

Regulatory Commitments Table

Commitment	Due Date	Action Request
OPPD will complete a walkdown of the eight items deferred due to inaccessibility.	April 1, 2013	51964-09
OPPD will provide an updated seismic walkdown report.	July 1, 2013	51964-11

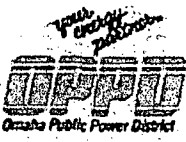

Status of Condition Reports Listed in Attachment 11.4 of EA12-021

Condition Report	Operability Determination	Resolution Status as of 11/23/12	CR Status as of 11/23/12
CR 2012-10195	Operable	Resolved	Closed
CR 2012-10198	Operable	Resolved	Awaiting Closure
CR 2012-10367	Operable	Resolution Proposed	Open
CR 2012-10368	Operable	Resolution Undetermined	Open
CR 2012-10369	Operable	Resolved	Awaiting Closure
CR 2012-10423	Operable	Resolved	Awaiting Closure
CR 2012-10425	Operable	Resolution Undetermined	Open
CR 2012-10427	Operable	Resolution Undetermined	Open
CR 2012-10553	Operable	Resolution Undetermined	Open
CR 2012-10628	Operable	Resolved	Closed
CR 2012-10629	Operable	Resolved	Closed
CR 2012-10630	Operable	Resolved	Closed
CR 2012-10631	Operable	Resolved	Awaiting Closure
CR 2012-10672	Operable	Resolved	Closed
CR 2012-10676	Operable	Resolution Proposed	Open
CR 2012-10684	Operable	Resolution Undetermined	Open
CR 2012-10915	Operable	Resolved	Awaiting Closure
CR 2012-10916	Operable	Resolution Undetermined	Open
CR 2012-10917	Operable	Resolution Undetermined	Open
CR 2012-10919	Operable	Resolution Proposed	Open
CR 2012-11039	Operable	Resolution Undetermined	Open
CR 2012-11041	Operable	Resolution Undetermined	Open
CR 2012-11277	Operable	Resolution Undetermined	Open
CR 2012-11879	Operable	Resolved	Awaiting Closure
CR 2012-11880	Operable	Resolution Undetermined	Open
CR 2012-11973	Operable	Resolved	Awaiting Closure
CR 2012-12399	Operable	Resolved	Awaiting Closure
CR 2012-12400	Operable	Resolution Proposed	Open
CR 2012-12401	Operable	Resolution Proposed	Open
CR 2012-12402	Operable	Resolution Undetermined	Open
CR 2012-12403	Operable	Resolution Proposed	Open
CR 2012-12404	Operable	Resolved	Awaiting Closure
CR 2012-12405	Operable	Resolved	Awaiting Closure

LIC-12-0169
Enclosure 1

**Seismic Walkdown Submittal Report in Response to
the 50.54(f) Information Request Regarding
Near-Term Task Force Recommendation 2.3: Seismic
For Fort Calhoun Station**

(688 Pages)

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 1 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

**OMAHA PUBLIC POWER DISTRICT
FORT CALHOUN NUCLEAR STATION**

SEISMIC WALKDOWN SUBMITTAL REPORT


**for Resolution of Fukushima Near-Term Task Force
Recommendation 2.3: Seismic**

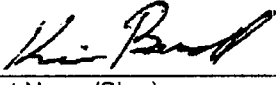
Engineering Report Type:

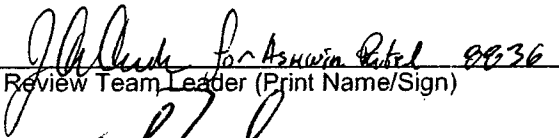
New Revision Cancelled Superseded
 Superseded By: _____

EC No. N/A

Quality-Related: Yes No

Prepared by: Tom Panayotidi (ENERCON)  Date: 11/26/2012
 (Print Name/Sign)

Reviewed by: Kevin Bessell (ENERCON)  Date: 11/26/2012
 Other (Print Name/Sign)

Reviewed by: Ashwin Patel  Date: 11/27/12
 Peer Review Team Leader (Print Name/Sign)

Approved by: J K Gasper  Date: 11/25/12
 Manager (Print Name/Sign)

Approved by: Jan Bostelman  Date: 11/26/2012
 Other (Print Name/Sign)



ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 2 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

TABLE OF CONTENTS



<u>Section</u>	<u>Page</u>
LIST OF TABLES	3
1.0 SCOPE AND OBJECTIVE	4
2.0 SEISMIC LICENSING BASIS SUMMARY	7
2.1 SAFE SHUTDOWN EARTHQUAKE	7
2.2 DESIGN CODES, STANDARDS, AND METHODS	10
3.0 SEISMIC WALK-DOWN PROGRAM IMPLEMENTATION APPROACH	12
4.0 PERSONNEL QUALIFICATIONS	14
4.1 SEISMIC WALK-DOWN TEAM	14
4.2 PEER REVIEW TEAM	19
5.0 IPEEE VULNERABILITIES REPORTING	20
6.0 SEISMIC WALK-DOWN EQUIPMENT LIST DEVELOPMENT	23
6.1 SAMPLE OF REQUIRED ITEMS FOR THE FIVE SAFETY FUNCTIONS	24
6.2 SPENT FUEL POOL (SFP) ITEMS	26
6.3 DEFERRED ITEMS	28
7.0 SEISMIC WALK-DOWNS AND AREA WALK-BYS	30
8.0 LICENSING BASIS EVALUATION	32
8.1 LICENSING BASIS EVALUATIONS	32
8.2 CORRECTIVE ACTION PROGRAM ENTRIES	33
8.3 PLANT CHANGES	33
9.0 PEER REVIEW	35
9.1 PEER REVIEW PROCESS	35
9.2 PEER REVIEW RESULTS SUMMARY	37
10.0 REFERENCES	39
11.0 ATTACHMENTS	42

