351) wall bracket next to electric pane	IJB
A1813 in 12 SI pump room is missing one out of four bolts. If appears to be sheared off. The SWEs judge that the remaining	ne bolt a three
bolts possess sufficient seismic capacity to hold the gauge in p	place
during a design basis seismic event	l de sus is
Site engineering has reviewed this observation and concluded no seismic concern. Please refer to the table contained in Apl	ntnere is Dendix F
for the disposition of this observation.	
2. Does anchorage of equipment in the area appear to be free of s	ignificant Y⊠ N□ U□ N/A□
degraded conditions?	
3. Based on a visual inspection from the floor, do the cable/cond	uit $Y \boxtimes N \square U \square N/A \square$
raceways and HVAC ducting appear to be free of potentially a	dverse fill
conditions of cable trays appear to be inside acceptable limits)	?
4. Does it appear that the area is free of potentially adverse seism	nic spatial Y⊠ N□ U□ N/A□
lighting)?	s anu
5. Does it appear that the area is free of potentially adverse seism	ic Y⊠ N□ U□ N/A□
interactions that could cause flooding or spray in the area?	

-----

<sup>&</sup>lt;sup>1</sup> 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.

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLI	C-DISCLOSURE Sheet 2 of 14
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>11/12 SI PUI</u>	MPS
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□
<ol> <li>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)?</li> <li>The valve turn nut, which is not part of the present equipment, was found behind 1160 Barton pressure gauge wall bracket. Plant personnel removed this foreign material.</li> <li>An oil can was found supported from unistrut. SWEs judged this configuration as acceptable.</li> </ol>	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□
<ul> <li><u>Comments</u> (Additional pages may be added as necessary)</li> <li>1. There were 3 plastic barrels tied with a rope to a 6" SS pipe next to 1 verified that this is acceptable to tie them to this pipe.</li> </ul>	1RWST. It needs to be
Site engineering has reviewed this observation and concluded there is no refer to the table contained in Appendix F for the disposition of this obser	o seismic concern. Please rvation.
2. A flow meter is chained to a 4" line in the ceiling approximately 15' ab pump at the divider wall next to valve SI-20-69. The seismic loads for and this configuration is seismically acceptable.	ove the 12 safety injection r this piping are evaluated,
Evaluated by: Bruce Lory Brune M. Jong	Date: <u>//-0/-12</u>
Dileep Cherlopalle C.V.Di leep Kumer Reddy	Date: <u>10 - 30 - 12 -</u>

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY INFORMATION WITHHOLD FROM PUBL	IC DISCLOSURE
	Sheet 1 of 15
	Status: Y NX U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>11/21 CC PL</u>	JMP
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near or space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other c	e or more SWEL items. The judgments and findings. omments.
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□
It appears that CS-19543 is not anchored to the wall. There are four external holes in the bracket for fasteners but no fasteners are present.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
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□

<sup>&</sup>lt;sup>1</sup> 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.

#### PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE~

Sheet 2 of 15

Status: Y N V

# Area Walk-By Checklist (AWC)

Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>11/21 CC PL</u>	IMP
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□
Two drums are present under the component cooling heat exchanger to collect leak off. The drums are poorly tied off by rope to a small copper drain line for the 11 component cooling pump unit cooler.	
CAP 01353280 has been initiated to evaluate this observation. In addition to writing the action request, WR 83853 has been initiated to address the observation.	
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
One of the two floor brackets for the unistrut that supports the component cooling motor power cables appears to be bent and the anchor is loose. There is a tygon tube wedged under the corner.	
CAP 1353327 has been initiated to evaluate this observation. In addition to writing the action request, WR 83865 has been initiated to address the observation.	

<u>Comments</u> (Additional pages may be added as necessary)

-PROPRIETARY-	INFORMATION	WITHHOLD FROM-	PUBLIC DIS	SCLOSURE
				Sheet 3 of 15
			Stat	us: Y NX U
Area Walk-By Checklis	t (AWC)			
Location: Bldg. <u>AUX</u>	Floor El.	Room, Area <sup>1</sup> <u>11/21</u>	CC PUMP	
Evaluated by: Bruce Lory	Brune M.	fory	Date: _	11-01-12
Dileep Cherl	opalle c.v. Dile.	pKumar Reddy		10-29-12

.

•

.

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

·

	Sheet 1 of 4
	Status: YX NUU
	, 
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>12 CHRG PL</u>	JMP
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near on space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other ca	e or more SWEL items. The judgments and findings. comments.
1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	YX NO UO NAO
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□
Block wall number 19 is safety related and is not a seismic concern.	
The lighting fixtures in the area have open "S" hooks but these are not deemed a seismic hazard.	
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
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□
<ul><li>5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?</li><li>No fire protection piping is observed.</li></ul>	Y⊠ N□ U□ N/A□

WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION

<sup>&</sup>lt;sup>1</sup> 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.

Sheet 2 of 4 Status: YX NU U Area Walk-By Checklist (AWC) Room, Area1 12 CHRG PUMP Location: Bldg. AUX Floor El. YX NO UO N/AO 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? 7. Does it appear that the area is free of potentially adverse seismic Y⊠ N□ U□ N/A□ interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Radiation signs are not anchored, but have a wide base. Also, a wrench was found on a step ladder in the area. Neither of these items are a seismic concern, as they are away from equipment. Additionally, the chiller in the area has missing bolts on the shroud. WR 84671 has been initiated to address this observation on the chiller. 8. Have you looked for and found no other seismic conditions that could YX ND UD adversely affect the safety functions of the equipment in the area? There are some abandoned wall supports but they are not a seismic concern. Comments (Additional pages may be added as necessary) Date: Evaluated by: Wally Diordievic 1 hur 10,30,12 Date:

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

Kyle Kriesel

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY-INFORMATIONWITHHOLD-FROM-PUBL	IC DISCLOSURE
	Status: V NX II
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>12/22 CC PU</u>	IMP
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near or space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other c	e or more SWEL items. The judgments and findings. omments.
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□
The 22 component cooling pump motor unit cooler is supported by rod hangers from the ceiling. This is located near the 22 component cooling pump, six feet above the 695' floor. This unit cooler is close to the rigging I-beam on the one side and the 4" component cooling line on the other side. Seismic movement may cause the unit cooler to bump into the I-Beam and the component cooling line. The drain line from the unit cooler may break as well.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
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□

ł

<sup>&</sup>lt;sup>1</sup> 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.

-PROPRIETARY-INFORMATION WITHHOLD FROM-PUBLE	IC DISCLOSURE
	Sheet 2 of 6
	Status: Y NX U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>12/22 CC Pl</u>	JMP
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□
A ladder is stored underneath the 22 component cooling heat exchanger in an unapproved storage location. It is not a seismic interaction issue, but may be a housekeeping concern. The ladder has a note which states "Staged for Ops to access mez. deck, do not remove."	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	YX NO UO

<u>Comments</u> (Additional pages may be added as necessary)

A top cover plate wingnut is missing from the 2RE-39 radiation monitor. There is also a loose screw on the side door cover. The monitor is resting on the floor near the wall, and is located between the 22 component cooling pump and the stairs to the upper level.

Site engineering evaluated this observation and concluded that the radiation monitor is not safety related. WR 83571 was initiated to replace the wingnut and tighten the loose screw. CAP 01352076 was initiated to document the observation.

Evaluated by: Bruce M. Lory	Brune M. Jany	Date: _	11-01-12
Dileep Cherlopalle	C.V. Dilepkumer Reddy	_ Date: _	10-29-12.

Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	202220 2120200000
	Sheet 1 of 7
	Status: YX N U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>NOR</u>	TH EAST
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By space below each of the following questions may be used to record the re Additional space is provided at the end of this checklist for documenting	near one or more SWEL items. The esults of judgments and findings. other comments.
1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessar opening cabinets)?	Y⊠ N⊡ U⊡ N/A⊡ rily
2. Does anchorage of equipment in the area appear to be free of sign degraded conditions?	nificant 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 adves 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□ erse I
<ul> <li>4. Does it appear that the area is free of potentially adverse seismic s interactions with other equipment in the area (e.g., ceiling tiles an lighting)?</li> <li>1. The auxiliary building special vent zone boundary line hanger r in contact with component cooling line at hanger location 1-CCH-The hanger rod can flex during a seismic event, so there are no s concerns.</li> </ul>	spatial Y N N U N/A ad rod is 185. seismic
2. The light fixture above the "VFD" cabinets for 11 and 13 charg pumps is close (roughly 1" gap) to the conduits running into the to the VFDs.	ning op of
Site engineering has reviewed this observation and concluded the no seismic concern. Please refer to the table contained in Appen	ere is ndix F

í

<sup>&</sup>lt;sup>1</sup> 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.

#### \_PROPRIETARY\_INFORMATION \_\_\_WITHHOLD\_FROM\_PUBLIC-DISCLOSURE \_\_\_\_

Sheet 2 of 7

Status: YX N U

# Area Walk-By Checklist (AWC)

Locat	on: Bldg. <u>AUX</u> Floor El.	Room, Area <sup>1</sup> NORTH EAST
5.	Does it appear that the area is free of potentia interactions that could cause flooding or spra	Ily adverse seismic Y⊠ N□ U□ N/A□ y in the area?
6.	Does it appear that the area is free of potentia interactions that could cause a fire in the area	lly adverse seismic Y⊠ N□ U□ N/A□ ?
7.	Does it appear that the area is free of potentia interactions associated with housekeeping pr equipment, and temporary installations (e.g., shielding)?	Ily adverse seismic YX NU UNA actices, storage of portable scaffolding, lead
	1. Duct tape needs to be removed from the s discussed in question 4.	pecial vent zone line
	The foreign material on the special vent line and has no impact on the equipment. CAP 1 document this observation.	s a housekeeping issue 352391 was initiated to
	2. There are two abandoned hanger rods ab cooling line with hanger rod 1-RHRH-385 net	ove the component ar MCC1K BUS 2.
	Site engineering evaluated the two abandone concluded there were no seismic concerns. and WR 83712 were initiated to remove the l safety reasons during scaffold construction o	ed hangers rods and However, CAP 01352549 hanger rods for personnel r overhead work.
8.	Have you looked for and found no other seise adversely affect the safety functions of the ec	nic conditions that could $Y \boxtimes N \square U \square$ uipment in the area?
	An RP monitor table is next to the wall with it close to any safety related equipment and is action is required.	s wheels locked. It is not thus acceptable. No

<u>Comments</u> (Additional pages may be added as necessary)

PROPRIETARY INFORMATION W	ITHHOLD FROM PUBLIC DISCLOSURE
	Sheet 3 of 7
	Status: Y N U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El.	Room, Area <sup>1</sup> NORTH EAST
Evaluated by: <u>Dilepp Cherlopalle C-U-Deleo</u> pt	<u>kumarReday</u> Date: <u>10-26-12</u>
Bruce Lory Bune M.	Jong 10-23-12

## SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

alk-By Chec								
aik-dy chec	klict / A\M/	-)				St	atus: Y[	] n⊠ u[
		-						
: Bldg. <u>AUX</u>	Flo	or El.	R	oom, Area	a <sup>1</sup> <u>NORTH E</u>	ASI		
ons for Com	pleting Ch	ecklist						
klist may be t ow each of th al space is pro	used to doc e following ovided at the	ument the re questions n e end of this	esults of t nay be us checklist	he Area W ed to reco t for docur	alk-By near rd the results nenting othe	one or mo of judgmo r comment	ore SWEI ents and t ts.	items. The findings.
oes anchorage otentially adve pening cabine	e of equipm erse seismic ts)?	ent in the ar conditions	ea appea (if visible	r to be free e without r	e of necessarily	YX		N/A
oes anchorage graded condi	e of equipm tions?	ent in the ar	ea appea	r to be free	e of significa	nt Y⊠ 1	NI) U	N/A
ased on a visu ceways and H ismic condition anditions of ca	al inspectic IVAC ducti ons (e.g., co able trays aj	on from the t ng appear to ondition of s opear to be i	floor, do b be free o upports is nside acc	the cable/o of potentia s adequate eptable lin	conduit Ily adverse and fill nits)?	Y⊠ 1	ND UD	N/A 🗌
oes it appear t teractions wit ghting)?	that the area h other equ	t is free of p ipment in th	otentially le area (e.	v adverse s .g., ceiling	eismic spatia tiles and	al Y⊠ I		N/A
	klist may be to ow each of the al space is pro- pose anchorage otentially adve being cabine opes anchorage ograded condi- ased on a visu ceways and H ismic conditions of ca- poses it appear to teractions wit shting)?	klist may be used to doct ow each of the following al space is provided at the oes anchorage of equipm otentially adverse seismic bening cabinets)? bes anchorage of equipm agraded conditions? ased on a visual inspection ceways and HVAC ducti ismic conditions (e.g., co anditions of cable trays approximately appear that the areas teractions with other equiphting)?	klist may be used to document the re ow each of the following questions n al space is provided at the end of this bes anchorage of equipment in the ar otentially adverse seismic conditions bening cabinets)? bes anchorage of equipment in the ar ograded conditions? ased on a visual inspection from the ceways and HVAC ducting appear to ismic conditions (e.g., condition of s inditions of cable trays appear to be is pess it appear that the area is free of p teractions with other equipment in the shing)?	klist may be used to document the results of t ow each of the following questions may be us al space is provided at the end of this checklist pess anchorage of equipment in the area appear otentially adverse seismic conditions (if visible beening cabinets)? the end of this checklist period conditions? ased on a visual inspection from the floor, do ceways and HVAC ducting appear to be free ismic conditions (e.g., condition of supports i anditions of cable trays appear to be inside acc pess it appear that the area is free of potentially teractions with other equipment in the area (e.g., thing)?	klist may be used to document the results of the Area W ow each of the following questions may be used to reco al space is provided at the end of this checklist for docum oes anchorage of equipment in the area appear to be free trentially adverse seismic conditions (if visible without the ening cabinets)? Dees anchorage of equipment in the area appear to be free graded conditions? ased on a visual inspection from the floor, do the cable/of ceways and HVAC ducting appear to be free of potentia ismic conditions (e.g., condition of supports is adequate inditions of cable trays appear to be inside acceptable line potential the area is free of potentially adverse s teractions with other equipment in the area (e.g., ceiling phting)?	klist may be used to document the results of the Area Walk-By near ow each of the following questions may be used to record the results al space is provided at the end of this checklist for documenting other opes anchorage of equipment in the area appear to be free of thetnially adverse seismic conditions (if visible without necessarily being cabinets)? bes anchorage of equipment in the area appear to be free of significan- graded conditions? ased on a visual inspection from the floor, do the cable/conduit ceways and HVAC ducting appear to be free of potentially adverse ismic conditions (e.g., condition of supports is adequate and fill inditions of cable trays appear to be inside acceptable limits)? bes it appear that the area is free of potentially adverse seismic spatia teractions with other equipment in the area (e.g., ceiling tiles and phting)?	with the observe of the second the	As to completing offective klist may be used to document the results of the Area Walk-By near one or more SWEI bow each of the following questions may be used to record the results of judgments and fall al space is provided at the end of this checklist for documenting other comments. Does anchorage of equipment in the area appear to be free of $Y \boxtimes N \sqcup U \sqcup$ tentially adverse seismic conditions (if visible without necessarily ening cabinets)? Does anchorage of equipment in the area appear to be free of significant $Y \boxtimes N \sqcup U \sqcup$ ased on a visual inspection from the floor, do the cable/conduit ceways and HVAC ducting appear to be free of potentially adverse ismic conditions (e.g., condition of supports is adequate and fill unditions of cable trays appear to be inside acceptable limits)? Does it appear that the area is free of potentially adverse seismic spatial $Y \boxtimes N \sqcup U \sqcup$ teractions with other equipment in the area (e.g., ceiling tiles and phing)?

<sup>&</sup>lt;sup>1</sup> 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.