LIST OF FIGURES

	<u>Page</u>
Figure 1 _____	9
Figure 2 _____	22

LIST OF TABLES

	<u>Page</u>
Table 1 - Personnel Function _____	14
Table 2 - Deferred Items _____	28
Table 3 - Summary of Peer Reviewed Checklists _____	38



		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 4 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

1.0 SCOPE AND OBJECTIVE

This report documents the results of the seismic walkdown effort at the Omaha Public Power District (OPPD) Fort Calhoun Nuclear Station, for resolution of the Fukushima Near Term Task Force (NTTF) Recommendation 2.3: Seismic.

The objective of the walkdown effort is to provide response to the Title 10 of the Code of Federal Regulations, Section 50.54(f) letter (10 CFR 50.54(f)) issued by the Nuclear Regulatory Commission (NRC) on March 12, 2012 (Reference [10.1]). US nuclear power plants are “required to perform seismic walkdowns to identify and address degraded, non-conforming or unanalyzed conditions and to verify the current plant configuration with respect to the current seismic licensing basis”. The Nuclear Energy Institute (NEI), through the Electric Power Research Institute (EPRI), prepared industry guidance to assist licensees in responding to this NRC request. During the walkdowns, a sample of components and areas of the plant are examined to identify potentially adverse seismic conditions, within the guidelines and parameters provided in the EPRI report 1025286 “Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic”, dated June 2012 (Reference [10.2]) and endorsed by the NRC on May 31, 2012. This report will be referred to as the “*EPRI Guidance*” for the remainder of this document. Omaha Public Power District (OPPD) Fort Calhoun Nuclear Station (FCNS) has committed to using this NRC endorsed guidance as the basis for the walkdowns and this report.

The sample of components selected for walkdown inspection must be suitably diverse, be located in a variety of environments, include items needed to safely shutdown the reactor, maintain containment integrity, and avoid unanticipated rapid drain-down of the spent fuel pool. The walkdowns primarily focus on equipment anchorage, seismic spatial interaction, seismically induced fire and seismically induced flood.



		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 5 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

Section 6.0 describes the equipment and component selection process. The selected sample of components constitutes the Seismic Walkdown Equipment List (SWEL). In addition to seismic equipment/component walkdowns (SWD), “area walk-bys” were performed to ensure that there were no other potentially adverse seismic conditions in an approximate 35 foot radius surrounding each component on the SWEL. The seismic walkdown teams consisted of two seismic walkdown engineers (SWE). In cases where multiple SWEL items were located in the same room/area of the plant, a single area walk-by was conducted for those items.

The results of the seismic walkdowns and walk-bys are documented on the Seismic Walkdown Checklists (SWC) and Area Walk-by Checklists (AWC). Any potentially adverse seismic conditions discovered during the walkdowns and identified on the SWC’s or AWC’s, that could not readily be shown to meet the Current Licensing Basis (CLB), were entered into the plant’s Corrective Action Program (CAP) for documentation, evaluation and resolution. Description of the walkdown process is provided in more detail in Section 7.0; results are provided in Attachments 11.2, 11.3, 11.4.



Licensing Basis Evaluations (LBEs) were performed as part of the resolution of the Condition Reports (CR) that were initiated to document potentially adverse seismic conditions. The LBE process is described in more detail in Section 8.0; results of the evaluations are summarized in Attachment 11.4.

A Peer Review team was formed to review all aspects of the effort, including the development of the SWEL, the consideration of vulnerabilities identified in the 1990’s under the Individual Plant Examination of External Events (IPEEE) program, the performance of SWEs during walkdowns and area walk-bys, the Licensing Basis Evaluation process, and this Submittal Report. The Peer Review process is described in more detail in Section 9.0; results are included in Attachments 11.6 and 11.7.

 EPRI Electric Power Public Power District	 ENERCON <i>Excellence—Every project. Every day.</i>	ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 6 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

In accordance with the EPRI Guidance, the following topics are addressed in the subsequent sections of this report:

- Seismic Licensing Basis Summary
- Personnel Qualifications
- Selection of Systems, Structures and Components (SSCs)
- Seismic Walkdowns and Area Walk-bys
- Licensing Basis Evaluations
- IPEEE Vulnerabilities Resolution Report
- Peer Review

 	ENGINEERING REPORT NO. EA12-021	
	REVISION 0	PAGE 7 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown		

2.0 SEISMIC LICENSING BASIS SUMMARY

2.1 SAFE SHUTDOWN EARTHQUAKE

The Fort Calhoun Station is a pressurized water reactor (PWR) located on the west bank of the Missouri river, approximately 19.4 miles north of Omaha, Nebraska. The plant site is underlain by 65 to 75 feet of unconsolidated alluvial and glacial deposits, largely loose to moderately compact silty sand, and denser sands and gravels resting on sedimentary rock. The plant buildings are supported by a system of pipe piles driven to bedrock. The soil around the piles under Seismic Category I structures was compacted by vibroflotation to prevent liquefaction under Maximum Hypothetical Earthquake (Safe Shutdown Earthquake) loading.

The foundation mat for the Containment and Auxiliary buildings is an integral unit supported on piles. The Intake Structure and Turbine Building are on separate foundations, each supported on piles. The plant grade elevation is 1004 feet.

The primary sources of the plant's seismic licensing basis information are the Updated Safety Analysis Report (USAR), Appendix F (Reference [10.3]), and the Plant Level Design Basis Document (PLDBD), PLDBD-CS-51 (Reference [10.4]). The USAR describes the Design Earthquake (DE), also referred to as Operating Basis Earthquake (OBE), and the Maximum Hypothetical Earthquake (MHE), also referred to as Safe Shutdown Earthquake (SSE) and Design Basis Earthquake (DBE).

FCNS was licensed in accordance with the draft criteria set forth in the 70 General Design Criteria for Nuclear Power Plant Construction, published for comment in the Federal Register (32 FR 10213) on July 11, 1967.

The Safe Shutdown Earthquake (SSE) for the site is 0.17g acting in the horizontal direction and two-thirds of 0.17g acting in the vertical direction simultaneously, in combination with the primary steady state stresses. Total stresses are limited so that



ENERCON

Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 8 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

the function of Class 1 SSC's is not impaired in a manner that would prevent a safe and orderly shutdown of the plant.

The ground response spectrum of the SSE (MHE) is shown in Figure 1. The spectrum conforms to the average spectra developed by Housner (Reference [10.11]) for frequencies higher than about 0.33 Hz. The spectra for frequencies lower than about 0.33 Hz were prepared utilizing data presented by Newmark (Reference [10.12]).

The damping factors (percent of critical) that were used in the design of SSC's range from 0.5% for vital piping systems to 7% for framed concrete structures. Damping ratio for bolted steel assemblies and for concrete structures supporting the reactor vessel or steam generator was 2%.



Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

REVISIONS
DATE
BY
APPROVED

FILE NO. Y. 05.01 - 11-10-11
PROJECT NO. 1277 - 11-10-11

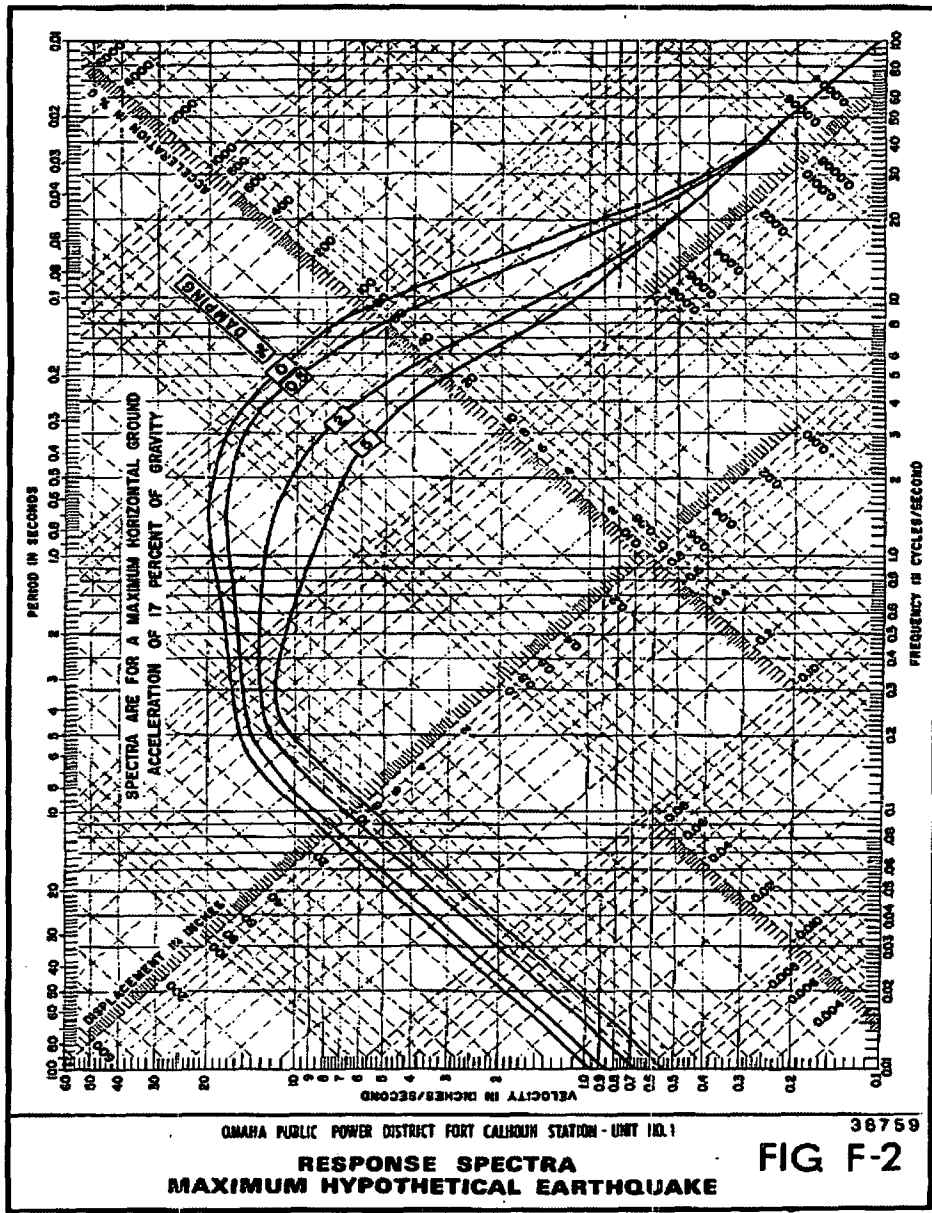




Figure 1

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 10 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