Area Walk-By Checklis	t (AWC)		Status: Y NX U
Location: Bldg. <u>AUX</u>	Floor El.	Room, Area <sup>1</sup> NOR	TH EAST
5. Does it appear that to interactions that cou	he area is free of pote ild cause flooding or	entially adverse seismic spray in the area?	Y⊠ N□ U□ N/A□
SWEs noted a weld duct, above the higl contact is acceptabl is rod hung.	ed fire protection line n temperature alarm p le since the interaction	(4") in contact with an H anel 1. SWEs judge tha n is ductile and the HVA0	VAC t this C duct
6. Does it appear that t interactions that cou	the area is free of potential design of the second se	entially adverse seismic area?	Y⊠ N□ U□ N/A□
<ol> <li>Does it appear that the interactions associated equipment, and tem shielding)?</li> <li>There were scaffold</li> </ol>	the area is free of pote ted with housekeepin porary installations (o carts within 2" of tou	entially adverse seismic g practices, storage of po e.g., scaffolding, lead ching the MCC 1L, Bus 2	Y□ N⊠ U□ N/A□ rtable 2. The
cart wheels are cho configuration allowe fixed upon discover acceptable orientati	cked but in the wrong d the cart to slide into y. Site personnel cho on.	orientation. The cart the MCC. The condition ocked the wheels in the	n was
CAP 1355467 has b	peen initiated to docu	ment this condition.	
8. Have you looked fo adversely affect the	r and found no other safety functions of th	seismic conditions that c e equipment in the area?	ould Y⊠ N□ U□
Comments (Additional page	s may be added as nece	ssary)	
	·		
Evaluated by: Bruce M. Lor	y Burro	M. Jay	Date: 10-24-1
		1	

- PROPRIETARY INFORMATION	WITHHOLD FROM PUI	BLIC DISCLOSURE
		Sheet 1 of 6
		Status: Y NX U
Area Walk-By Checklist (AWC)		
Location: Bldg. <u>AUX</u> Floor El.	Room, Area <sup>1</sup> <u>RELAY</u>	
Instructions for Completing Checklist		
This checklist may be used to document the result space below each of the following questions may Additional space is provided at the end of this checkline	ts of the Area Walk-By near on be used to record the results of ecklist for documenting other co	e or more SWEL items. The judgments and findings. omments.
1. Does anchorage of equipment in the area a potentially adverse seismic conditions (if opening cabinets)?	appear to be free of visible without necessarily	Y□ N⊠ U□ N/A□
Terminal Box A-1749 (terminal box for hig bolt to wall at the lower right corner. Other therefore SWEs judged that the terminal b the wall and is acceptable.	th flux) is missing an anchor three bolts are in place, box is seismically anchored to	
WR 83891 has been initiated to address	the missing anchor bolt.	
2. Does anchorage of equipment in the area degraded conditions?	appear to be free of significant	YX NO UO N/AO
<ol> <li>Based on a visual inspection from the flor raceways and HVAC ducting appear to be seismic conditions (e.g., condition of supp conditions of cable trays appear to be insi</li> </ol>	or, do the cable/conduit e free of potentially adverse ports is adequate and fill ide acceptable limits)?	Y⊠ N∏ U∏ N/A□
4. Does it appear that the area is free of pote interactions with other equipment in the a lighting)?	entially adverse seismic spatial area (e.g., ceiling tiles and	Y⊠ N□ U□ N/A□

٠

<sup>&</sup>lt;sup>1</sup> 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.

	IC DISCLOSURE
	Sheet 2 of 6
	Status: Y NX U
Area Walk-By Checklist (AWC)	
Location: Bldg. AUX Floor El. Room, Area <sup>1</sup> RELAY	
5 Does it appear that the area is free of potentially adverse saismic	
interactions that could cause flooding or spray in the area?	
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⊡
<u>Comments</u> (Additional pages may be added as necessary)	
SWEs identified the following foreign materials during their walkby:	
1. Foreign material found in the upper right unistrut of terminal box A-174 2. Cigarette butt found (see attached photos).	19.
Plant personnel removed the above foreign material after it was identified	d.
Evaluated by: Bruce M. Lory Bruce M. Joy	Date: 10-21-12
Dileep Cherlopalle C.V. Dileep Kuman Reddy	10-29-12.

٤

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	Sheet I of g
area Walk-By Checklist (AWC)	Status: Y N U
Location: Bldg. AUX Floor El. Room, Area <sup>1</sup> 11 RWST	
nstructions for Completing Checklist	
'his checklist may be used to document the results of the Area Walk-By near o pace below each of the following questions may be used to record the results of additional space is provided at the end of this checklist for documenting other	ne or more SWEL items. The f judgments and findings. comments.
1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?	YX NI UI N/AI
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)?	
There is an abandoned light fixture behind the MCG/J Bus with open "S" hooks.	
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
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_ NØ U_ N/A
1. There are open "S" hooks on a light fixture above the PT-948 panel.	
2. There is also a disconnected light fixture chain near panel 191.	
CAP 1352001 has been initiated to evaluate the open "S" hocks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these	

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

 Sheet 2 of 9

 Status: Y□ N⊠ U□

ocation: Bldg. AUX	Floor El.	Room, Area <sup>1</sup> 11	RWST	
5. Does it appear that interactions that co	the area is free of p uld cause flooding o	ootentially adverse seismi or spray in the area?	c Y⊠N⊟U	0 N/A
The fire protection a seismic issue.	plping is a deluge s	ystem, so the line is dry.	lt is not	
6. Does it appear that interactions that co	¢ Y⊠ N⊟ U	□ N/A□		
Flammable cabinet seismic concern.	t is unanchored but	it will not tip over, so it is	not a	
<ol> <li>Does it appear that interactions associa equipment, and ten shielding)?</li> </ol>	the area is free of p ited with housekeep iporary installations	otentially adverse seismi sing practices, storage of s (e.g., scaffolding, lead	c Y∏ N⊠ U portable	⊡ N/A⊡
Dolleys are stored housekeeping proc on the spot to achie	too close (<12") to t edure requires a 12 eve a 12" spacing.	11 H2 recombination cab 2" offset. The condition w	inet. The as fixed	
8. Have you looked for adversely affect the	or and found no othe safety functions of	er seismic conditions that the equipment in the are	could Y⊠ N□ U a?	
A tool cart was too penetrations. The c	close to the tubing condition was fixed	raceway entering contain on the spot.	ment	
omments (Additional page	es may be added as no	ecessary)	444 <sub>44</sub>	
A crash cart was ne are not safety relate	ear sample lines, bu ed.	it it was not deemed a se	ismic hazard since the	sample lines
Evaluated by: <u>Walter Djord</u>	ljevic	Wiff	Date:	11 / 14/2
Kyle Kriesel	Ky/ R	mese	Date:	30.12

7

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	Sheet 1 of
we welk By Checklist (AWC)	Status: Y NX U
ocation: Bldg. <u>AUX</u> Floor El. <b>Room</b> , Area <sup>1</sup> <u>SOUTHE</u>	457
nstructions for Completing Checklist	
bace below each of the following questions may be used to record the results additional space is provided at the end of this checklist for documenting other	of judgments and findings. 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 NX U N/A
An anchor bolt is missing on pipe support number 1-CCH-311.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
2. Does anchorage of equipment in the area appear to be free of significan degraded conditions?	t Y⊠ N□ U□ N/A□
An anchor is missing on a stanchlon beneath the 121 Loop "A" Main Steam isolation valve drain line.	
CAP 1353371 has been initiated to evaluate this observation. Additonally, WR 83874 has been initiated to address this observation.	
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□
There is an abandoned light fixture in the overhead near pipe support 1-CCH-311. It is unattached and should be removed.	
CAP 1353409 has been initiated to evaluate this observation. Additonally, WR 83892 has been initiated to address this observation.	
CCH-311. It is unattached and should be removed. CCH-311. It is unattached and should be removed. CAP 1353409 has been initiated to evaluate this observation. Additonally, WR 83892 has been initiated to address this observation.	

:

-PROPRIETARY INFORMATION -- WITHHOLD FROM - PUBLIC - DISCLOSURE -----

......

.

Area Walls Bu Checklint			Sheet 2 of 7 Status: Y□ N⊠ U□
Location: Bldg AUX	Floor El	Room Areal SOUTH EA	ST
5. Does it appear that the interactions that could be a set of the	he area is free of potentia ld cause flooding or spray	illy adverse seismic y in the area?	
No fire protection pip	oing was observed.		
6. Does it appear that the interactions that could	he area is free of potentia ld cause a fire in the area	lly adverse seismic ?	Y⊠ N□ U□ N/A□
7. Does it appear that th interactions associate equipment, and temp shielding)?	ne area is free of potentia ed with housekeeping pra porary installations (e.g., t	lly adverse seismic ctices, storage of portable scaffolding, lead	Y⊠ N⊡ U⊡ N/A⊡
8. Have you looked for adversely affect the s	and found no other seisn afety functions of the equ	nic conditions that could uipment in the area?	
<u>Comments (</u> Additional pages	may be added as necessary	)	
		11 444	11/5/12-
Evaluated by: <u>Wally Djordjev</u> <u>Kyle Kriesel</u>	hy tur	2	Date: 10,25,12
The remaining pages are withheld from public disclosure.

\_\_\_\_\_

	Sheet 1 of 3	
Area Walk-By Checklist (AWC)	Status: Y□ N⊠ U□	
Location: Bldg AUX Eloor El Room Area 112 BUS	<u></u>	
Instructions for Completing Checklist		
 This checklist may be used to document the results of the Area Walk-By near on -space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other c	e or more SWEL items. The fjudgments and findings. omments.	
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?</li> </ol>		
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions?		
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□	
There are open "S" hooks on light fixtures. The light fixtures could be a hazard to Bus 112, but not the transformer.		
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.		

, <sup>1</sup>

	Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>112 BUS</u>	
		····
	5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	
	The supply and return line piping is ductile and will not pose a spray down or flooding hazard in 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?	
-	Comments (Additional pages may be added as necessary)	
-	Evaluated by: Wally Djordjevic	Date: 11-7-2012

. . .

. . .

. . . .

	C-DISCLOSURE
	Sheet 1 of 2
Area Walk-By Checklist (AWC)	Status: YX NUU
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>122 BUS</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near one space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other co	e or more SWEL items. The judgments and findings. omments.
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□
The unit cooler in the 122 BUS room has a brace that is attached to the wall with four base plates. One of the plates seems to be bent and there is a 1/4" gap between the plate and the wall.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
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	Y⊠ N□ U□ N/A□
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)?	
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⊡

<sup>&</sup>lt;sup>1</sup> 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.

### PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 2 of 2

Status: YX N U

\* \* \* \* \* \* \*

Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>122 BUS</u>	
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? The unit cooler supply and return lines (hanger number 1-RHRH-656) are unsupported laterally across the entire room. If the line breaks during a seismic event, there are no floor drains in the room and flooding may occur. Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	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□
<ul> <li>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)?</li> <li>A pig tail of a cable was noticed in the ceiling next to the unistrut support. It is not a seismic concern.</li> </ul>	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?	YX NO UO
<u><b>Comments</b></u> (Additional pages may be added as necessary)	
Evaluated by: Dileep Cherlopalle C-V.Dileep Kumar Reddy	Date: <u>11-9-12</u>
Bruce Lory Bruce H. Joy	Date: <u>11-13-12</u>

			Sheet 1 of 5
	Molic D., Observised (A)8(A)		Status: Y N U
AI CA	Walk-by Checklist (AWC)		
Jocat	tion: Bldg. <u>AUX</u> Floor	r El. Room, Area <sup>1</sup> <u>A E-MC</u>	<u>N</u>
Instr	uctions for Completing Check	klist	
fhis c pace Addit	checklist may be used to docun below each of the following q ional space is provided at the e	nent the results of the Area Walk-By no uestions may be used to record the resu end of this checklist for documenting of	ear one or more SWEL items. The alts of judgments and findings. ther comments.
ľ	Does anchorage of equipmen potentially adverse seismic c opening cabinets)?	at in the area appear to be free of onditions (if visible without necessarily	YD NX UD N/AD
	Behind the cabinet RMU2N, battery EL-28 is missing.	one wing nut holding the emergency	
	EL-28 is a non-safety related monitoring room. The event r is within cabinets and would a selsmic event. WR 83724 v	l light. It is located in the train A event monitoring equipment located in this ro not be impacted should the light fall du was initiated to replace the missing nut.	om ring
2.	Does anchorage of equipmen degraded conditions?	t in the area appear to be free of signifi	icant Y⊠ N□ U□ N/A□
3.	Based on a visual inspection raceways and HVAC ducting seismic conditions (e.g., cond conditions of cable trays appe	from the floor, do the cable/conduit appear to be free of potentially advers lition of supports is adequate and fill ear to be inside acceptable limits)?	Y⊠ N□ U□ N/A□ e
4.	Does it appear that the area is interactions with other equiprilighting)?	free of potentially adverse seismic spannent in the area (e.g., ceiling tiles and	atial Y⊠ N□ U□ N/A□
	,		
;		· .	

PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE Sheet 2 of 5 Status: Y N V Area Walk-By Checklist (AWC) Room, Area1 A E-MON \_ Floor El. Location: Bldg. AUX 5. Does it appear that the area is free of potentially adverse seismic YX NO UO N/AO interactions that could cause flooding or spray in the area? The water piping is seismically braced. 6. Does it appear that the area is free of potentially adverse seismic YX NO UNAD interactions that could cause a fire in the area? 7. Does it appear that the area is free of potentially adverse seismic YX NO UO N/AO interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?

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⊡

<u>Comments</u> (Additional pages may be added as necessary)

Evaluated by: Walter Djordjevic	Wet	Date: 11/14/212
Bruce M. Lory Berne	Mr. Jorg	10-24-12

PROPRIETARY-INFORMATION	WITHHOLD-FROM-PUBLI	C DISCLOSURE
		Sheet 1 of 20
		Status: Y NX U
Area Walk-By Checklist (AWC)		
Location: Bldg. <u>AUX</u> Floor El.	Room, Area <sup>1</sup> <u>B E-MON</u>	
Instructions for Completing Checklist		
This checklist may be used to document the result space below each of the following questions may Additional space is provided at the end of this ch	ts of the Area Walk-By near one be used to record the results of ecklist for documenting other co	e or more SWEL items. The judgments and findings.
<ol> <li>Does anchorage of equipment in the area potentially adverse seismic conditions (if opening cabinets)?</li> </ol>	appear to be free of visible without necessarily	Y⊠ N□ U□ N/A□
2. Does anchorage of equipment in the area degraded conditions?	appear to be free of significant	Y⊠ N□ U□ N/A□
3. Based on a visual inspection from the floor raceways and HVAC ducting appear to be seismic conditions (e.g., condition of supp conditions of cable trays appear to be insi	or, do the cable/conduit e free of potentially adverse ports is adequate and fill de acceptable limits)?	Y⊠ N□ U□ N/A□
4. Does it appear that the area is free of pote interactions with other equipment in the a lighting)?	ntially adverse seismic spatial rea (e.g., ceiling tiles and	Y⊠ N□ U□ N/A□
The light fixture hanging from the ceiling i electrical box that is connected to panel 2 the fixture may hit the electrical box.	is about 3" to 6" from an 19. During a seismic event	
Site engineering has reviewed this observed to the term of the disposition of this observation.	vation and concluded there is able contained in Appendix F	

<sup>&</sup>lt;sup>1</sup> 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.

# PROPRIETARY INFORMATION WITHHOLD FROM-PUBLIC DISCLOSURE Sheet 2 of 20 Sheet 2 of 20 Status: Y NX NX Location: Bldg. AUX Floor El. Room, Area<sup>1</sup> BE-MON

.

		······································
5. I i	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□
	If the unit cooler supply and return lines break during a seismic event, it may result in flooding the room. There is no floor drain in the train B event monitoring room. Reference hangers 2-RHRH-453, 2-RHRH-448, 2-RHRH-449, and 2-RHRH-454.	
:   	Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
6. I i	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. I i e s	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. H 2	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□
Comme	ents (Additional pages may be added as necessary)	

Evaluated by: Dileep Cherlopalle	C.V. Dilep Kumon Reddy	Date:
•	- 1	
<u>Bruce M. Lory</u>	Burne M. form	Date: $1/-0(-1^2)$

 $\square$ 

Sheet 1 of 10 Status: Y NX U

Area	Walk-By Checklist (AWC)	
Locati	on: Bldg. AUX Floor Bl. Room, Areas CNTRL RM	· · · · · · · · · · · · · · · · · · ·
Instru This cl space t Additio	ctions for Completing Checklist necklist may be used to document the results of the Area Walk-By near on pelow each of the following questions may be used to record the results of onal space is provided at the end of this checklist for documenting other o	e or more SWEL items. The Judgments and findings. omments.
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□
<b>2.</b>	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⊡ UĽI 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)?	YC NØ UD N/AD
	There are lighting diffusers tied off to the support grid. Unit 1 and Unit 2 "C" panels have a fluorescent light fixture on chains too close (within 1"- 2") to the panel.	
5.	CAP 01362209 has been initiated to evaluate this observation. 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⊡
<b>6</b> .	Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?	Yon no uo nao
<sup>1</sup> If the 1 This sel	com in which the SWEL item is located is very large (e.g., Turbine Hall), the area ected area should be based on judgment, e.g., on the order of about 35 feet from t	selected should be described. he SWEL item.

PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 2 of 10 Status: Y NX U

ocation: Bldg, <u>AUX</u>	Floor EL	Room, Areas ONTRL RM	<u>A</u>
7. Does it appear that the interactions associate equipment, and temp shielding)?	ne area is free of po ed with housekcepi wrary installations	otentially adverse seismic ng praetices, storage of portable (e.g., soaffolding, lead	
1. The trash can nex immediately adjec housekeeping pro	t to the racks R23, cent to the racks, w coodure.	R24, R13, and R14 are which violates the selamic	
Site engineering has no selamic concern. for the disposition of	reviewed this obse Please refer to the this observation.	ərvatlon and concluded thərə is ə tablə containad in Apperidix F	
2. Step ladder adject close to the racks	ant to racks R23, R . The wheels shou	24, R13 and R14 is also too ki bo chocked.	
WR 83584 has been	initiated to address	s this observation.	
3. There were seven In most cases).	al open S-hooks on	light fixtures (nearest the panel	-
CAP 01352001 was 01352001, WR 8355	initiated to evaluate 6 was initiated to a	e this observation. Off of CAP ddress this observation.	
8. Have you looked for adversely affect the s	and found no other	r seismic conditions that could the equipment in the area?	YX NC UD
Unit 1 and Unit 2 "€" position. This is ∎ he	panels have side j iusekeeping issue	panels thet have slid out of and not a seismic concern.	
CAP 01352102 has l addition to writing an address this observa	been initiated to ev action request, Wi tion.	aluate this observation. In R 83579 has been initiated to	
·			

-PROPRIETARY INFORMATION

Sheet 3 of 10 Status: Y N V

Location:	Bldg. AUX	Floor Bl.	Room, Area <sup>1</sup> <u>CNTR</u>	.RM
<u>C</u>	n <b>ments</b> (Additio	onal pages may be adde	ed as necessary)	· · · ·
50	ome desks ere se	cured to the wall. No	ot a selsmic concern.	
1.	The filing cabine main control boa	ts adjacent to the ma ard.	ain control board in both Ur	lt 1 and Unit 2 are close to the
ĊA	AP 1357683 has i	been initiated to evel	uate this observation.	
,2,	A set of drawers	next to the in-core id	ogic selection switch panel	are close to the panel.
Sit ref	te engineering ha Ter to the table co	s reviewed this obse nteined in Appendix .	rvation and concluded then F for the disposition of this	e is no selsmic concern: Please observation.
Э.	The cart adjacer in Unit 1 are clos	l to the Protection S se to the equipment.	ystems III and the cart adja The chain is not used to re	cent to cabinets RPI-1, -2, and -3 estrain the carts.
C/	AP 1357686 has	been initiated to eva	luate this observation	
4.	Firə extinguisher	bracket 224 has a n	otated bracket (into the insi	ulation) and should be repaired.
÷ i	WR 83584 has b	en initiated to addre	ss this observation.	
		<u>.</u>		
Svaluated	by: <u>Walter Diord</u>	ievic	With	Date: 11/14/2012
	. <u>Dennis Zero</u> ł	ior On	1. salar	Date: _//-15-2012
		- $D$	· · · · · · · · · · · · · · · · · · ·	
	-			· · ·
	,			

The remaining pages are withheld from public disclosure.

.

	Sheet 1 of ; Status: Y□ N⊠ U□
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. <b>Room</b> , Area <sup>1</sup> <u>DEMIN</u>	
Instructions for Completing Checklist This checklist may be used to document the results of the Area Walk-By near or space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other c	ne or more SWEL items. The f judgments and findings. comments.
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?</li> </ol>	YX NI UI N/AI
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. A light fixture has an open "S" hook near FWH-67. The fixture is not near any equipment, so no action is needed.	
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
2. There are light fixtures with open "S" hooks near the loop "A" main steam safety header.	
See response above for roll-up CAP written on open "S" hooks.	
3. The piping attached to the unit heater (Steam) has sufficient flexibility to accommodate unit heater displacement, so it is acceptable.	

WITHHOLD

FROM

PUBL

JC

DISCLOSURE

PROPRIETARY INFORMATION

--PROPRIETARY INFORMATION -WITHHOLD FROM PUBLIC DISCLOSURE

Floor EI, Room, Area <sup>1</sup> DEMI	N
t the area is free of potentially adverse seismic ould cause flooding or spray in the area?	YX NO UO N/AO
seismically designed.	
t the area is free of potentially adverse seismic buld cause a fire in the area?	Y NX U N/A
sert on the floor next to the grating is a combus	tible.
been initiated to evaluate this observation. 3876 was initiated to address the observation.	
the area is free of potentially adverse seismic ated with housekeeping practices, storage of pot nporary installations (e.g., scaffolding, lead	Y⊠ N□ U□ N/A□ ntable
of pipe segment with a wire is acceptable. It is	s near
or and found no other seismic conditions that co safety functions of the equipment in the area?	vuld Y N N U
acent to the south wall house cables which are nd out of, a tray that is unrestrained laterally.	
been initiated to evaluate this observation. 8893 was initiated to correct this condition.	
es may be added as necessary)	
evic With	Date: [1   14   20
the twee	Date: 10,50.12
	Floor EI. Room, Area <sup>1</sup> <u>DEM</u> t the area is free of potentially adverse seismic puld cause flooding or spray in the area? seismically designed. the area is free of potentially adverse seismic puld cause a fire in the area? sert on the floor next to the grating is a combust been initiated to evaluate this observation. 3976 was initiated to address the observation. 3976 was initiated to address the observation. due area is free of potentially adverse seismic the of pipe segment with a wire is acceptable. It is or and found no other seismic conditions that co e safety functions of the equipment in the area? iacent to the south wall house cables which are ind out of, a tray that is unrestrained laterally. been initiated to evaluate this observation. 3893 was initiated to correct this condition. 3893 was initiated to accept the condition. 3893 was initiated to accept the condition. 3893 was initiated to accept the condition.

Sheet 2 of 7

Status: Y N U

The remaining pages are withheld from public disclosure.

-PROPRIETARY INFORMATION - WITHHOLD FROM PU	BLIC DISCLOSURE
	Sheet 1 of 10
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. <b>Room</b> , Area <sup>1</sup> <u>EAST</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near on space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other c	e or more SWEL items. The judgments and findings. omments.
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)?	YM NO UO NAO
1. A Greenlee box is greater than 10 feet away from RVLS LT's, so it is not a seismic concern. The wheels are not locked.	
2. The chainfall near 1FT-466 is greater than two feet away, and is not considered a seismic concern, but it should be restrained as a good housekeeping practice.	
<ol> <li>The MCC cubicle C4 door is loose, but a work tag has already been affixed to spare door. No additional review is needed, as it is already in the site process.</li> </ol>	
<ol> <li>There are open "S" hooks on the lighting in the area above MV- 32024. This is not a seismic concern as the lighting will not adversfly effect MV-32024.</li> </ol>	
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been Identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	

<sup>4</sup> 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.

PROPRIETARY INFORMATION FROM

Status: YX N U Area Walk-By Checklist (AWC) Location: Bldg. AUX Floor El Room, Area1 EAST 5. Does it appear that the area is free of potentially adverse seismic YX NO UD N/AD interactions that could cause flooding or spray in the area? The fire protection piping near the elevator is laterally restrained. 6. Does it appear that the area is free of potentially adverse seismic YX NO UO N/AO interactions that could cause a fire in the area? 7. Does it appear that the area is free of potentially adverse seismic YX NO UO N/AO interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? See comments in question 4 above, 8. Have you looked for and found no other seismic conditions that could YX ND UD adversely affect the safety functions of the equipment in the area? There are two loose ¼" concrete anchors on the bracket supporting PI-17652. WR 83868 has been initiated to address the observation. <u>Comments</u> (Additional pages may be added as necessary) Date: Evaluated by: Walter Diordievic Date: Dennis Zerchei

Sheet 2 of 10

,

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

PROPRIETARY	INFORMATION -	WITHHOLD F	ROM PUBLIC	DISCLO	SURE-
					Sheet 1 of 8
				Status:	Y⊠ N□ U□
Area Walk-By Checkl	ist (AWC)				
Location: Bldg. <u>AUX</u>	Floor El.	Room, Area	<sup>1</sup> <u>122 CRM CHL</u>	.LR	
Instructions for Comple	ting Checklist				
This checklist may be use space below each of the f Additional space is provi	ed to document the resolutions model at the end of this ded at the end of this	sults of the Area W ay be used to recor checklist for docum	alk-By near one d the results of j nenting other co	or more SW udgments an mments.	VEL items. The nd findings.
<ol> <li>Does anchorage o potentially advers opening cabinets)</li> </ol>	f equipment in the are e seismic conditions ( ?	ea appear to be free (if visible without n	of ecessarily	Y⊠ N⊟ l	J□ N/A□
2. Does anchorage o degraded conditio	f equipment in the arons?	ea appear to be free	of significant	Y⊠ N⊟ (	J_ N/A_
<ol> <li>Based on a visual raceways and HV seismic condition conditions of cable</li> </ol>	inspection from the f AC ducting appear to s (e.g., condition of su le trays appear to be in	loor, do the cable/c be free of potentia upports is adequate nside acceptable lin	onduit lly adverse and fill nits)?	Y⊠ N⊟ I	J□ N/A□
4. Does it appear the interactions with lighting)?	at the area is free of po other equipment in th	otentially adverse s e area (e.g., ceiling	eismic spatial tiles and	Y⊠ N⊟ I	U N/A

<sup>&</sup>lt;sup>1</sup> 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.

	Sheet 2 of 8
	Status: YX N U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>122 CRM Cl</u>	HLLR
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?	YM NO UO
<u><b>Comments</b></u> (Additional pages may be added as necessary)	
Evaluated by: Dileep Cherlopalle C.U. Pileep Kumer Resty	Date: <u>10 - 24 - 12 ·</u>
Bruce Lory Brine M. Long	10-23-12

The remaining pages are withheld from public disclosure.

>

,

.

							Sheet 1 of
						Status	: Y□ N⊠ U[
\rea	ı Walk-B	y Checklis	it (AWC)				
loca	tion: Bld	g. <u>SSCN</u>	Floor El.	Roon	n, Area <sup>1</sup> <u>12 DD CL</u>	.WP	
nstr	uctions f	or Complet	ing Checklist				
This pace Addit	checklist below ea tional spa	may be used ach of the fol ce is provide	to document the llowing question ed at the end of the	e results of the A s may be used t his checklist for	Area Walk-By near to record the result r documenting othe	r one or more S s of judgments er comments.	WEL items. The and findings.
1	Does an potentia opening	nchorage of ally adverse g cabinets)?	equipment in the seismic condition	area appear to ns (if visible wi	be free of thout necessarily	Y NX	U N/A
	The 12 has cor significa the dies is in a w	1 filtered wa roded ancho ant and only sel driven co vet environm	ter strainer adjac ors (wet environn requires cleanin oling water pump tent.	ent to the diese nent). The corr g and re-coatin o also shows sli	el oil day tank skid osion is not g. The anchorage ( ight corrosion, as it	of !	
	CAP 13 83771 v	52851 was vas initiated	initiated to docun to address the c	nent this observ orrosion.	vation, and WR		
2	. Does an degrade	chorage of o	equipment in the ?	area appear to	be free of significa	unt Y□ N⊠	U N/A
	The pip also slig	e support or htly corrode	the floor adjace d and in a wet e	nt to 121 filtere nvironment.	d water strainer is		
	This ob:	servation wa	s addressed in q	question 1.			
3.	Based o raceway seismic conditio	n a visual in s and HVA conditions ( ns of cable t	spection from th C ducting appear e.g., condition of rays appear to be	e floor, do the c to be free of po f supports is add e inside accepta	cable/conduit otentially adverse equate and fill ble limits)?	Y⊠ N□	U N/A
4.	Does it a interacti lighting)	appear that t ons with oth ?	he area is free of er equipment in	potentially adv the area (e.g., c	verse seismic spatia weiling tiles and	al Y⊠ N□	U N/A

<sup>1</sup> 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.

	Sheet 2 of
rea Walk-By Checklist (AWC)	Status: Y∐ N⊠ UL
ocation: Bldg. <u>SSCN</u> Floor El. Room, Area <sup>1</sup> <u>12 DD CLW</u>	P
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□
The fire protection piping is on short rods, so the mechanical couplings do not pose a spraydown threat.	
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?	YX ND UD
omments (Additional pages may be added as necessary)	
valuated by: Dennis Zercher Ongrach	Date: <u>10-22-2012</u>
Walter Djordjevic	10/25/12
$\mathbf{X}$	

	147-	H, D.	01	. 1 . 1 ? - *	(	••							Status	: Y⊵	Sheet 1 of $N \square U \square$
Area Locat	tion:	Bldg	SSC	N N	(AWC	or El.		ŀ	Room, A	Area <sup>1</sup> S	OUTH				
nsfr	uctio	ms for	r Com	nletir	 g Che	 cklist			·····				·····		
This c pace Addit	checl belo iona	clist m w eac l space	ay be h of th e is pro	used the follo	to docu owing l at the	ment t questic end of	he resu ons ma this cl	ilts of y be us hecklis	the Are sed to re st for do	a Walke ecord the cument	By near of e results ing other	one or r of judgi comme	nore S ments ents.	WEL and f	items. The indings.
1	. Do por op	es and tential ening	chorag ly adv cabine	e of e erse s ts)?	quipme eismic	ent in tl conditi	he area ions (if	appea f visibl	r to be e withc	free of out nece	ssarily	Υ⊠	N	טם	N/A
2.	. Do deş	es anc graded	horage condi	e of ea tions?	quipme	ent in th	ie area	appea	r to be	free of a	significan	it Y⊠	N	υロ	N/A
·															
3.	Bas rac seis con	sed on eways smic c dition	a visu and H onditions of ca	al ins IVAC ons (e able tr	pection ductin .g., con ays apj	n from ng appe ndition pear to	the flo ar to b of sup be ins	or, do e free ports i ide acc	the cab of poter s adequ ceptable	le/cond ntially a ate and limits)	uit dverse fill ?	Υ⊠	N	υ□	N/A
4.	Doa inte ligh	es it aj ractio iting)?	opear t ns wit	hat th h othe	e area er equij	is free oment i	of pote in the a	entially area (e	/ advers .g., ceil	e seisn ing tiles	ic spatial and	I Y⊠	N	U□	N/A 🗌
						·									

This selected area should be based on judgment, e.g., on the order of about 35 feet from the SWEL item.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE --

Sheet 2 of 2

Status: YX N U

Area Walk-By Checklist (AWC)	
Location: Bldg. <u>SSCN</u> Floor El. Room, Area <sup>1</sup> <u>SOUTH</u>	
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□
The fire protection piping is on short rods, so the bending moments will be such that it will not fail the mechanical couplings.	
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⊡
The gas bottles are well restrained.	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	YX NO UO
Comments (Additional pages may be added as necessary)	
1. 1 Hert	10 hel
Valuated by: <u>Walter Djordjevic</u>	Date://

		Sheet 1 of 6
\rea	Walk-By Checklist (AWC)	Status: Y NX U
locati	on: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>11 AFWP</u>	
nstru	ctions for Completing Checklist	
This c pace   Additi	hecklist may be used to document the results of the Area Walk-By near on below each of the following questions may be used to record the results of onal space is provided at the end of this checklist for documenting other co	e or more SWEL items. The judgments and findings. omments.
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□
	There is a missing fastener on the guard for 121 instrument air compressor.	
	CAP 1352975 has been initiated to evaluate this observation. Additonally, WR 83793 has been initiated to address this observation.	
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□
	There are open "S" hooks on the lighting fixtures near the 11 turbine driven auxiliary feedwater pump. The light fixtures would only swing, and would not impact equipment other than nearby piping or conduits. It is not a seismic concern.	
	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	

-PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

 Sheet 2 of 6

 Status:
 Y
 N
 U

Area Walk-By	/ Checklist (	(AWC)		

Location: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>11 AFWP</u>	
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□
The fire protection header recieves lateral support from the walls. There are no seismic issues.	
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□
The scaffolding is tied off appropriately.	
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. The scaffolding is tied off appropriately.	
2. The chainfall north of PNL 133 is tied off around the conduit support and is acceptable.	
3. The chainfall for 2AF01301 can potentially strike MCC 1A BUS 1. CAP 1352961 has been initiated to evaluate this observation. Additonally, WR 83796 has been initiated to address this observation.	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	YX NI UI
Comments (Additional pages may be added as necessary)	
1. There was a wrench found and removed from behind the wall mounte	d panel indicator, PI11167.
2. There was a wrench found and removed from behind the local alarm p	panel 70550.
3. The cable coil adjacent to 122 air compressor panel is acceptable.	
4. The abandoned light fixture chain near MV-32025 is not a seismic issu	ue.
Evaluated by: Walter Djordjevic	Date: 11/5/12
Kyle Kriesel /// buent	Date: 10:25:12

walk-By Checklist (AWC)		
ion: Bldg. <u>TURB</u> Floor El. Room, Area <sup>i</sup> <u>12 BATT</u>	Τ	
uctions for Completing Checklist checklist may be used to document the results of the Area Walk-By new below each of the following questions may be used to record the resul ional space is provided at the end of this checklist for documenting oth	ar one or more SWEL items. The Its of judgments and findings. her comments.	
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□	
Does anchorage of equipment in the area appear to be free of signific degraded conditions?	cant Y⊠ N□ U□ N/A□	
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□	
Does it appear that the area is free of potentially adverse seismic spat interactions with other equipment in the area (e.g., ceiling tiles and lighting)?	ial Y⊠ N□ U□ N/A□	
·		·
oom in which the SWEL item is located is very large (e.g., Turbine Hall), the a ected area should be based on judgment, e.g., on the order of about 35 feet fro	area selected should be described. m the SWEL item.	