2.2 DESIGN CODES, STANDARDS, AND METHODS

All Class I systems, structures and components (SSC's) at FCS have been designed to withstand stresses resulting from the response to the Design Earthquake (ground acceleration of 0.08g horizontal and two-thirds of 0.08g vertical, acting simultaneously), in combination with the primary steady-state stresses. Total stresses are maintained within the allowable working stress limits accepted as good practice and, where applicable, set forth in the appropriate design standards, such as the ASME Boiler and Pressure Vessel Code, USAS B31.1 (1967), USAS B31.1 (1955) for Reactor Coolant loop piping, and B31.7 (1968) Codes for Pressure Piping, ACI 318-63 Building Code Requirements for Reinforced Concrete, and AISC Specification for the Design and Erection of Structural Steel for Buildings. In addition, Class I SSC's have been designed such that seismic stresses resulting from the response to the Maximum Hypothetical Earthquake (ground acceleration of 0.17g horizontal and two-thirds of 0.17g vertical, acting simultaneously), in combination with the primary steady-state stresses, are limited so that the function of the SSC's is not impaired in a manner that would disrupt the safe and orderly shutdown of the plant. Seismic qualification of Class I electrical equipment conforms to IEEE 344-1975. Components of the Reactor Protective System and the Engineered Safeguards Actuation System are qualified per IEEE 344-1971 "Guide for Seismic Qualification of Class 1E Electrical Equipment for Nuclear Power Generation Stations".

The general Method of analysis for Class 1 SSC's can be described as follows:

- Determine the natural frequency of vibration of the structure or component
- Select the appropriate Amplified Floor Response Spectrum (ARS, currently called In-Structure-Response-Spectrum, or ISRS) or Ground Spectrum, depending on support elevation and/or location



ENERCON

Excellence—Every project. Every day.



ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 11 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

- Select the appropriate damping ratio of component and, from the corresponding spectral curve and at the natural frequency of vibration of the component, read the response acceleration of the component
- Stresses resulting from the combination of Design Earthquake acceleration and other applicable loads are checked against limits imposed by design standards
- Responses resulting from the combination of Maximum Hypothetical Earthquake acceleration and other applicable loads are checked to ensure that stresses would not produce rupture and deflections would not prevent the functional performance of the component

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 12 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			



3.0 Seismic Walk-down Program Implementation Approach

OPPD has committed to conduct and document seismic walkdowns for resolution of NTTF Recommendation 2.3: Seismic, in accordance with the EPRI Guidance. OPPD contracted with ENERCON Services, Inc., for supplementary engineering and management resources.

A team of individuals, Mr. Marvin Morris and Mr. Steve Skubey, equipped with knowledge of plant systems and components, were selected to develop the Seismic Walkdown Equipment List (SWEL). Two SWELs were developed: SWEL 1 and SWEL 2.

SWEL 1 consists of a sample of equipment related to safe shutdown of the reactor and maintaining containment integrity; SWEL 2 consists of items related to the Spent Fuel Pool, as described in the EPRI Guidance.

Personnel responsible for performing the walkdowns and AWCs successfully completed training for the NTTF Recommendation 2.3: Seismic. The Seismic Walkdown Engineers who are certified by SQUG were not required to complete the NTTF training, but were trained on the differences between the USI A-46 and NTTF 2.3: Seismic programs. The team of Seismic Walkdown Engineers (SWEs) who performed the walkdowns were Mr. Kevin Bessell, Mr. Alex Smerch, and Mr. John Kao. The majority of the walkdowns were performed by Mr. Smerch and Mr. Kao. Mr. Bessell took over the role left vacant by Mr. Kao to complete the remaining walkdowns with Mr. Smerch. Mr. Bessell and Mr. Kao have extensive experience in seismic design and qualification of nuclear power plant SSC's. It was considered important to the project to ensure that any given walkdown team would be comprised with an experienced seismic engineer and one less experienced engineer. Qualifications of the seismic walkdown team members are provided in Section 4.0.

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 13 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

Seismic Walkdown Checklists (SWC's) and Area Walk-by Checklists (AWC's) were prepared in advance of the walkdowns. Packages were assembled into folders that included related information, such as location of equipment, anchorage drawings, in-structure response spectra information, calculations, and previously performed qualifications under earlier programs (refer to Section 5.0), if available.

Walkdowns were performed for all accessible components on the combined SWEL (SWEL 1 + SWEL 2). During the walkdowns, SWC's were completed for each component on the SWEL, and AWC's were completed for each area within an approximate 35 foot radius of the component. Walkdowns were tracked by component number and AWC's by location. Details of the SWC's and AWC's are provided in Section 7.0.

The SWCs and AWCs were given one of three status marks "Y" for Yes (walkdown is completed), "N" for No (walkdown has not been performed), or "U" for Uncertain (walkdown has been performed however more information is required and item has been deferred). When feasible, inaccessible items were replaced by alternate, accessible items, and the SWEL was revised accordingly. Such changes were reviewed by the SWEs, Equipment Selection Personnel and the Peer Review team.

Potentially adverse seismic conditions that were identified in the walkdowns were either evaluated under a Licensing Basis Evaluation or entered directly into the plant's corrective action program (CAP) for further evaluation. A summary of the potentially adverse seismic conditions is provided in Attachment 11.4.

A Peer Review was conducted for each activity, including this submittal report. The Peer review activity is described in detail in Section 9.0. Qualifications of the Peer Review team are provided in Section 4.0.

4.0 Personnel Qualifications

Qualifications and experiences of personnel participating in the NTTF Seismic Walkdown effort are provided in this section. Training certificates for the SWEs are provided in Attachment 11.8.

Name of Personnel	Equipment Selection	Plant Operations	Seismic Walkdown	Licensing Basis	IPEEE Reviewer	Peer Reviewer
Marvin Morris	X				X	
Steve Skubey	X					
Kevin Bessell			X			X (LBE)
Alex Smerch			X			
John Kao			X			
Don Pier		X				X (SWEL)
Ashwin Patel			X			X (SWD, SWEL)
Ryan Rymarczyk				X		
David Haas		X				X (SWD)
Russell Placke			X			

Table 1 - Personnel Function

4.1 SEISMIC WALK-DOWN TEAM

- **Marvin Morris**
B.S. Mathematics, University of Texas, Pan American, 1968



ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 15 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

M.S. Physics, Sam Houston State University, 1974

Mr. Marvin Morris is the Supervisor of Safety Analysis in ENERCON's NYSIS Division. Mr. Morris has over 30 years of experience in the nuclear industry in areas of design, analysis, licensing and operations support. His more recent experience has been involved with the development of Combined License (COL) applications for Bellefonte, Grand Gulf Nuclear Station, William States Lee and Comanche Peak Nuclear Power Plant new plant projects.

- **John Kao, S.E., P.E.**

B.S. Civil Engineering, University of Illinois at Urbana-Champaign, 1976

M.S. Civil Engineering, University of Illinois at Urbana-Champaign, 1977

MBA Illinois State University, 2003

Mr. John Kao is a Civil/Structural Engineer, sub-contracted by ENERCON, with over 34 years of work experience, the majority of which has been in nuclear. John has expertise in diverse areas of structural analysis and design, as well as some areas of civil engineering. Over the past 9 years at a utility company, Mr. Kao has served as a manager for small transmission and substation projects as well as performed the engineering for these projects. John has been the lead structural engineer for a leading consulting firm in the power industry and was responsible for the analysis and design of structural steel structures, pipe supports, writing design criteria and coordinating field work. Mr. Kao is an EPRI trained SQUG Seismic Capability Engineer. He is a licensed structural engineer and professional engineer in the state of Illinois.

- **Kevin Bessell, S.E., P.E.**

B.S. Civil Engineering, University of Illinois at Urbana-Champaign, 2000

Mr. Kevin Bessell is the Lead Civil/Structural Engineer in ENERCON's Naperville, Illinois office. He has over 12 years of experience, of which 4 years



ENERCON

Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 16 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

are in the nuclear industry. Mr. Bessell recently completed the seismic analysis of the Fuel Handling Building at Zion Nuclear Power Station in support of the upgrade of the overhead bridge crane. In addition, he provided oversight for the cask set down safe load path evaluations and stack-up seismic restraint design. Mr. Bessell has experience in linear time history and response spectrum dynamic analyses as well as equivalent static method analysis of decoupled subsystems. Mr. Bessell is an EPRI trained Fukushima NTTF Recommendation 2.3 Seismic Walkdown Engineer and has trained over 30 individuals. He is a licensed structural engineer in the state of Illinois and a licensed professional engineer in the state of Illinois and Wisconsin.

- **Alex Smerch**

B.S. Civil Engineering, Marquette University, Milwaukee, WI, 2008

Mr. Alex Smerch is a Civil/Structural Engineer in ENERCON's Naperville, Illinois office and is the lead Seismic Walkdown engineer for the project. He has over 3 years of experience performing structural analysis and design in the power and industrial industries. His experience includes developing and analyzing finite element models using a variety of software to aid the design of numerous structural components and systems. He is experienced in preparing design calculations and analysis of concrete and steel structures, conducting dynamic analyses of structures to resist seismic and hydrodynamic loads, designing various structural support systems to comply with regulations and restrictions at nuclear facilities, and performing computer programming to post-process and expedite the analysis results from software based design aids. Mr. Smerch is an EPRI trained Fukushima NTTF Recommendation 2.3 Seismic Walkdown Engineer and has trained over 15 individuals.

- **Steve Skubey**

B.S. Civil Engineering, University of Tennessee, Knoxville, TN



Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

Mr. Steve Skubey is a Civil/Structural Engineer in ENERCON's Overland Park, Kansas office. He has over 4 years of experience in the nuclear industry. He has been involved with the TVA Watts Bar Nuclear Unit 2 completion as an employee with Bechtel Power Corporation. His primary role was a pipe support design engineer performing design analyses, material testing and hazard evaluations.