	Sheet 2 of 3				
Area Walk-By Checklist (AWC)	Status: YX N U				
Location: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>12 BATT</u>					
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□				
<ul> <li>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)?</li> <li>The eyewash station is adequately secured to the wall. Water supply on the cart is secured with a bungee cord.</li> </ul>	Y⊠ N□ U□ N/A□				
Site engineering has reviewed this observation and concluded there is no selsmic concern. Please refer to the table contained in Appendix F for the disposition of this observation.					
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? As a precaution, the SWEs recommend closing the door pulley "S" hook above door 228.	YX N U				
CAP 1352343 and WR 83645 have been initiated to address this observation.					
Comments (Additional pages may be added as necessary)					
, ,	· · ·				
valuated by: <u>Walter Djordjevic</u>	Date: 10/25/p				
Damin Zouthan () and a line	10-22-2012				
Area W	alk-By Checklis			Status: Y N V	
----------------------------------	--	---	--	---	----------
Location	Bidg. TUBB	Floor Bl.	Room, Area <sup>1</sup> EDG D-	1	<u> </u>
Instruct	ions for Completin	ng Checklist			-
This che space be Addition	ckilst may be used low each of the foll al space is provide	to document the lowing questions d at the end of thi	esuits of the Area Walk-By ne may be used to record the resu s checklist for documenting ot	ar one or more SWEL items. The Its of judgments and findings. her comments.	
1. E P 0	Oces anchorage of e otentially adverse s pening cabinets)?	quipment in the a eismic conditions	rea appear to be free of s (if visible without necessarily	YX NO UO N/AO	-
2. D de	ocs anchorage of e egraded conditions'	quipment in the a ?	rea appear to be free of signific	ant Y⊠ N□ U□ N/A□	
• .					
3. B. ra . se . cc	ased on a visual ins ceways and HVAC dismic conditions (e onditions of cable to	pection from the ducting appear t a.g., condition of s rays appear to be	floor, do the cable/conduit o be free of potentially adverse supports is adequate and fill inside acceptable limits)?	Y⊠ N⊡ U⊡ N/A⊡	
4. D in lig	oes it appear that th teractions with othe ghting)?	e area is free of p er equipment in th	ootentially adverse seismic spat he area (e.g., ceiling tiles and	ial Y NX U N/A	
Ti ge	here is a possible o enerator control par	pen "S" hook on i nel.	a light fixture above the diesel		
C, Ide W	AP 1352001 has be entified during thes 'R 83556 has been	een iniliated to ev e walkdowns. In iniliated to addre	aluate the open "S" hooks addition to this action request, ss the observation		
					•
If the root	m in which the SWEL	. item is located is v	ery large (e.g., Turbine Hall), the a	rrea selected should be described.	

-

. . . . . . . . . . . . . .

1.1

.

PROPRIETARY INFORMATION -- WITHHOLD FROM PUBLIC DISCLOSURE

. .

.

	Sheet 2 of 3
Area Walk-By Checklist (AWC)	Status: Y N U
ocation: Bldg. TURB Floor El. Room. Area <sup>1</sup> EDG D-1	· · · · · · · · · · · · · · · · · · ·
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area?	
The fire protection system is a deluge system, so it is not charged. It is acceptable.	<b>Generalen (en en e</b>
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? All of the oil reservoirs (fuel) are well secured and anchored.	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)? The scaffolding is seismically acceptable.	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? The unit steam heater piping can accommodate a large (pendulum) displacement of the heater on rods. There is no seismic concern.	YM UD
omments (Additional pages may be added as necessary)	
valuated by: Waiter Diordjevic	Date: 11-7-2012
O $B$	
Dennis Zercher	11-7-2012

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	PROPRIETARY I	NFORMATION	WITHHOLD FROM PUBL	IC DISC	<del>JOSURE -</del>
					Sheet 1 of 11
Aroa	Nalk-By Checklist			Status:	Y⊠ N∐ U∐
Alea					
Locati	on: Bldg. <u>TURB</u>	_ Floor El.	Room, Area <sup>1</sup> <u>11 BATT</u>		
Instru	ctions for Completing	g Checklist			
This cl space l Additi	necklist may be used to below each of the follo onal space is provided	o document the results wing questions may b at the end of this chec	of the Area Walk-By near on be used to record the results of cklist for documenting other co	e or more S judgments a omments.	WEL items. The and findings.
1.	Does anchorage of eq potentially adverse se opening cabinets)?	uipment in the area ag ismic conditions (if vi	opear to be free of isible without necessarily	Y⊠ N□	U N/A
2.	Does anchorage of eq degraded conditions?	uipment in the area ap	opear to be free of significant	Y⊠ N⊡	U N/A
3.	Based on a visual insp raceways and HVAC seismic conditions (e. conditions of cable tra	bection from the floor, ducting appear to be f g., condition of suppo ays appear to be inside	, do the cable/conduit free of potentially adverse orts is adequate and fill e acceptable limits)?	Y⊠ N□	U N/A
4.	Does it appear that the interactions with othe lighting)?	e area is free of potent r equipment in the are	ially adverse seismic spatial a (e.g., ceiling tiles and	Y⊠ N⊟	U[] N/A[]

<sup>&</sup>lt;sup>1</sup> 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.

- PROPRIETARY INFORMATION	WITHHOLD-FROM PUBLIC-DISCLOSURE -
	Sheet 2 of 11
Area Walk-By Checklist (AWC)	Status: Y X N U
Location: Bldg TUBB Floor Fl	Room Areal 11 BATT
5. Does it appear that the area is free of poten	$\frac{1}{2} \frac{1}{2} \frac{1}$
interactions that could cause flooding or sp	bray in the area?
6. Does it appear that the area is free of poten interactions that could cause a fire in the area is fire in the area.	ntially adverse seismic Y⊠ N□ U□ N/A□ rea?
7. Does it appear that the area is free of poten interactions associated with housekeeping equipment, and temporary installations (e., shielding)?	ntially adverse seismic Y N U V N/A practices, storage of portable g., scaffolding, lead
8. Have you looked for and found no other se adversely affect the safety functions of the	eismic conditions that could Y⊠ N□ U□ equipment in the area?
<u><b>Comments</b></u> (Additional pages may be added as necess	sary)
Evaluated by: Bruce Lory Ban M.	Jong Date: 11-13-12
Dileep Cherlopalle	pkumarcheddig Date: <u>11-9-12</u>

## SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

-PROPRIETARY INFORMATION WITHHOLD FROM PUBLE	C DISCLOSURE
	Sheet 1 of 32
	Status: Y NX U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>BUS 111</u>	
Instructions for Completing Checklist	
This checklist may be used to document the results of the Area Walk-By near or space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other c	e or more SWEL items. The judgments and findings. omments.
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. There is a gap between the base plate and the wall for the unit cooler. The anchor bolts seem to be tight. Will need to verify if this is acceptable per procedure.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
2. The back cover bolts are loose for 111M voltage regulator cabinet.	
WR 83828 has been initiated to address this observation.	
3. A conduit box is attached to unistrut, and both screws are loose. They are located approximately 10' from the floor and above the voltage regulator.	
WR 83834 has been initiated to address this observation.	
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> 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.

# WITHHOLD FROM PUBLIC DISCLOSURE PROPRIETARY INFORMATION Sheet 2 of 32 Status: Y N U Area Walk-By Checklist (AWC) Location: Bldg. TURB Floor El. Room, Area<sup>1</sup> BUS 111 Y NX 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)? 1. Vertical rigid conduit to box CS19148 (BUS 111 safeguards SWGR unit cooler) and Panel 132-10 has a conduit clamp not attached to the conduit. Located on column E9, it has a misplaced loose attachment at about 10' from floor underneath duct. WR 83829 has been initiated to address this observation. 2. The conduit bracket attached to the unistrut for the conduit running to 480V Bus 111 and 112 control panel seems to be loose with a gap between the bracket and the unistrut. WR 83833 has been initiated to address this observation. 3. One of the two supports for a light fixture is loose from the wall and the upper anchor bolt for the support is not fully engaged. SWEs judged that the light fixture will remain in place, but recommend that the bolt be tightened. WR 83834 has been initiated to address this observation. 4. The conduit support on top of the RMU 213 cabinet, on the west wall, has a bolt that is not fully engaged. The support is located about 10' from floor level. WR 83836 has been initiated to address this observation. 5. An electrical wire is tie wrapped to the conduit above door 54, next to an electrical cable tray. CAP 1353147 has been initiated to document this observation. Additionally, WR 83841 has been initiated to correct the condition. 6. An electrical conduit is touching the duct work above the 111 Bus. It is located approximately 10' from the floor and above the entry to door 168. This is a flex conduit and the cable is protected. There is no seismic concern. 4. Does it appear that the area is free of potentially adverse seismic spatial Y⊠ N□ U□ N/A□

4. Does it appear that the area is free of potentially adverse seismic spatial Y⊠ N□ U interactions with other equipment in the area (e.g., ceiling tiles and lighting)?

	TNEODMATICN		EDOM-	DIDI TO DIGOLO	
-PROPREBENCE	-THLOURRETTON	-MTIUHODD	-r rom	FODDIC DISCHO	JURE

Sheet 3 of 32

Status: Y N U

Area V	Walk-By	Checklist	(AWC)
--------	---------	-----------	-------

Location: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>BUS 111</u>	
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□
Unit cooler supply and return lines are Seismic Category I designed.	
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□
A light fixture may come in contact with the flexible conduit feeding into the 11A transformer. It is located on top of 11A transformer with only 2" of clearance.	
CAP 1353277 has been initiated to evaluate this observation.	
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□
SWEs noted a single light fixture in close proximity to a fluorescent light fixture. These two fixtures will interact under seismic conditions and bulbs may break but the light fixtures will not fall. There are no soft targets in the zone of influence. Therefore, SWEs judge this as an acceptable interaction.	
<u>Comments</u> (Additional pages may be added as necessary)	
1. Duct tape was found on a bracket supporting some duct work. It was above the "ladder storage area."	located about 10' from floor,
2. There is a pigtail cable around the conduit with no tie wrap. It was loca the ground between 11A and the transformer.	ated approximately 15' from
Evaluated by: <u>Dileep Cherlopalle CV. Dileep Kumer Reddy</u>	Date: <u>10-30-12</u> .
Bruce M. Lory Bruce M. Jony	Date: <u>11-01-12</u>
<i>v</i>	

## SUNSI - WITHHOLD FROM PUBLIC-DISCLOSURE

					Sheet 1 of 15
Area Walk-By Check	list (AWC)			Status:	Y N U
Logation: Didg TUPB		Doom	Arron RUS 15		······
Location. Bidg. <u>TOND</u>	FI001 EI.	Köölin	, Area <u>DOS 15</u>		
Instructions for Compl	eting Checklist				
This checklist may be us space below each of the Additional space is prov	sed to document the following questio ided at the end of	e results of the A ns may be used to this checklist for	rea Walk-By near one record the results of documenting other co	e or more S judgments a omments.	WEL items. The and findings.
1. Does anchorage of potentially advertised opening cabinets	of equipment in th se seismic conditi )?	e area appear to b ons (if visible wit	be free of hout necessarily	Y NX	U N/A
The emergency i number 26 and a missing wingnut the wall bracket.	light EL15, located bove the test stat on the one side fo	l on the safety rel ion for the breake ir the threaded ro	ated block wall r cabinets, has a d holding EL15 on		
CAP 1352966 ha Additonally, WR	as been initiated to 83790 has been i	o evaluate this ob nitiated to addres	servation. s this observation.		
2. Does anchorage degraded conditi	of equipment in th ons?	ie area appear to l	be free of significant	Y⊠ N⊟	U N/A
3. Based on a visua raceways and H seismic condition conditions of ca	al inspection from VAC ducting appoints (e.g., condition ble trays appear to	the floor, do the ear to be free of p of supports is ad be inside accept:	cable/conduit otentially adverse equate and fill able limits)?	Y⊠ N⊟	U N/A
The light fixtures other means of judge it to be go	s are well supporte support. These an od practice.	ed by a chain with e visible from the	closed "S" hooks or floor. The SWEs		

.

.

<sup>&</sup>lt;sup>1</sup> 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.

#### - PROPRIETARY INFORMATION WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 2 of 15

Status: Y N V

# Area Walk-By Checklist (AWC)

Location: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>BUS 15</u>	
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□
A large size flex conduit with a metal end is held in place only with tie wraps. If the tie wraps failed under seismic loading, it is possible that the flex conduit would snap back to an uncoiled position and may impact the side of the RMU-113 cabinet.	
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.	
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□
The SWEs noted an empty bucket roped to a column. They judged it to be acceptable in accordance with site's seismic housekeeping procedure.	

# PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 3 of 15

Status: Y N U

#### Area Walk-By Checklist (AWC)

Location: Bldg. <u>TURB</u> Floor El.	Room, Area <sup>1</sup> BUS 15
8. Have you looked for and found no other se adversely affect the safety functions of the	eismic conditions that could $Y \square N \boxtimes U \square$ equipment in the area?
1. The bus duct to breaker 15-3 (on the to flange connection that has its east side on its west side.	p of breaker 15-3) has a ne and a half inch lower than
Site engineering has reviewed this observ no seismic concern. Please refer to the ta for the disposition of this observation.	ration and concluded there is able contained in Appendix F
2. Above breaker 15-6, the conduit suppo loose. It is connecting the conduit to the t	ort attatchment seems to be unistrut.
CAP 1353223 has been initiated to evalue Additonally, WR 83835 has been initiated	ate this observation. to address this observation.

<u>Comments</u> (Additional pages may be added as necessary)

- 1. Caution tape (foreign material) is stuck to the HVAC exhaust diffuser above panel 70052.
- 2. Duct tape (foreign material) is stuck to a vertical conduit connected to bus 15 logic cab-relay cab 2.
- 3. Right next to the ladder over the electrical cable tray at the unistrut bolt, there are about 4 screws stored. The elevation is about 4' from the ground. It is not a seismic concern.

Plant personnel removed the identified foreign material.

Evaluated by: <u>Dileep Cherlopalle</u>	C.V. Dilep PKilmer Redd y	Date: <u>10-29-12.</u>
Bruce M. Lory	Bune M. Joy	11-01-12

## SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

The remaining pages are withheld from public disclosure.

.

• .

	Sheet 1 of 6
rea Walk-By Checklist (AWC)	Status: YX NU U
ocation: Bldg. <u>TURB</u> Floor El. Room, Area <sup>1</sup> <u>ROD DRIVE</u>	
structions for Completing Checklist	
his checklist may be used to document the results of the Area Walk-By near or bace below each of the following questions may be used to record the results o dditional space is provided at the end of this checklist for documenting other of	ne or more SWEL items. The fjudgments and findings. comments.
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?</li> </ol>	Y⊠ N⊡ U⊡ N/A⊡
<ol> <li>Does anchorage of equipment in the area appear to be free of significant degraded conditions?</li> </ol>	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⊟
Block walls are all seismically designed. Block walls numbers 36 and 39 are safety related.	
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)?	YX NO UO N/AO
There is an open "S" hook for the light fixture above terminal box A1723 for non-safety related room cooling. There is no seismic interaction concern.	
CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	

			-		
PROPRIETARY	INFORMATION	WITHHOLD	FROM	PUBLIC DISCLOSU	RE-

		Sheet 2 of 6
	Status	: Y⊠ N□ U□
Area Walk-By Checklist (AWC)		
Location: Bldg. TURB Floor El. Room, Area <sup>1</sup> ROD DRIVE		
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
Supply and return lines to the MTR 154-46 11 rod drive air handler blower have no lateral restraint (rod hung). The blower also has no lateral restraint (three rod trapese hangers). There may be a potentially large movement at the blower.		
Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.		
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□	υ
<u>Comments</u> (Additional pages may be added as necessary)		
Evaluated by: Wally Diordjevic	 Date:	11/14/2012 19/12
Nie niesel fr frank		
1		

•

.

· · · ·

.

.

1

.

....