- **Ryan Rymarczyk**

B.S., Nuclear Engineering, University of Illinois Urbana-Champaign, 2007



Mr. Ryan Rymarczyk is a Nuclear Engineer in ENERCON's Naperville, Illinois office. In this position, he has performed various mechanical analyses and design for commercial nuclear power plants including River Bend, Perry, Point Beach, St. Lucie and Palisades Nuclear Stations. Mr. Rymarczyk was also involved in developing an economic feasibility study for a next-generation mid-western nuclear power station.

- **David Haas**

B.S. Engineering Technology, University of Nebraska, 1977

Mr. David Haas has over 33 years of experience as a former senior mechanical design engineer in the Design Engineering Group at OPPD; 22 years of nuclear experience at Fort Calhoun Station; performed walkdowns for concrete anchor inspection and anchor pull-testing for the NRC I&E Bulletin 79-02 in the late 70's and early 80's; also performed pipe support walkdowns for related I&E Bulletin 79-14; wrote specifications, installation and repair procedures, performed ASME code reconciliations, qualified various welding procedures and served as alternate welding engineer.

- **Ashwin Patel**

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 18 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

B.S. Mechanical Engineering, University of Idaho

B.S. Electrical Engineering, University of Idaho

Mr. Patel is a senior engineer at OPPD. He has performed stress analyses and equipment qualifications of various power plant components based on SQUG methodology at General Electric, Union Carbide (Reprocessing Nuclear Fuel) and TVA; performed testing of equipment, seismic test reports, prepared modifications, evaluated relays and quality relays at OPPD. He holds the following certifications: SQUG Walkdown Engineer; SQUG NARE; SQUG Relay Evaluation.

- **Don Pier**

B.S., Thomas Edison State University

Mr. Pier is a licensed Senior Reactor Operator at Fort Calhoun Nuclear Station. He has been the project manager for the Steam Generator Replacement and Extended Power Uprate. He holds the following qualifications: Shift Manager; Control Room Supervisor; Shift Technical Advisor; Reactor Operator; Test Engineer.

- **Russ Placke, P.E.**

B.S. Civil Engineering, University of Nebraska, Lincoln, 1995

Mr. Placke has over 17 years of experience as a Civil/Structural Design engineer. Much of this experience has been in the power and industrial field in the design of steel and concrete structures such as buildings, pipe racks, pipe supports, building foundations and equipment foundations. A portion of this experience has been as a field engineer for the construction of (3) combined cycle power plants where he was responsible for the resolution of structural issues encountered during the construction. The past two years have been as a design engineer – nuclear at OPPD's Fort Calhoun Power Station where he



ENERCON
Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**

REVISION 0



PAGE 19 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

has been extensively involved in the plant recovery efforts such as the reconstitution of the containment internal structure design calculations. Mr. Placke has also completed OPPD's one year training program for design engineers and also the Seismic Qualification Utility Group (SQUG) training.

4.2 PEER REVIEW TEAM

- Kevin Bessell (ENERCON)
- Don Pier (OPPD)
- Ashwin Patel (OPPD Lead Peer Reviewer)
- David Haas (OPPD)

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 20 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

5.0 IPEEE Vulnerabilities Reporting

During the IPEEE program in response to NRC Generic Letter 88-20 (Reference [10.5]), plant-specific seismic vulnerabilities were identified at many plants. In this context, “vulnerabilities” refers to conditions found during the IPEEE program related to seismic anomalies, outliers, or other findings.

IPEEE Reviewers (see Section 4.0) reviewed the IPEEE Report (Reference [10.25]) and supporting documentation to identify items determined to present a seismic vulnerability by the IPEEE program. IPEEE Reviewers then reviewed additional plant documentation to identify the eventual resolutions to those seismic vulnerabilities not resolved by the completion of the IPEEE program.

During the 1980’s, the NRC initiated an Unresolved Safety Issue (USI) A-46 under Generic Letter No. 87-02 (Reference [10.6]), to review the seismic adequacy of equipment in certain operating nuclear power plants with respect to seismic criteria not in use at the time when these plants were licensed. FCNS was identified as one of the A-46 plants which must be reviewed. The vulnerabilities that were then identified under the IPEEE program were also incorporated as outliers under the USI A-46 program. OPPD joined the Seismic Qualification Utility Group (SQUG) which published the Generic Implementation Procedure, Revision 2 (GIP-2) (Reference [10.17]) for evaluating these plants and equipment. The NRC accepted the SQUG procedure for resolving USI A-46 in Supplementary Safety Evaluation Report No.2 (SSER No.2) (Reference [10.18]). OPPD used GIP-2 in its entirety, including the clarifications, interpretations and exceptions identified in SSER No.2, as clarified by the August 21, 1992 SQUG letter (Reference [2.19]), to evaluate the seismic adequacy of selected safe shutdown equipment in the Fort Calhoun Station (Reference [2.20]).



ENERCON

Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 21 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

The NRC issued a Safety Evaluation Report to OPPD on July 30, 1998, which accepted the results of the USI A-46 program for FCNS, including the approach used to resolve all outliers and vulnerabilities (Reference [2.21]).