And a state of the state of the

# SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE

	WITHHOLD FROM PUBLI	C DISCLOSURE
		Sheet 1 of 22
		Status: Y□ N⊠ U□
Area Walk-By Checklist (AWC)		
Location: Bldg. <u>AUX</u> Floor El.	Room, Area <sup>1</sup> SFP HX 122	
Instructions for Completing Checklist		
This checklist may be used to document the resu space below each of the following questions ma Additional space is provided at the end of this ch	alts of the Area Walk-By near one y be used to record the results of hecklist for documenting other co	e or more SWEL items. The judgments and findings.
1. Does anchorage of equipment in the area potentially adverse seismic conditions (in opening cabinets)?	appear to be free of f visible without necessarily	Y□ N⊠ U□ N/A□
The unistrut support for panel 1LPB-4 ar anchor bolts on one of the legs. There a leg. The leg might have poor quality fille a unistrut frame that also supports 1RPE above. The unistrut frame is clip angled places and is welded to an I-beam at bou on the left leg, the frame is still seismical the wall and impact MCC 1GA Bus 1.	and 1RPB3 seems to have no are anchor bolts for the other at welds. 1LPB-4 is mounted on 33 and the three transformers to a structural column in three th ends. If there is no fillet weld and will not pry off cument the missing anchors	
<ul><li>and WR 83676 was initiated to install an anchors.</li><li>2. Does anchorage of equipment in the area degraded conditions?</li></ul>	chors for the leg that's missing a appear to be free of significant	Y⊠ N□ U□ N/A□
<ol> <li>Based on a visual inspection from the flor raceways and HVAC ducting appear to b seismic conditions (e.g., condition of sup conditions of cable trays appear to be inspectively appear to be appear to be inspectively appear to be inspectively appear to be inspectively appear to be appeared appear to be ap</li></ol>	bor, do the cable/conduit be free of potentially adverse oports is adequate and fill side acceptable limits)?	Y⊠ N□ U□ N/A□
4. Does it appear that the area is free of pot interactions with other equipment in the lighting)?	entially adverse seismic spatial area (e.g., ceiling tiles and	Y⊠ N□ U□ N/A□
A light fixture may swing into piping on b judge this to be acceptable because the range of motion and if it did impact the p deformation of the light hood with no dar	oth sides. However, the SWEs light fixture has an acceptable ipe, it would cause ductile mage to the pipe.	
5. Does it appear that the area is free of pot interactions that could cause flooding or	entially adverse seismic spray in the area?	Y⊠ N□ U□ N/A□

<sup>&</sup>lt;sup>1</sup> 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.

- PROPRIETARY INFORMATION - WITHHOLD FROM PUBLI	C-DISCLOSURE-
	Sheet 2 of 22
	Status: Y NX U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>SFP HX 122</u>	
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□
See observations in the comment section.	
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?	YX NO UO
Comments (Additional pages may be added as necessary)	
1. MCC 1GA BUS 2 is missing several plastic plugs for holes on the end	of the MCC.
CAP 01352415 has been initiated to evaluate the observation. In addition initiated to address the condition.	n, WR 83671 has been
2. There are open "S" hooks for lighting fixtures in some of the locations	in the heat exchanger area.
CAP 1352001 has been initiated to evaluate the open "S" hooks on light f identified during these walkdowns. In addition to this action request, WR address these observations.	fixtures which have been 83556 has been initiated to
3. A single light fixture has duct tape and it needs to be removed for hous	sekeeping.
CAP 1352391 has been initiated to address this foreign material.	
4. The 122 spent fuel pool heat exchanger component cooling inlet line h measurement devices strapped to the pipe with a metal strap.	nas two ultrasonic flow
Site engineering has reviewed this observation and concluded there is no refer to the table contained in Appendix F for the disposition of this obser	o seismic concern. Please vation.
5. There is scaffolding tied to the spent fuel pool heat exchanger 122. O within 1" of touching CC-43-7.	ne of the scaffold couplers is
CAP 1352559 has been initiated to evaluate this observation.	

	Sheet 3 c
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El.	Room, Area <sup>1</sup> SFP HX 122
Evaluated by: Bruce M. Lory Brane M.	Joy Date:Date:

.

.

.

## SUNSI -- WITHHOLD FROM PUBLIC DISCLOSURE

.

	Sheet 1 of 18
	Status: Y NX U
Area Walk-By Checklist (AWC)	
Location: Bldg. <u>AUX</u> Floor El. Room, Area <sup>1</sup> <u>SFP PUMP 1</u>	22
Instructions for Completing Checklist This checklist may be used to document the results of the Area Walk-By near one space below each of the following questions may be used to record the results of Additional space is provided at the end of this checklist for documenting other co	e or more SWEL items. The judgments and findings.
<ol> <li>Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?</li> </ol>	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⊡

.\_\_

<sup>&</sup>lt;sup>1</sup> 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.

				Sheet 2 of 18 Status: Y□ N⊠ U□
Area	Walk-By Checklis	st (AWC)		
Locati	on: Bldg. <u>AUX</u>	Floor El.	Room, Area <sup>1</sup> SFP PUM	P 122
5.	Does it appear that interactions that co	the area is free of po uld cause flooding o	otentially adverse seismic r spray in the area?	Y⊠ N□ U□ N/A□
6.	Does it appear that interactions that co	the area is free of po uld cause a fire in th	otentially adverse seismic e area?	Y⊠ N□ U□ N/A□
7.	Does it appear that interactions associa equipment, and ten shielding)? There are stored C cabinet 1RPB6 new	the area is free of po ated with housekeep aporary installations operations test equip of to the 121 spent fu	otentially adverse seismic ing practices, storage of portable (e.g., scaffolding, lead ment above the electrical iel pool pump. Also, there are	Y□ N⊠ U□ N/A□ e
	electrical wires loos door. WR 83723 was init accordance with si address the long te	sely tied around the iated to secure the i te procedures. CAP erm equipment config	piping next to the 184 entry Instrumentation and cabling in 1352586 was initiated to guration control issue.	
8.	Have you looked for adversely affect the A 3" copper line is It has beam clamps This configuration of	or and found no othe e safety functions of running along the ce s in the same direction may be vulnerable in	r seismic conditions that could the equipment in the area? Filing above 121 and 122 pumps on and a broken hanger rod. The seismic event.	Y□ N⊠ U□ s.
	CAP 1352733 was 83747 was initiated	written to document to re-attach the bro	this observation, and WR ken support.	

<u>**Comments**</u> (Additional pages may be added as necessary)

#### PROPRIETARY INFORMATION - WITHHOLD FROM PUBLIC DISCLOSURE

Sheet 3 of 18

Status: Y N U

#### Area Walk-By Checklist (AWC)

Location:	Bldg.	<u>AUX</u>	Floo	r El.		Roo	m, Are	a <sup>i</sup> <u>S</u>	FP PUMP 122	 	
	A									 	

1. A fire protection valve near the ceiling is using a tie wrap to hold the valve handle in position.

Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.

2. The 121 spent fuel pump has a cover between the motor and the pump that is tied with two metal tie wraps. This cover is a radiation protection shield and has no impact on the pump.

Site Engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.

- 3. The 121 spent fuel pump has an anchor that is flush with the top of the nut. There are no threads beyond the nut. There is no impact on the seismic capacity.
- 4. There are four maintenance stands (CTV upper frame stands) about 5' high with four legs. One of the cabinets is next to the steam heating line, and it is not tied down to any structural member.

Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.

5. The radiation protection stands with signs for contaminated area are close to the 121 spent fuel pool pump and could potentially impact the glass oil bubbler on the pump. One stand is not rolled, and the other stnad is not taped.

Site engineering has reviewed this observation and concluded there is no seismic concern. Please refer to the table contained in Appendix F for the disposition of this observation.

6. There is lead radiation protection shielding chained to the wall near the spent fuel pool skimming pumps. If the shielding falls, it could potentially damage the tubing.

CAP 1352586 has been initiated to evaluate this observation. WR 83641 has been initiated to improve the shielding tie-off.

Evaluated by: <u>Bruce M. Lory</u>	Bene M. Jay	Date: 1/-01-12
Dileep Cherlopalle	C.V. Dileop Kumer Reddy	11-1-12

## 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 containment entry or cabinet internal inspection. Table D-1 summarizes the reasons each item is inaccessible during normal plant operation.

As shown in the table below, 29 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 electrical safety hazards posed while the equipment is energized.

All items will be walked down by the end of refueling outage (RFO) 1R30 in Spring 2016. An updated submittal report with the walkdown results of the deferred items will be provided 60 days following the end of RFO 1R30.

Table D-1: Summary of Inaccessible Equipment				
Equipment ID	Description	Reason for Inaccessibility		
053-481	D1 DSL GEN EXPANSION TANK	Protected equipment – no access		
075-012	122 CONT RM CHLR	Protected equipment - no access		
11 BATT CHG	11 BATTERY CHARGER	Internal inspection requires equipment to be out of service		
132-281	11 SFGDS SCRNHSE ROOF EXHT FAN	Need scaffold to verify knee brace as part of anchorage verification		
174-013	13 CNTMT FCU	In containment - requires outage		
1FT-464	MN STM FR 11 STM GEN CHNNL I RED F XMTR	In containment - requires outage		

Table D-1: Summary of Inaccessible Equipment				
Equipment ID	Description	Reason for Inaccessibility		
1LT-428	1 PRZR (CHNL III-BLU) LVL XMTR	In containment - requires outage		
1LT-461	11 STM GEN LOOP A CHNNL I RED LVL XMTR	In containment - requires outage		
BUS 122	BUS 122 480V SWITCHGEAR	Internal inspection requires equipment to be out of service		
BUS 16	BUS 16 4.16KV SWITCHGEAR	Internal inspection requires equipment to be out of service		
CV-39405	11 CRDM SHRD CLG COIL SPLY CV	In containment - requires outage		
MCC 1A1	MOTOR CONTROL CENTER 1A BUS 1	Internal inspection requires equipment to be out of service		
MCC 1AB2	MOTOR CONTROL CENTER 1AB BUS 2	Internal inspection requires equipment to be out of service		
MCC 1K2	MOTOR CONTROL CENTER 1K BUS 2	Internal inspection requires equipment to be out of service		
MCC 1L2	MOTOR CONTROL CENTER 1L BUS 2	Internal inspection requires equipment to be out of service		
MCC 1T2	MOTOR CONTROL CENTER 1T BUS 2	Internal inspection requires equipment to be out of service		
MTR 111F-31	11 INVERTER (INSTR BUS II-WHI)	Internal inspection requires equipment to be out of service		
MTR 111F-32	13 INVERTER (INSTR BUS III-BLU)	Internal inspection requires equipment to be out of service		
MV-32141	14 FCU CLG WTR OUTL ISOL MV A	In containment - requires outage		
PNL 11	DISTRIBUTION PANEL 11	Internal inspection requires equipment to be out of service		

Table D-1: Summary of Inaccessible Equipment					
Equipment ID	Description	Reason for Inaccessibility			
PNL 111	INSTR BUS II (WHI) PNL 111	Internal inspection requires equipment to be out of service			
PNL 113	INSTR BUS III (BLUE) PNL 113	Internal inspection requires equipment to be out of service			
PNL 12	DISTRIBUTION PANEL 12	Internal inspection requires equipment to be out of service			
PNL 133	AC DISTRIBUTION PANEL 133	Internal inspection requires equipment to be out of service			
PNL 136	AC DISTRIBUTION PANEL 136	Internal inspection requires equipment to be out of service			
PNL 153	DISTRIBUTION PANEL 153	Internal inspection requires equipment to be out of service			
PNL 1EM	DIST PNL 1EM	Internal inspection requires equipment to be out of service			
SV-33371	11 FCU DISCH TO CNTMT DOME CD- 34072 SV	In containment - requires outage			
SV-37460	U1 TRN A CHLD WTR/CLG WTR ISOL SV	In containment - requires outage			

#### SUNSI - 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 F, *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 <u>for</u> <u>Near Term Task Force (NTTF) Recommendation 2.3</u> <u>Seismic Walkdown Inspection</u> <u>of</u> Prairie Island Nuclear Generating Station Unit 1

November 15, 2012

**Prepared by Peer Reviewers** 

Todd A. Bacon, PE (Team Leader)Mark S. EtreDileep CherlopalleS. Seilhymer

Todd Bacon

Peer Review Team Leader Certification Signature

Date: November 15, 2012

# Introduction

# **Overview**

This report documents the independent peer review for the Near Term Task Force (NTTF) Recommendation 2.3 Seismic Walkdowns performed by Stevenson & Associates (S&A) for Unit 1 of the Prairie Island Nuclear Generating Plant (PINGP). 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).
- Review of a sample of the checklists prepared for the Seismic Walkdowns & Area 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 for PINGP Unit 1 are Messrs. Todd A. Bacon and Mark S. Etre of S&A, and Dileep Cherlopalle and S. Seilhymer of NSPM. Mr. Bacon is designated the Peer Review Team Leader. Messrs. Etre and Bacon are not involved in the seismic walkdown inspection process so that they can maintain their independence from that portion of the project. Mr. Bacon is a civil-structural engineer with over thirty years of nuclear engineering experience and has received the Seismic Walkdown Engineer (SWE) training. Mr. Etre is an advanced degree mechanical engineer with an undergraduate civil-structural engineering degree and over twenty-two years of nuclear power plant experience. Mr. Etre has also been trained as a Seismic Capability Engineer (5-day EPRI-SQUG Training) and a Seismic Walkdown Engineer (SWE EPRI 2-day training). Mr. Cherlopalle and Mr. S. Seilhymer from the Operations department have participated in the peer review of the SWEL, while Mr. Bacon and Mr. Etre have participated in all other phases of the peer review process for PINGP Unit 1.

The SWEL development was performed by Messrs. P. Valtakis of NSPM and Bruce Lory of S&A. The peer review resulted in no additional findings beyond the comments shown on the checklist dated October 22, 2012. The SWEL Peer Review checklist is found in Attachment 1. The discussion for the SWEL development peer review is also contained in this peer review report.

Interviews were conducted by Messrs. Bacon and Etre with the SWE inspection team after review of a sample of the Unit 1 Seismic Walkdown Checklists (SWCs) and the Area Walk-by Checklists (AWCs) to ascertain procedural compliance with the Seismic Walkdown Guidance (SWG). The interviews were conducted by Mr. Bacon with Messrs.

Dennis Zercher, Kyle Kriesel, Walter Djordjevic and Bruce Lory of the SWE inspection team on October 23, 2012. Messrs. Etre and Bacon conducted interviews with all of the above including Dileep Cherlopalle of NSPM, but without Mr. Dennis Zercher on October 30, 2012. Mr. Cherlopalle was a member of the SWE inspection team as well as the peer reviewer for the SWEL development. In addition, Messrs. Etre and Bacon conducted an interview on November 5, 2012 with Mr. Zercher to ensure both peer reviewers interviewed all members of the SWE team. The discussion of the sample SWCs and AWCs is provided in the peer review report.

No issues were identified which challenged the current licensing basis.

# **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).

This section documents the Peer Review - Selection of SSCs performed for PINGP - Unit 1.

# Peer Review Activity – 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 individuals who were directly responsible for development of the SWEL:

Mr. P. Valtakis, Prairie Island Plant Engineer

Mr. Bruce Lory, Senior Mechanical Engineer

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)
  - o Reactor Coolant Pressure Control (RCPC)
  - o Reactor Coolant Inventory Control (RCIC)
  - o Decay Heat Removal (DHR)
  - Containment Function (CF)

This peer review determined that the SSCs selected for the seismic walkdowns represent a diverse sample of equipment required to perform the five safety functions.

- Verification that the SSCs selected include an appropriate representation of items having the following sample selection attributes:
  - o Various types of systems
  - o Major new and replacement equipment
  - o Various types of equipment
  - Various environments

- o Equipment enhanced based on the findings of the IPEEE
- o Risk insight consideration

The SWEL peer review commented that no Safety Injection (SI) or Component Cooling (CC) equipment were on the SWEL reviewed. SWEL 1 was revised to expand the selection of equipment beyond the scope of the equipment submitted to the NRC as the IPEEE equipment list. Specifically the following equipment was added to SWEL 1 to be walked down:

- 145-071, the 11 SI Pump
- MV-32077, Sump B To 11 RHR Pump Train A (Outside) MV
- 145-122, the 12 CC Pump

This final peer review determined that the SSCs selected for the seismic walkdowns include a sample of items that represent each attribute/consideration identified above.

# 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 peer review checklist dated October 22, 2012 is attached to this document. There were no additional findings from the Peer Review other than those noted on the checklist.

# **Resolution of Peer Review Comments – Selection of SSCs**

All comments requiring resolution were incorporated prior to completion of this peer review.

# **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 final SWEL sufficiently represents a broad population of plant Design Class I equipment and systems to meet the objectives of the NRC 50.54(f) letter.

# **Review of Sample Seismic Walkdown & Area Walk-Bys Checklists**

# **Overview**

A peer review of the SWCs and AWCs was performed after which an interview was conducted by Messrs. Bacon and Etre with the SWE inspection team in accordance with the SWG requirements. Interviews were conducted with the SWEs on October 23 and 30, 2012, as well as on November 5, 2012. The SWE trained walkdown engineers were Messrs. Dennis Zercher, Kyle Kriesel, Dileep Cherlopalle, Walter Djordjevic and Bruce Lory.

# Sample Checklists

Table E-1 lists the SWC and AWC samples which represent approximately 22% of the SWCs and 24% of the AWCs.

Table E-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1					
Equipment Identification	Equipment Class	Walkdown Item	Observations		
1LT-763	18 - Instruments on Racks	12 Reactor Vessel Head Dynamic Range TRN B D/P Transmitter	No concerns		
1NR3	20 - Instrumentation and Control Panels and Cabinets	NIS Rack III (BLU) 1NR3	No concerns		
11 BATT	15 - Batteries on Racks	11 Battery (& Battery Rack)	No concerns		
12 BATT CHG	16 - Battery Chargers and Inverters	12 Battery Charger	No concerns		
032-292	9 - Fans	122 Cont. Room Clean-up Fan	No concerns		
053-201	21 - Tanks and Heat Exchangers	D1 Diesel Generator Fuel Oil Day Tank	No concerns		
053-481	21 - Tanks and Heat Exchangers	D1 Diesel Generator Expansion Tank	Missing U-bolt assessed and determined OK by plant engineering.		

Table E-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1					
Equipment Identification	Equipment Class	Walkdown Item	Observations		
112M/XFMR	4 - Transformers	112M Transformer	Open S-hooks not a credible hazard to transformer. CAP 01352001 written to address open S-hooks. WR 83556 also written to address this observation.		
135-101	21 - Tanks and Heat Exchangers	12 Cooling Water Pump DSL JCKT Cooling Heat Exchanger	No concerns		
145-122	5 - Horizontal Pumps	12 CC Pump	Black insulation found behind the 12 CC pump at support column base 1-CCH-375 (support number). CAP 1352321 written to address FME issue.		
158-011	0 - Other	11 Cooling Water Strainer	FME underneath loose conduit clamp could be nut. Conduit clamp found loose with nut missing (found underneath on floor). Solenoid valve nearby and adjacent conduit clamp on other side is tight. Therefore SWE judge loose conduit clamp not an adverse seismic condition.		
174-162	10 - Air Handlers	Train A Event MON RM West Unit CLR	Lighting fixture will collide with the drip pan or lateral frame, but is not a seismic hazard to the cooler.		
55400	14 - Distribution Panels	D1 Diesel Generator Auxiliary Control Panel	No concerns		
Table E-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1					
--	--	---------------------------------------	--	--	
Equipment Identification	Equipment Class	Walkdown Item	Observations		
CV-31153	7 - Fluid Operated Valves	11 TD AFW Pump RECIRC/L-O CLG CV	No concerns		
CV-31652	7 - Fluid Operated Valves	11 CLG Water Strainer Backwash CV	Conduit clamp missing nut (judged not a seismic concern). CAP 1353581 initiated to evaluate this observation and WR83924 initiated to address observation. Also, CV-31652 F/R and CV-31653 F/R mounted with one screw - judged acceptable for seismic loading. Screws are not fully threaded but judged acceptable for seismic loading. CAP 1353368 has been initiated to evaluate this observation. Additionally, WR 83878 has been initiated to address this observation.		
D-1	20 - Instrumentation and Control Panels and Cabinets	Control Panel D-1	No concerns		
E-1	20 - Instrumentation and Control Panels and Cabinets	Control Panel E-1	Partition wall next to E-1 missing all 6 floor bolts. Vertical bolts are in place. CAP 1357500 initiated to evaluate this observation. Additionally, WR 84916 initiated to address this observation.		
MV-32017	8 - Motor Operated and Solenoid Operated Valves	L00P B Main Steam To 11 TD AFWP MV	No concerns		

Table E-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1				
Equipment Identification	Equipment Class	Walkdown Item	Observations	
MV-32077	8 - Motor Operated and Solenoid Operated Valves	Sump B To 11 RHR Pump Train A (Outside) MV	No concerns	
MV-32238	8 - Motor Operated and Solenoid Operated Valves	11 AFW TO 11 SG MV	Light fixture south of valve has open S-hook, judged not a seismic hazard.	
PNL 11	14 - Distribution Panels	Distribution Panel 11	No concerns	
RS-21-1	7 - Fluid Operated Valves	11 SG Main Steam Header Relief	No concerns	
SV-33694	8 - Motor Operated and Solenoid Operated Valves	11 SFGDS Screen- house Roof Exhaust Fan CD-34137 SV	No concerns	
VC-28-2	7 - Fluid Operated Valves	12 CHG Pump Discharge Relief	No concerns	

Table E-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1			
Area Walkdown Description	Observations		
Aux. Bldg. Northeast	Aux. bldg. special vent zone boundary line hanger rod in contact with component cooling line at hanger 1-CCH-185 - judged not a seismic concern; light fixture above VFD cabinets for 11 and 13 charging pumps close (1") to conduits running into top of VFDs - judged not a seismic concern by site engineering; duct tape needs to be removed from special vent zone line - CAP 1352391 was initiated to document this observation; two abandoned hanger rods exist above the component cooling line with hanger rod 1-RHRH-385 near MCC2K Bus 2 - no seismic concern per plant engineering. CAP 01352549 and WR 83712 were initiated to remove the hanger rods for personnel safety reasons.		
Aux. Bldg. 122 CRM Chiller	No concern		
SSCN Bldg. 12 DD CLWP	Status "N" - 121 filtered water strainer adjacent to the diesel oil day tank skid has corroded anchors (wet environment). The corrosion is not significant. Anchorage of the diesel driven cooling water pump also shows slight corrosion, as it is in a wet environment. CAP 1352851 was initiated to document this observation, and WR 83771 was initiated to address the corrosion.		
Turb. Bldg. 11 AFWP	Status "N" - Lighting has open S-hooks near TD AFW pump; CAP 1352001 initiated to evaluate this observation and WR 83556 initiated to address this observation. Missing fastener on guard for 121 Inst. Air compressor; CAP 1352975 initiated to evaluate observation; WR 83793 initiated to address observation. Chain fall for 2AF01301 can potentially strike MCC 1A BUS 1; CAP 1352961 has been initiated to evaluate observation and WR 83796 initiated to address observation.		
Turb. Bldg. 11 Battery Room	No concern		
Turb. Bldg. EDG D-1	Status "N" - possible open S-hook on a light fixture above the diesel generator control panel; CAP 1352001 initiated to evaluate the open S-hooks identified and WR 83556 initiated to address the observation.		

Table E-1: SWC and AWC	C Samples from Seismic Walkdown Inspection for Unit 1
Area Walkdown Description	Observations
Turb. Bldg. Bus 15	Status "N" - Emergency Light El. 15 has a missing wing nut; CAP 1352966 initiated to evaluate this observation and WR 83790 initiated to address observation. Large size flex conduit with a metal end held in place only with tie wraps; if the tie wraps failed under seismic loading, it is possible that the flex conduit would snap back to an uncoiled position and may impact the side of the RMU-113 cabinet. Site engineering has reviewed this observation and concluded there is no seismic concern. ITEM 6 CHECKED "Y" AND "N". Bus duct to breaker 15-3 (on the top of breaker 15-3) has a flange connection that has its east side one and a half inches lower than its west side; no seismic concern per site engineering. Above breaker 15-6, the conduit support attachment seems to be loose; it is connecting the conduit to the Unistrut; CAP 1353223 initiated to evaluate this observation and WR 83835 initiated to address this observation.

٦

#### SUNSI – WITHHOLD FROM PUBLIC DISCLOSURE Table F-1: SWC and AWC Samples from Seismic Walkdown Inspection for Unit 1

	Table L-1. Owo and Awo Samples from Science Wardown inspection for one f			
Area Walkdown Description	Observations			
Aux. Bldg. Control Room	Status "N" - Lighting diffusers are tied off to the support grid; Unit 1 and Unit 2 "C" panels have a fluorescent light fixture on chains too close (within 1"- 2") to the panel; CAP 01352209 initiated to evaluate this observation. A trash can next to the racks R23, R24, R13, and R14 are immediately adjacent to the racks, which violates the seismic housekeeping procedure; site engineering has reviewed this observation and concluded there is no seismic concern. A step ladder adjacent to racks R23, R24, R13 and R14 is too close to the racks; the wheels should be chocked. There were several open S-hooks on light fixtures; CAP 01352001 initiated to evaluate observation and WR 83556 initiated to address observation. Unit 1 and Unit 2 "E" panels have side panels that have slid out of position; this is a housekeeping issue and not a seismic concern; CAP 01352102 initiated to address observation. Fire extinguisher bracket 224 has a rotated bracket (into the insulation) and should be repaired; WR 83584 initiated to address observation. The following observations were judged not to be seismic concerns by site engineering: 1) The filing cabinets adjacent to the main control board in both Unit 1 and Unit 2 are close to the main control board, 2) A set of drawers next to the in-core logic selection switch panel are close to the panel, and 3) The cart adjacent to the Protection Systems III and the cart adjacent to cabinets RPI-1, -2, and -3 in Unit 1 are close to the equipment; the chain is not used to restrain the carts.			

# **Evaluation of Findings**

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.

The scaffolding and seismic housekeeping procedures were reviewed by the SWEs in order to gain a full understanding of the plant practices in regard to those procedures. There were no seismic concerns noted in Unit 1 with regard to scaffold erection. The scaffolds were properly tied off and braced, and properly tagged with respect to the procedure.

There were several seismic housekeeping issues identified during the walkdowns which are not in accordance with plant procedures. However, these did not result in any

potentially adverse seismic conditions being identified. The peer review team recommends training to the housekeeping procedures for the entire plant to refresh these practices in everyone's mind.

A number of lighting fixtures with open S-hooks were found in the plant; however, none of them resulted in any seismic issues as evidenced by reviewing the CAPs written (see Tables 5-2 and 5-3) during these walkdowns.

The peer reviewers consider the judgments made by the SWEs to be appropriate and in accordance with the SWG.

1

# **Review of Licensing Basis Assessments**

Tables 5-2 and 5-3 of the Seismic Walkdown Report provide a list of the issues encountered during the Unit 1 seismic walkdown inspections for the SWEL components and how they were addressed. If a PINGP CAP request was generated it is shown in the Tables. Interviews were conducted by Messrs. Bacon and Etre with the SWE inspection team on October 23 and 30, 2012, as well as November 5, 2012 to discuss the issues identified. No potentially adverse seismic conditions were identified that resulted in a seismic licensing basis evaluation. The peer reviewers concur with this outcome.

# **Review Final Submittal Report & Sign-off**

The entire final submittal report has been reviewed by Messrs. T. Bacon and M. Etre and found to meet the requirements of the EPRI 1025286 – Seismic Walkdown Guidance. The Peer Review determined that the objectives and requirements of the 50.54(f) letter<sup>1</sup> are met. Further, the efforts completed and documented within the final submittal report are in accordance with the EPRI guidance document.

<sup>&</sup>lt;sup>1</sup> 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**

Pe	Peer Review Checklist for SWEL #1 –Prairie Island Units 1 and 2						
Ins	tructions for	Completing Checklist					
Thi (SV be cha oth	ispeer review WEL) in accor- used to descrif- unged to addres er comments.	checklist may be used to document th dance with Section 6 Peer Review. To be any findings identified during the p ss those findings. Additional space is	the review of the Seisi The space below each peer review process a provided at the end o	nic Walkdown Equip a question in this chec nd how the SWEL ma of this checklist for do	ment List klist should ay have cumenting		
1. '	Were the five	safety functions adequately represented	ed in the SWEL 1 se	lection?	Y⊠ N□		
	The Peer I of the corr four safety are represe	Review Team reviewed the list of sele ect safety functions to the component / functions specified in the EPRI guid nuted. No comments.	ected equipment to va is. The Peer Review ance as well as the c	ilidate the assignment Team agrees that the ontainment function			
2. I	Does SWEL 1 attributes:	include an appropriate representation	n of items having the	following sample sele	ection		
a.	Various type	s of systems?			Y⊠ N□		
	The li unit. ' variou The f list.	st below shows the count of compone The Peer Review Team concluded tha is plant systems was represented. following is a summary of the samplin	nts in each of Prairie at there is a sufficient ng of equipment clas	Island's systems, per a sampling of the sified on the current			
	System	Title	Unit 1 - # Equip	Unit 2 - # Equip			
	AF		7	Q			
	AT	AUX START-UP/STDBY XFMRS	0	0			
	ВМ	SITE MISCELLANEOUS MAINTENANCE	3	3			
	CC	COMPONENT COOLING	1	1			
	CL	COOLING WATER	16	12			
	D1	D1 EMERGENCY DIESEL	10	Not Applicable			
	D2	D2 EMERGENCY DIESEL	0	Not Applicable			
	<u> </u>	DS EMERGENCY DIESEL	Not Applicable	8			
		DO EMERGENCY DIESEL	Not Applicable				
	EA EA	A 16KV ELECTRICAL	<u> </u>	<u> </u>			
	EA ER	4.10KV ELECTRICAL		2			
	EM	FVENT MONITORING	6	6			
	EX	240/120V MISC AUXILIARIES	4	4			

E-17

#### Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

#### Sheet 2 of 5

#### Peer Review Checklist for SWEL #1 - Prairie Island Units 1 and 2

System	Title	Unit 1 . # Equip in	Unit 2 = # Equip in
		Walkdown	Walkdown
FO	FUEL OIL	0	1
FW	FEEDWATER	0	0
IP	INSTRUMENT POWER SOURCES	4	4
MP	MISC PLANT INSTRUMENTS	1	0
MS	MAIN STEAM	2	3
NI	NUCLEAR INSTRUMENTATION	1	1
PI	ROD POSITION INDICATION	0	0
RC	REACTOR COOLANT	0	0
RE	REACTOR CONTROL	0	0
RH	RESIDUAL HEAT REMOVAL	0	0
RP	REACTOR PROTECTION	6	5
SA	STATION & INSTRUMENT AIR	1	0
SF	SPENT FUEL POOL COOLING	0	0
SI	SAFETY INJECTION	2	2
VC	CHEMICAL & VOLUME CONTROL	2	2
ZC	CONTAINMENT VENT	2	2
ZG	DIESEL ROOMS VENT	2	0
ZH	SAFEGUARDS CHILLED WATER	6	2
ZN	CONT/RELAY/CMPTR RM VENT	4	0
ZR	SCREENHOUSE VENT	3	1
ZX	CNTMT & AUX BLDG COOLING	4	5
	Totals:	107	94

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 the 11 and 12 Battery Chargers.

		Sheet 3 of 5
eer Revi	ew Checklist for SWEL #1 –Prairie Island Units 1 and 2	
	The Peer Review Team noted the following issues that require follow up:	
1	) 21 and 22 Batt Charger were not listed as new or replace.	
	<u>Response:</u> Latest version of SWEL has now identified these as "Yes" in the "New/Replace" column.	
c. Variou	is types of equipment?	Y⊠ N□
	The Peer Review Team reviewed the list of selected equipment against Appendix B of the EPRI Seismic Walkdown Guidance (1025286).	
	The Peer Review Team noted the following issues that required follow up:	
1)	It appears that there are no "Air Compressors" selected in SWEL 1. Appendix B lists Air Compressors as a class of equipment. Verify if "Air Compressors" need to be included.	
	<u>Response</u> : Equipment selected for walkdown in SWEL1 must be classified as Seismic Category 1 before being considered. The air compressors are not Seismic Category 1, therefore there are no air compressors (Equipment Class 12) included on SWEL1.	
2)	Will the Battery Room (11, 12, 21 & 22 BATT) walkdown include "Battery Racks" also? If not, consider including "Battery Racks" as recommended in Appendix B.	
	<u>Response</u> : The SWELs have been revised to clarify that the equipment description includes the battery racks as well as the batteries.	
3)	No equipment is selected from Safety Injection (SI) and RHR system?	
	<u>Response: It was decided that the SWELs for both units will now include</u> equipment from the SI system, although the original IPEEE submittal did not include this system as required in order to get to safe shutdown condition.	
4)	No components for the CC systems are selected for the walkdown. CC system provides support for RCP seal cooling (along with charging)	
	<u>Response:</u> The CC Pumps and a small number of relief valves are classified Seismic Category 1. We have added the 12 CC pump (145-122) and 22 CC pump (245-122) to the SWEL1 lists.	
5)	SF - RWST Purification pumps are Seismic Cat 1 but are not listed. (These could affect RWST supply to charging needed for loss of offsite power)	
	<u>Response:</u> These pumps [11 Refueling purification pump (195-091) and the 22 Refueling Water Purification Pump (295-091)] are classified as Non-Safety Related, Seismic Category 1. Operations Representative (P. Valtakis) confirmed the pump classification to be correct per Q-List rebaseline project. Since these pumps do not provide one of the 5 safety functions identified in EPRI 1025286	

## Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

	Sheet 4 of 5
eer Review Checklist for SWEL #1 –Prairie Island Units 1 and 2	
guidance, these pumps do not meet the criteria to be considered for seismic walkdown. Therefore these pumps will not be added to SWEL1.	
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 (EPRI report 1025286). The team determined that a reasonable effort was made to select equipment in different locations throughout the plant, and it meets the requirements from the EPRI guidance with respect to the various environments considered.	
e. Equipment enhanced based on the findings of the IPEEE (or equivalent) program?	Y⊠ N□
The Peer Review Team noted that some equipment selected for walkdown on SWEL1 were also identified as equipment enhanced as a result of the IPEEE effort This meets the requirement from the EPRI guidance to select a sample of IPEEE enhancements.	
f. Were risk insights considered in the development of SWEL 1?	Y⊠ N□
The Peer Review Team reviewed the list of the top 50 risk significant equipment items from the SWELs. Roughly 18 of the 200+ equipment listed on the Prairie Island SWELs have ties to the top 50 risk significant systems. The team concluded this was a strong sample and was well documented.	d
For SWEL 2:	<u> </u>
a. Were spent fuel pool related items considered, and if applicable included in SWEL 2? No comments	Y⊠ N□
b. Was an appropriate justification documented for spent fuel pool related items not included	Y⊠ N□
There are SFP related equipment included in SWEL 2, therefore no justification is required	l.