As discussed in the letter in the following figure, there are no IPEEE vulnerabilities to report, because all “outliers” have been resolved and incorporated into the plant design (see Figure 2 below for closeout of USI A-46, TAC No. M69447).



ENGINEERING REPORT NO. EA12-021

REVISION 0

PAGE 22 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

RECD AUG 4 1998



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20549-0001
July 30, 1998

NRC-98-129

Mr. S. K. Gambhir
Division Manager - Engineering & Operations Support
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
Post Office Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, Nebraska 68023-0399

POSTING REQUIRED
PER 10 CFR 19.11, 21.6 or 50.7
YES — NO
REVIEWED BY *[Signature]*

SUBJECT: FORT CALHOON STATION, UNIT NO. 1 - CLOSEOUT OF UNRESOLVED
SAFETY ISSUE A-46 (TAC NO. M69447)

Dear Mr. Gambhir:

The staff has reviewed Omaha Public Power District's (OPPD) response to Generic Letter (GL) 87-02 which established the USI A-46 program for the Fort Calhoun Station, Unit No. 1. The staff concludes that your USI A-46 implementation program has met the purpose and intent of the criteria in the Generic Implementation Procedure, Revision 2 (GIP-2) and the staff's Supplemental Safety Evaluation Report No. 2 (SSER No. 2) for the resolution of USI A-46. The staff has determined that your corrective actions and completed physical modifications for resolution of outliers resulted in safety enhancements, in certain aspects, that are beyond the original licensing basis, and as a result, provide sufficient basis to close the USI A-46 review at the facility. The staff concludes that your implementation program to resolve USI A-46 at the facility has adequately addressed the purpose of the 10 CFR 50.54(f) request. Your activities related to the USI A-46 implementation are subject to NRC inspection.

98086

Sincerely,

L. Raymond Wharton
L. Raymond Wharton, Project Manager
Project Directorate IV-2
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-285



Enclosure: Safety Evaluation

cc w/encs: See next page

WCGates, DJacobberger, SKGambhir, RLPhelps, JWChase, MATesar, JMSolymossy, RLJaworski, PJJounsbury, REWestcott, WLFelis, DRPodkilt, MJLucht, JWTifts, BRHansher, TCMatthews, DFSpires, JRKuhr, DPGalle, RDMartin, JGKeppler, JHMacKinnon, JTaylor, WJAngus, TJPalmisano, WHFujimoto, WFConway, FILE COPY (Joel)

LC004373

Figure 2



	 <i>Excellence—Every project. Every day.</i>	ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 23 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

6.0 Seismic Walk-down Equipment List Development

The process used to select the items to be included in the seismic walkdown equipment list (SWEL) is described in detail in the EPRI Guidance, Section 3: Selection of SSCs. In general, the Ft. Calhoun SWEL is comprised of two groups of items, one of which is a sample of components from the USI A-46 safe shutdown equipment list (SSEL), the Ft. Calhoun IPEEE list, insights from the Ft. Calhoun PRA, and review of plant modifications completed since the USI A-46 report was completed (termed SWEL 1) and the other is a sample of components associated with the spent fuel pool (termed SWEL 2).

The equipment list used as a starting point for development of the SWEL 1 is the base list, or BL 1. The base list used at FCNS is the Safe Shutdown Equipment List (SSEL) that was developed to address the NRC Unresolved Safety Issue (USI) A-46, "Seismic Qualification of Equipment in Operating Plants" which employed the guidance provided in Revision 2 of the Generic Implementation Procedure (GIP) and NRC Supplemental Safety Evaluation Report No. 2. The SSEL was developed in the 1990's and, to ensure that the safe shutdown paths used as a basis for the list remained valid, a review of the Design Basis Documents (DBDs) for safe shutdown systems was performed to identify changes to the systems since the SSEL was developed. Any new or changed equipment was added to BL 1.

The selection of equipment for the seismic walkdown is based on the USI A-46 Safe Shutdown Equipment List from EA 96-017(Reference [2.26]) and the IPEEE Component List from the IPEEE Report (Reference [2.25]). Screening of these lists is based on the requirements provided in the EPRI Guidance. In accordance with the EPRI Guidance, Seismic Category I structures, containment penetrations, and Seismic Category I piping systems were not included in the SSC bucket from which the SWEL 1 components were selected. This selection process is intended to comply with the request in the NRC

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 24 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

50.54(f) Letter (Reference [10.1]), under the “Requested Actions” section, to “verify current plant configuration with the current license basis.”

6.1 SAMPLE OF REQUIRED ITEMS FOR THE FIVE SAFETY FUNCTIONS

The selection of equipment for the seismic walkdown was based on the five safety functions identified in the EPRI Guidance:

1. Reactor reactivity control
2. Reactor coolant pressure control
3. Reactor coolant inventory control
4. Decay heat removal
5. Containment function

The SWEL 1 was developed by applying the following five sample selection attributes, defined in the EPRI Guidance, Section 3, to BL 1. The method of application is summarized below for each attribute:

- **A variety of types of systems**



Sample items are selected to represent a broad range of frontline and support systems included on the SSEL.

- **Major new and replacement equipment**

A review of the system DBDs was performed to identify major new or replacement equipment installed within the last 20 years. A sample of these items is included on SWEL 1.