. . . . . . . . .

## Prairie Island Nuclear Generating Plant - Unit 1 Seismic Walkdown Submittal Report

4. Provide	any other comments related to the peer review of the SWELs.		· · · · ·
5. Have al	beer review comments been adequately addressed in the final SWEL?		YM NO
Peer Reviewer #1:	Sieve Seilliymer (Ops)	Date:	10-26-12
Reviewer #2:	Dileen Cherlopalle (Design Eng.) C. N. Dilee prover ally	Date:	10-22-12

E-21

# **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.

The AWCs 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 F-1: Disposition of Seismic Walkdown Observations				
Walkdown Checklist	Question No.	Observation	Disposition	
55000	11	Bottom latch has some apparent deterioration degradation due to engine vibration. This condition does not affect seismic capacity; however, recommend repair for maintenance purposes.	CAP 1353290 has been initiated to evaluate this observation. WR 83855 has also been initiated to address this observation.	
57304	8	The light fixture in the vicinity of the control panel has an open "S" hook connecting the fixture to its chain at the bottom and at the ceiling connection. Both "S" hooks are open. The light fixture could fall under seismic loading and strike SV-5730419 and CS- 5731407 and SA-111-13.	CAP 1352001 has been initiated to evaluate the open "S" hooks identified during these walkdowns. In addition to the action request, WR 83556 has been initiated to address this observation.	
034-011	7	Some light fixtures in the area have open "S" hooks, but these light fixtures are not near enough air lines to be a credible hazard. The "S" hooks should be closed for maintenance purposes.	CAP 1352001 has been initiated to evaluate the open "S" hooks observed during the walkdowns. In addition to writing an action request, WR 83556 has been initiated to address the observations.	
069-242	8	One light fixture has an open "S" hook on the bottom connection of the chain. Under earthquake conditions SWEs judge that the light fixture will drop off the open "S" hook and swing into the filter. SWEs judged that impact is credible but not significant. The light fixture will not impact the soft target of the glass window. Therefore, the safety function is not impaired.	CAP 01352001 has been initiated to evaluate the open "S" hooks identified during these walkdowns. In addition to writing an action request, WR 83556 has been initiated to address this observation.	

Table F-1: Disposition of Seismic Walkdown Observations				
Walkdown Checklist	Question No.	Observation	Disposition	
111M/XFMR	Comments	There is a coil of cable that looks like it is coiled up using electrical tape. This is not a seismic issue with 111M XFMR.	CAP 01353147 has been initiated to evaluate this observation. In addition to the action request, WR 83841 has been initiated to address this observation.	
112M/XFMR	7	Some "S" hooks may be open on lighting fixtures but they are not a credible hazard to the transformer.	CAP 01352001 has been initiated to evaluate the open "S" hooks identified during the walkdowns. In addition to writing this action request, WR 83556 has been initiated to address this observation.	
125MR	8	Overhead air handling unit is supported by three rod hangers. One rod hanger is a cross member and is not positively secured to air handler casing.	It was determined by reviewing the vendor technical manual that if the end trapeze support were to become dislodged the remaining supports would be capable of supporting the load of the unit and this does not create a seismic interaction concern.	
145-042	7	There are open "S" hooks on lighting fixtures but they are not deemed a credible hazard to the charging pumps.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
145-122	Comments	Foreign material (black insulation 1" x 2" x 8") found behind the 12 CC pump at column base 1-CCH-375 (support number).	CAP 1352321 issued to address FME problems.	

	Table F-1: Disposition of Seismic Walkdown Observations				
Walkdown Checklist	Question No.	Observation	Disposition		
174-031	10	The insulation for the 15 SWGR RM unit cooler return line is touching an adjacent 4" diameter conduit. This location is between the unit cooler and the wall.	The insulation appears to have been cut out to accommodate the insulation. There would be no metal to metal interaction during a seismic event. This configuration is acceptable.		
B15 LOGIC- 2	8	A light fixture is touching the electrical conduits feeding the Bus 15 Logic Relay cabinet 2, which contains essential relays.	The contact of the light is at the connection of the chain. There will be no hard impact and there is a conduit support adjacent to the location. The light will not impact the function of the equipment, so there is no seismic concern.		
B15 LOGIC- 2	Comments	Foreign material was found inside the cabinet at the bottom (one screw and a piece of wire insulation).	WR 83773 has been initiated to remove the foreign material inside the cabinet.		
CV-31059	7	The light fixture has an open "S" hook. The remaining chain will ensure the equipment is not impacted, so there is no seismic concern.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.		
CV-31652	11	The conduit feeding power to CV-31652 has one conduit clamp that is missing a nut. SWE's judge existing conduit configuration is still seismically adequate and acceptable. However, it is recommended that the nut is put back on.	CAP 1353581 has been initiated to evaluate this observation. Additionally, WR83924 has been imitated to address this observation.		

Table F-1: Disposition of Seismic Walkdown Observations			
Walkdown Checklist	Question No.	Observation	Disposition
CV-31652	Comments	SWEs noted that CV-31652 F/R and CV-31653 F/R are mounted to a single vertical Unistrut with just one machine screw. The machine screws are not fully threaded into their associated nuts. Instead they are approximately half threaded into the nuts. SWEs judge current configuration as acceptable for seismic loading, but full thread engagement is needed.	CAP 1353368 has been initiated to evaluate this observation. Additionally, WR 83878 has been initiated to address this observation.
CV-39401	10	It appears that CV-39401 is in close proximity to or touching some rigid conduits. The conduits feed power to CV-39404 (12 FCU CHLD WATER SPPLY CV). During a seismic event, the valve may come into contact with the conduits.	A plant calculation evaluates the pipe stress on the affected line. All the displacements in the calculation are well below the actual distance between the actuator and the conduit. The configuration in the field is acceptable. There is no seismic concern.
E-1	Comments	The partition wall next to E-1 is missing all six floor bolts. The bolts connecting the partition wall to the vertical walls are in place. Is the partition wall seismically qualified in this configuration?	Bolts along the panel bottom would be attached to the false floor. These bolts would not provide significant strength but could aid in keeping the end of the partition next to the 22 miscellaneous rack from moving. This rack is not safety related and has a gap of 1", so there would be no impact to the rack. The remaining sides of the partition door and frame are firmly attached to the walls and would not be allowed to displace under seismic conditions. CAP 1357500 and WR 84916 were written to document and correct the configuration discrepancy.

	Table F-1: Disposition of Seismic Walkdown Observations			
Walkdown Checklist	Question No.	Observation	Disposition	
EM-B1	11	On the inside of EM-B1 there is a single screw and washer missing from the left vertical support. The remaining two screws and washers are present.	Site engineering reviewed this condition, and determined it is not a seismic concern. However, WR 83653 has been initiated to correct the condition.	
MCC 1T2- XFR SW	8	Regarding the light fixture, both of the bottom "S" hooks are open. During a seismic event the light fixture may fall on to the lever of the MCC IT2 transfer switch and may trip the equipment. The light fixture is 52" above the disconnect which appears to be right underneath the light fixture. The power cord is hard wired to the ceiling and appears to have some slack.	CAP 1352001 has been initiated to evaluate the open "S" hooks identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address this observation.	
MCC 1T2- XFR SW	Comments	There is foreign material behind the transfer switch 1, near the wall (an O ring that is red in color). It is a housekeeping issue, and not a seismic concern.	CAP 1352321 has been initiated to address the foreign material identified during these walkdowns.	
MV-32145	8	A light fixture in the area has open "S" hook. MV- 32145 is not in its zone of influence, therefore no adverse seismic interaction concern	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
MV-32238	7	A light fixture south of the valve has an open "S" hook, but it is not a seismic hazard.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	

Table F-1: Disposition of Seismic Walkdown Observations			
Walkdown Checklist	Question No.	Observation	Disposition
MV-32381	10	The valve bodies of MV-32381 and MV-32382 are approximately 1/8" apart and may interact based on piping analysis displacement.	Plant engineering evaluated this comment and concluded there is no seismic hazard interaction. These lines are analyzed within a pipe stress calculation.
053-321	2	The day tank foundation has eight (7/8" diameter) anchors. One of these anchors appears to not be fully seated.	CAP 01352845 has been initiated to evaluate this observation. In addition to writing an action request, WR 83768 had been initiated to address this observation.
035-012	Comments	There is a small area with concrete spalling (about 1" by 3" and 1/4" deep). It is not a seismic concern.	It was determined that this is an original construction defect. The condition is less than 3/8 of an inch in depth and does not require correction. It is not a seismic concern.
035-012	Comments	There is an abandoned hanger rod in the ceiling (red tape on the tip) above HX.	It is not a seismic concern, but CAP 01352373 has been initiated to evaluate this observation for potential personnel safety when assembling scaffolds or performing overhead work. Off of this action request, WR 83651 has been initiated to address this observation.
035-012	Comments	It appears that the valve CC-43-2 has a tie wrap around it for a wheel lock.	The valve is tagged "CLOSED" with a Danger tag under a clearance order. As allowed by plant procedures, tie wraps are commonly used as the second means when tagging out valves at PINGP by the Operations department. It is not a seismic or safety concern.

Table F-1: Disposition of Seismic Walkdown Observations			
Walkdown Checklist	Question No.	Observation	Disposition
035-012	Comments	There is a bolt missing in a base plate next to MCC 1GA BUS 1.	WR 83744 has been issued to replace the missing nut. CAP 01352717 has been issued to document the discrepancy. The MCC is not safety related and the missing nut will not have any effect on operability or functionality of the adjacent MCC. It also does not pose any safety hazard.
045-102	11	The yoke pins for SF-26-2 and SF-26-4 do not have a retaining mechanism (cotter pin, bolt, etc.).	The packing eye bolt pins are commonly used by many valve companies. Some valve companies tack weld the packing eyebolt to the eye bolt pin and other companies use a tapered eye bolt pin to keep it secured in the eye bolt. Therefore, the eye bolts are acceptable as is and there is no seismic concern.

	Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition	
AUX 11/12 CNMT SPRAY	Comments	The drip pan beneath the 12 containment spray pump is missing a bolt on the south side.	CAP 01353388 has been initiated to evaluate this observation. In addition to writing an action request, WR 83885 has been initiated to address this observation.	
AUX 11/12 SI PUMPS	1	The pressure gauge wall bracket (1B351) next to electric panel JB A1813 in 125E pump room is missing one out of four bolts. The bolts appear to be sheared off.	Plant engineering reviewed this observation and concluded that the bracket is functional. This pressure gauge is non- safety related, and was originally constructed with only three bolts. The three bolts are adequate to support the seismic load.	
AUX 11/12 SI PUMPS	Comments	There were 3 plastic barrels tied with a rope to a 6" SS pipe next to 11RWST. It needs to be verified that this is acceptable to tie them to this pipe.	The barrels are tied to the floor drain piping, as shown in plant drawings. The floor drain piping is non-safety related and acceptable to tie off the barrels. No action is required, because it is not a seismic concern.	
AUX 12 CHRG PUMP	3	The lighting fixtures in the area have open "S" hooks but these are not deemed a seismic hazard.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
AUX 12 CHRG PUMP	7	The chiller in the area has missing bolts on the shroud.	The fan coil unit cooler is not safety related, and is not directly above the 12 charging pump. Therefore, there is no seismic concern. However, WR 84671 has been initiated to address this observation on the chiller.	

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX 12/22 CC PUMP	4	The 22 component cooling pump motor unit cooler is supported by rod hangers from the ceiling. This is located near the 22 component cooling pump, 6 feet above the 695' floor. This unit cooler is close to the rigging I-beam on one side of 4" component cooling lines on the other side. The hanger number is 2- RHRA-443 and it supports the component cooling line and the valve 2ZE-3-4. Seismic movement may cause the unit cooler to bump into the I-Beam and the component cooling lines. The drain line from the unit cooler may break as well.	The unit cooler is not safety related, so there is no seismic concern.
AUX 12/22 CC PUMP	Comments	A top cover plate wing nut is missing from the 2RE- 39 radiation monitor. There is also a loose screw on the side door cover. The monitor is resting on the floor near the wall, and is located between the 22 component cooling pump and the stairs to the upper level.	The radiation monitor is not safety related. WR 83571 was initiated to replace the wing nut and tighten the loose screw. CAP 01352076 was initiated to document the observation.
AUX NORTH EAST	4	The light fixture above the "VFD" cabinets for 11 and 13 charging pumps is close (roughly 1" gap) to the conduits running into the top of the VFDs.	Plant engineering reviewed this observation and determined that the light fixture located above VFD cabinets for 11 & 13 CHG pumps is not 1" from the cabinets, rather 1" from the conduits coming out of the top of the cabinet. The conduit supports were designed to I/I criteria and the VFDs were installed seismic II/I to prevent movement which could cause damage during a seismic event. The conduit and associated cables are not expected to break from the impact of the light fixture, rather the bulb in the fixture will likely break. CAP 1352209 was previously written to evaluate changing out all fluorescent lights to a shatter resistant bulb style.
AUX NORTH EAST	7	Duct tape needs to be removed from the special vent zone line discussed in question 4.	The foreign material on the special vent line is a housekeeping issue and has no impact on the equipment. CAP 1352391 was initiated to document this observation.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX NORTH EAST	7	There are two abandoned hanger rods above the component cooling line with hanger rod 1-RHRH-385 near MCC2K BUS 2.	Plant engineering evaluated the two abandoned hanger rods and concluded there were no seismic concerns. However, CAP 01352549 and WR 83712 were initiated to remove the hanger rods for personnel safety reasons during scaffold construction or overhead work.
AUX NORTH EAST	7	There were scaffold carts within 2° of touching the MCC 1L, Bus 2. The cart wheels are chocked but in the wrong orientation. The cart configuration allowed the cart to slide into the MCC. The condition was fixed upon discovery. Site personnel chocked the wheels in the acceptable orientation.	CAP 1355467 has been initiated to document this condition.
AUX 11 RWST	3	There is an abandoned light fixture behind the MCG/J Bus with open "S" hooks.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.
AUX 11 RWST	4	There is also a disconnected light fixture chain near panel 191.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.
AUX 11 RWST	4	There are open "S" hooks on a light fixture above the PT-948 panel.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX RELAY	1	Terminal Box - A1749 (terminal box for high flux) is missing an anchor bolt to wall at the lower right corner. There are three other bolts, therefore SWEL judged that the terminal bolt is seismically anchored to the wall and is acceptable.	WR 83891 has been initiated to address the missing anchor bolt.
AUX SOUTH EAST	1	An anchor bolt is missing on pipe support number 1- CCH-311.	Per the component drawing XH-106-7271, there are only three bolts required for this support. This was document on the as- built EC-17951. Calculation 1-CCH-311 documents the need for only 3 bolts. The support is operable.
AUX SOUTH EAST	2	An anchor is missing on a stanchion beneath the 121 Loop "A" Main Steam isolation valve drain line.	CAP 1353371 has been initiated to evaluate this observation. Additionally, WR 83874 has been initiated to address this observation.
AUX SOUTH EAST	4	There is an abandoned light fixture in the overhead near pipe support 1-CCH-311. It is unattached and should be removed.	CAP 1353409 has been initiated to evaluate this observation. Additionally, WR 83892 has been initiated to address this observation.
AUX 112 BUS	4	There are open "S" hooks on light fixtures. The light fixtures could be a hazard to Bus 112, but not the transformer.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.
AUX 122 BUS	1	The unit cooler in the 122 BUS room has a brace that is attached to the wall with four base plates. One of the plates seems to be bent and there is a 1/4" gap between the plate and the wall.	Plant engineering evaluated this observation and concluded that the gap was not a seismic concern. Warping of ¼ inch for surface mounted base plates is allowed, per plant procedures.

.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX 122 BUS	5	The unit cooler supply and return lines (hanger number 1-RHRH-656) are unsupported laterally across the entire room. If the line breaks during a seismic event, there are no floor drains in the room and flooding may occur.	This condition was previously evaluated in a plant calculation which performed a determination of seismic adequacy of ZH system pressure boundary in the Event Monitoring Rooms and other locations within the plant. No additional review is required based on the identified plant documentation. There is no seismic concern.
AUX A E-MON	1	Behind the cabinet RMU2N, one wing nut holding the emergency battery EL-28 is missing.	EL-28 is a non-safety related light. It is located in the train A event monitoring room. The event monitoring equipment located in this room is within cabinets and would not be impacted should the light fall during a seismic event. WR 83724 was initiated to replace the missing nut.
AUX B E-MON	4	The light fixture hanging from the ceiling is about 3" to 6" from an electrical box that is connected to panel 219. During a seismic event the fixture may hit the electrical box.	Molded case circuit breakers are generically considered to be non-vulnerable to contact chatter because of the significant seismic forces required to spuriously operate these devices. Any force imparted by the light fixture falling on the panel would be less significant than the seismic motion of the panel itself. As the panel and breakers are designed to withstand the design basis seismic event, the small impact due to the failure of a light fixture would not affect breaker operation. It is not a seismic concern.
AUX B E-MON	5	If the unit cooler supply and return lines break during a seismic event, it may result in flooding the room. There is no floor drain in the train B event monitoring room. Reference hangers 2-RHRH-453, 2-RHRH- 448, 2-RHRH-449, and 2-RHRH-454.	This condition was previously evaluated in a plant calculation which performed a determination of seismic adequacy of ZH system pressure boundary in the Event Monitoring Rooms and other locations within the plant. No additional review is required based on the identified plant documentation. There is no seismic concern.

	Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition	
AUX DEMIN	4	A light fixture has an open "S" hook near FWH-67. The fixture is not near any equipment, so no action is needed.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
AUX DEMIN	4	There are light fixtures with open "S" hooks near the loop "A" main steam safety header.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
AUX DEMIN	6	A wood 10"x20" insert on the floor next to the grating is a combustible.	CAP 1353367 has been initiated to evaluate this observation. Additionally, WR 83876 was initiated to address the observation.	
AUX DEMIN	8	The cable trays adjacent to the south wall house cables which are resting on top of, and out of, a tray that is unrestrained laterally.	This configuration does not meet the guidelines for abandoning cables. Therefore, CAP 1353415 has been initiated to evaluate this observation. Additionally, WR 83893 was initiated to correct this condition. No equipment is impacted by the loose cable.	
AUX EAST	4	There are open "S" hooks on the lighting in the area above MV-32024. This is not a seismic concern as the lighting will not adversely affect MV-32024.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
AUX EAST	8	There are two loose ¼" concrete anchors on the bracket supporting PI-17652.	WR 83868 has been initiated to address the observation.	

F-13

	Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition	
SSCN 12 DD CLWP	1	121 filtered water strainer adjacent to the diesel oil day tank skid has corroded anchors (wet environment). The corrosion is not significant and only requires cleaning and re-coating. The anchorage of the diesel driven cooling water pump also shows slight corrosion, as it is in a wet environment.	CAP 1352851 was initiated to document this observation, and WR 83771 was initiated to address the corrosion.	
TURB 11 AFWP	1	There is a missing fastener on the guard for 121 instrument air compressor.	CAP 1352975 has been initiated to evaluate this observation. Additionally, WR 83793 has been initiated to address this observation.	
TURB 11 AFWP	4	There are open "S" hooks on the lighting fixtures near the 11 turbine driven auxiliary feedwater pump. The light fixtures would only swing, and would not impact equipment other than nearby piping or conduits. It is not a seismic concern.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.	
TURB 11 AFWP	7	The chain fall for 2AF01301 can potentially strike MCC 1A BUS 1.	CAP 1352961 has been initiated to evaluate this observation. Additionally, WR 83796 has been initiated to address this observation.	
TURB 12 BATT	7	The eyewash station is adequately secured to the wall. Water supply on the cart is secured with a bungee cord.	Plant engineering reviewed the restraint for the water supply to the eyewash station and concluded that the bungee cord was an acceptable means of restraining the canister.	
TURB 12 BATT	8	As a precaution, the SWEs recommend closing the door pulley "S" hook above door 228.	CAP 1352343 and WR 83645 have been initiated to address this observation.	

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
TURB EDG D-1	4	There Is a possible open "S" hook on a light fixture above the diesel generator control panel.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.
TURB BUS 111	1	There is a gap between the base plate walls for unit cooler. The anchor bolts seem to be tight. Will need to verify if this is acceptable per procedure.	Based on the stated allowed warping of ¼ inch for surface mounted base plates contained in plant guidance, this is considered acceptable.
TURB' BUS 111	1	The back cover bolts are loose for 111M voltage regulator cabinet.	The transformer does not contain any sensitive or essential relays that might be impacted by any small vibration of the panel cover. The function of the transformer is not impacted. WR 83828 was generated to tighten the loose bolts and correct the condition. It is not a seismic concern.
TURB BUS 111	1	A conduit box is attached to Unistrut, and both screws are loose. They are located approximately 10' from the floor and above the voltage regulator.	While the bolt may not be fully tightened, it will ensure the box remains attached to the strut. No equipment function will be impacted. WR 83834 was initiated to tighten the conduit box to the strut. There is no seismic concern.
TURB BUS 111	3	Vertical rigid conduit to box CS19148 (BUS 111 safeguards SWGR unit cooler) and Panel 132-10 has a conduit clamp not attached to the conduit. Located on column E9, it has a misplaced loose attachment at about 10' from floor underneath duct.	Based on a review of the vertical conduit run, the other supports would take the load normally restrained by this conduit clamp. The safety functions of the equipment were not impacted. WR 83829 was initiated to re-attach the clamp to the conduit.
TURB BUS 111	3	The conduit bracket attached to the Unistrut for the conduit running to 480V Bus 111 and 112 control panel seems to be loose with a gap between the bracket and the Unistrut.	The loose bolt was identified to be only on one side of the clamp. The condition still had the clamp tight to the conduit, but did not have the clamp ear tight to the strut attachment. The conduit remained restrained, and did not impact the safety function of the equipment. WR 83833 has been initiated to tighten the loose bolt.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
TURB BUS 111	3	One of the two supports for a light fixture is loose from the wall and the upper anchor bolt for the support is not fully engaged. SWEs judged that the light fixture will remain in place, but recommend that the bolt be tightened.	WR 83834 has been initiated to address this observation.
TURB BUS 111	3	The conduit support on top of the RMU 213 cabinet, on the west wall, has a bolt that is not fully engaged. The support is located about 10' from floor level.	Based on the small load compared to the capacity of the anchors, there is no impact on the equipment's safety functions. WR 83836 was generated to tighten the bolt on the conduit support.
TURB BUS 111	3	An electrical wire is tie wrapped to the conduit above door 54, next to an electrical cable tray.	CAP 1353147 was initiated to document the cable not configured per plant engineering manual. Additionally, WR 83841 was initiated to place the abandoned cable in the correct configuration. The strength of the tape is considered to be capable of restraining the small coil of wire, and it does not impact any equipment functions. There is no seismic concern.
TURB BUS 111	7	A light fixture may come in contact with the flexible conduit going into the 11A transformer. It is located on top of 11A transformer with only 2" of clearance.	CAP 1353277 has been initiated to evaluate this observation.
TURB BUS 15	1	The emergency light EL15, located on the safety related block wall number 26 and above the test station for the breaker cabinets, has a missing wing nut on the one side for the threaded rod holding EL15 on the wall bracket.	The one remaining tie rod will ensure the battery does not come out of the tray. There is no impact to the equipment function based on this condition. However, CAP 1352966 was initiated to document the condition of the light. Additionally, WR 83790 has been initiated to replace the missing wing nut.

.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
TURB BUS 15	4	A large size flex conduit with a metal end is held in place only with tie wraps. If the tie wraps failed under seismic loading, it is possible that the flex conduit would snap back to an uncoiled position and may impact the side of the RMU-113 cabinet.	The abandoned cable was walked down and its installation compared to plant procedures. The cables are marked and coiled in accordance with this instruction.
TURB BUS 15	8	The bus duct to breaker 15-3 (on the top of breaker 15-3) has a flange connection that has its east side one and a half inch lower than its west side.	The collar protects an expansion joint for the bus duct. The expansion joint consists of a flexible material which is adhesively attached to the two sections. A collar is placed over this joint to provide physical protection and is not required to maintain integrity of the joint. There is no seismic concern.
TURB BUS 15	8	Above breaker 15-6, the conduit support attachment seems to be loose. It is connecting the conduit to the Unistrut.	CAP 1353223 has been initiated to evaluate this observation. Additionally, WR 83835 has been initiated to address this observation.
TURB ROD DRIVE	4	There is an open "S" hook for the light fixture above terminal box A1723 for non-safety related room cooling. There is no seismic interaction concern.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.
TURB ROD DRIVE	5	Supply and return lines to the MTR 154-46 11 rod drive air handler blower have no lateral restraint (rod hung). The blower also has no lateral restraint (three rod trapeze hangers). There may be a potentially large movement at the blower.	The trapeze that is not physically fastened is at the far end of the evaporator unit, which does not contain any equipment of notable weight in relation to the remaining equipment. It is determined that if the end trapeze support were to become dislodged, the remaining supports would be capable of supporting the load of the unit and this does not create a seismic interaction concern.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX 11/21 CC PUMP	1	It appears that CS-19543 is not anchored to the wall. There are four external holes in the bracket for fasteners but no fasteners are present.	The switch is connected to rigid conduit. CS-19543 is part of an active engineering change. As a result, the switch has not been classified, and the system is not yet turned over to Operations. Additionally, the SWEs judge that the length of rigid conduit currently holding CS-19543 in place is an acceptable seismic restraint with respect to seismic interaction of the switch with other pieces of equipment in its vicinity. It is not a seismic concern.
AUX 11/21 CC PUMP	7	Two drums are present under the component cooling heat exchanger to collect leak off. The drums are poorly tied off by rope to a small copper drain line for the 11 component cooling pump unit cooler.	CAP 01353280 has been initiated to evaluate this observation. In addition to writing the action request, WR 83853 has been initiated to address the observation.
AUX 11/21 CC PUMP	8	One of the two floor brackets for the Unistrut that supports the component cooling motor power cables appears to be bent and the anchor is loose. There is a tygon tube wedged under the corner.	CAP 1353327 has been initiated to evaluate this observation. In addition to writing the action request, WR 83865 has been initiated to address the observation.
AUX CONTROL ROOM	4	There are lighting diffusers tied off to the support grid. Unit 1 and Unit 2 "C" panels have a fluorescent light fixture on chains too close (within 1"-2") to the panel.	CAP 01352209 has been initiated to evaluate this observation.
AUX CONTROL ROOM	7	The trash can next to the racks R23, R24, R13, and R14 are immediately adjacent to the racks, which violates the seismic housekeeping procedure.	The trash cans are located next to non-safety related miscellaneous racks. This condition is acceptable per site procedure guidance. There is no seismic concern.
AUX CONTROL ROOM	7	There were several open S-hooks on light fixtures (nearest the panel in most cases).	CAP 01352001 was initiated to evaluate this observation. Off of CAP 01352001, WR 83556 was initiated to address this observation.

.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX CONTROL ROOM	7	Step ladder adjacent to racks R23, R24, R13 and R14 is also too close to the racks. The wheels should be chocked.	The trash cans are located next to non-safety related miscellaneous racks. There is no impact to the equipment. However, all wheeled carts should be chocked. The FIN team has been notified to chock the wheels.
AUX CONTROL ROOM	8	Unit 1 and Unit 2 "E" panels have side panels that have slid out of position. This is a housekeeping issue and not a seismic concern.	CAP 01352102 has been initiated to evaluate this observation. In addition to writing an action request, WR 83579 has been initiated to address this observation.
AUX CONTROL ROOM	Comments	Fire extinguisher bracket 224 has a rotated bracket (into the insulation) and should be repaired.	The fire extinguisher is not located near equipment that could be impacted if the fire extinguisher came free from its mounting bracket. WR 83584 was written to replace the mounting bracket.
AUX CONTROL ROOM	Comments	The filing cabinets adjacent to the main control board in both Unit 1 and Unit 2 are close to the main control board.	This condition does not meet the seismic housekeeping procedures; therefore CAP 1357683 has been initiated to evaluate this observation. There is no adverse seismic concerns.
AUX CONTROL ROOM	Comments	A set of drawers next to the in-core logic selection switch panel are close to the panel.	The drawers have a small mass and are located on the floor of the control room. The aspect ratio was determined to be greater than two and it will not slide across the carpeted floor. If the drawers did slide out in a seismic event, they would not impact any equipment. Therefore, there is no seismic concern.

F-19

.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX CONTROL ROOM	Comments	The cart adjacent to the Protection Systems III and the cart adjacent to cabinets RPI-1, -2, and -3 in Unit 1 are close to the equipment. The chain is not used to restrain the carts.	The cart adjacent to the Protection System III supports a computer and monitor. The computer and monitor are securely fastened to the cart and the cart has been secured per procedures, so there is no seismic concern. However, the top of the monitor slightly exceeds the aspect ratio defined per the seismic housekeeping procedure. CAP 1357686 was initiated to address the observation. The cart will not affect equipment in the area. As for the cart adjacent to RPI-1, -2, and -3, plant engineering noted that one restraint is not currently being used. The cart for this restraint is secured in three other locations and by a wheel chock. The cart is sufficiently restrained and will not affect equipment in the area. It is not a seismic concern.
AUX SFP HX 122	1	The Unistrut support for panel 1LPB-4 and 1RPB3 seems to have no anchor bolts on one of the legs. There are anchor bolts for the other leg. The leg might have poor quality fillet welds. 1LPB-4 is mounted on a Unistrut frame that also supports 1RPB3 and the three transformers above. The Unistrut frame is clip angled to a structural column in three places and is welded to an I-beam at both ends. If there is no fillet weld on the left leg, the frame is still seismically adequate and will not pry off the wall and impact MCC 1GA Bus 1.	CAP 01352426 has been initiated to document the missing anchors and WR 83676 was initiated to install anchors for the leg that's missing anchors.
AUX SFP HX 122	Comments	The cover plate on the end of the MCC 1GA BUS 2 cabinet is missing a bolt.	CAP 01352415 has been initiated to evaluate the observation. In addition, WR 83671 has been initiated to address the condition.
AUX SFP HX 122	Comments	There are open "S" hooks for lighting fixtures in some of the locations in the heat exchanger area.	CAP 1352001 has been initiated to evaluate the open "S" hooks on light fixtures which have been identified during these walkdowns. In addition to this action request, WR 83556 has been initiated to address these observations.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX SFP HX 122	Comments	A single light fixture has duct tape and it needs to be removed for housekeeping.	CAP 1352391 has been initiated to address this foreign material.
AUX SFP HX 122	Comments	The 122 spent fuel pool heat exchanger component cooling inlet line has two ultrasonic flow measurement devices strapped to the pipe with a metal strap.	The devices are shown as installed on the pipe with a mounting strap kit per the described field installation in the vendor technical manual. The mounting is considered acceptable and will have no seismic impact.
AUX SFP HX 122	Comments	There is scaffolding tied to the spent fuel pool heat exchanger 122. One of the scaffold couplers is within 1" of touching CC-43-7.	CAP 1352559 has been initiated to evaluate this observation.
AUX SFP PUMP 122	7	There are stored Operations test equipment above the electrical cabinet 1RPB6 next to the 121 spent fuel pool pump. Also, there are electrical wires loosely tied around the piping next to the 184 entry door.	WR 83723 was written to secure the instrumentation and cabling in accordance with site procedures. CAP 1352586 was written to address the long term equipment configuration control issue.
AUX SFP PUMP 122	8	A 3" copper line is running along the ceiling above 121 and 122 pumps. It has beam clamps in the same direction and a broken hanger rod. This configuration may be vulnerable in a seismic event.	CAP 1352733 was written to document this observation, and WR 83747 was initiated to re-attach the broken support.

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX SFP PUMP 122	Comments	There are four maintenance stands (CTV upper frame stands) about 5' high with four legs. One of the cabinets is next to the steam heating line, and it is not tied down to any structural member.	The stands are located in the southeast corner of the fuel handling building next to two heating system lines. The stands are not secured, and could move during a seismic event. They may cause failure of the heating lines. The area that the stands are located is considered a harsh area, as there are four high energy line break (HELB) doors that are designed to discharge steam from a HELB into this area. The amount of steam coming through these doors into the fuel handling area from a HELB would bound a break from these heating system lines. There is no seismic concern.
AUX SFP PUMP 122	Comments	The radiation protection stands with signs for contaminated area are close to the 121 spent fuel pool pump and could potentially impact the glass oil bubbler on the pump. One stand is not rolled, and the other stand is not taped.	The 121 SFP Pump (Component ID 045-101) is not safety related. Per the vendor manual for the pump, the oil glass is for level control only. The rest of the constant level oiler is steel and will maintain oil in the reservoir if the glass portion is lost. In the event the glass were broken, the condition would be noticed by Operators on routine rounds prior to oil level in the bearing housing reaching an unacceptably low level. It is not a seismic concern.
AUX SFP PUMP 122	Comments	There is lead radiation protection shielding chained to the wall near the spent fuel pool skimming pumps. If the shielding falls, it could potentially damage the tubing.	CAP 1352586 has been initiated to evaluate this observation. WR 83641 has been initiated to improve the shielding tie-off.
AUX SFP PUMP 122	Comments	A fire protection valve near the ceiling is using a tie wrap to hold the valve handle in position.	The valve is tagged "CLOSED" with a Danger tag under a clearance order. As allowed by plant procedures, tie wraps are commonly used as the second means when tagging out valves at PINGP by the Operations department. It is not a seismic or safety concern.
## -SUNSI - WITHHOLD FROM PUBLIC DISCLOSURE -----

Table F-2: Disposition of Area Walk-By Observations			
Area Walk by Checklist	Question No.	Observation	Disposition
AUX SFP PUMP 122	Comments	The 121 spent fuel pump has a cover between the motor and the pump that is tied with two metal tie wraps. This cover is a radiation protection shield and has no impact on the pump.	It is not a seismic concern.