- **A variety of types of equipment**

At least one item from each of the classes of equipment listed in EPRI Guidance, Appendix B: Classes of Equipment was included in SWEL 1 to

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 25 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

provide a sample selection of a variety of equipment types. No items are specifically listed in the Ft. Calhoun SSEL for Classes 11, 12, and 13. For these three classes no items are included on SWEL 1.

- **A variety of environments**

Sample items were selected from different locations in the plant to include various environments (hot, cold, dry, wet) and inside and outside installations.

- **Equipment enhanced due to vulnerabilities identified during the IPEEE program**

The IPEEE program documentation was reviewed to determine equipment that had been modified or otherwise enhanced to reduce IPEEE vulnerabilities. A sample of these items is included on SWEL 1.

An additional consideration for the development of SWEL 1 is the equipment availability for inspection due to protected train restrictions during plant operation. The SWEL 1 items were selected from a single train (train A, where possible) and the walkdowns were scheduled to be accomplished within a single week to ensure accessibility. To ensure that risk significant items were included, insights from the Ft. Calhoun Probabilistic Risk Assessment (PRA) were considered.

The Fort Calhoun Station Probabilistic Risk Assessment (PRA) model includes only simplified modeling of a potential seismic initiating event. The simplified seismic model is used to support plant configuration risk assessments. It is not equivalent to a seismic PRA, and does not meet Regulatory Guide 1.200 (Reference [2.27]) with respect to modeling of seismic events. The simplified seismic model is based on a hypothetical seismic event (nominally 0.1g) that is assumed to result in failure of selected equipment that is susceptible to failure at or near the assumed g-level. The model assumes that the seismic event results in unrecoverable loss of off-site power, failure of equipment in the Turbine Building (including Auxiliary Feedwater Pump FW-54), failure of the diesel-



ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 26 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

driven fire pump in the Intake Structure and failure of all makeup sources to the Emergency Feedwater Storage Tank (EFWST) except Raw Water.



Using the existing PRA model, a list of potential seismic event accident sequences (i.e., cut-sets) was generated. The list of importance measures for basic events appearing in the seismic event cut-sets were sorted based on the "Risk Achievement Worth, RAW" importance measure. The equipment with the highest importance according to this approach is listed below:

- Diesel Generators (including inlet/exhaust dampers and fuel oil transfer pumps)
- Station Batteries
- Various 4160V Breakers
- Air-Operated Auxiliary Feedwater Valves
- 480V Buses
- Auxiliary Feedwater Pumps FW-10 & FW-6 (including associated equipment)

6.2 SPENT FUEL POOL (SFP) ITEMS

A base list (BL 2) was developed by reviewing the spent fuel pool (SFP) cooling and inventory related systems for all safety-related, Seismic Category I equipment and reviewing the systems whose failure could result in rapid drain-down of the SFP to within 10' above the stored fuel. Rapid drain-down is defined as lowering of the water level to the top of the spent fuel assemblies within 72 hours after an earthquake. A sample of the Seismic Category I systems components were selected for inspection consistent with the SWEL 1 methods defined previously to create SWEL 2.

The method for selection of SWEL 2 SFP rapid drain-down items described in the EPRI Guidance is difficult to implement. When rapid drain-down items are identified, it is not clear what actions are required particularly if items are placed on SWEL 2. Rapid drain-

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 27 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

down would typically involve piping failure; however, the walkdown guidance does not include piping in the scope. In addition, the rapid drain-down considerations in the EPRI Guidance, such as pool sloshing evaluations, boil-off, leak size, etc., are not sufficiently defined for implementation as part of the walkdown / SWEL development process.

SWEL 1 and SWEL 2 items were combined to form the SWEL. Generally speaking, all major components (e.g., tanks, heat exchangers, and pumps) needed for safe shutdown, following a seismic event and accompanied by a loss of offsite power (LOOP), were selected.

The SWEL was developed in the form of a spreadsheet, which allowed for manipulation/sorting of data and cross-referencing to build summary tables. The SWEL spreadsheet includes the following information:

1. Sequential item number (used to develop the SWC ID #)
2. A-46 Equipment Box (where provided)
3. Component ID
4. Equipment Class (from GIP)
5. Item Description
6. System Designator
7. Location (Room)
8. Floor Elevation
9. Equipment Location
10. Power source (if applicable)

The associated lists from the spreadsheet, BL 1, BL 2, and the combined SWEL can be found in Attachment 11.1. It shall be noted that the information (equipment description, elevation, location, etc.) provided in the base lists (BL1, BL2) is what is provided exactly



Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown



on the SSEL. The information provided in the SWEL is based on current information provided in the document management system utilized by Fort Calhoun Nuclear Station, Asset Suite. As such, the information from one list to the other may vary slightly, and has no effect on the implementation of the walkdowns performed at FCNS.

6.3 DEFERRED ITEMS



Items on the SWEL and their corresponding areas that are inaccessible during the 180-day period for resolution to the 10CFR50.54(f) Letter are listed in Table 2 below:

SQUG A-46 Equipment Box	ASSEL Associated Safe Shutdown List	SQUG CLASS	DESCRIPTION	SYSTEM	ROOM	ELEV	LOCATION	Safety Functions	SFP Item
1B3B	1B3B	2	480 VOLT BUS 1B3B (EE-4H)	EE-4B	56	1011	10WC- 9N'5B	1, 2, 3, 4, 5	SFP
1B3C	1B3C	2	480 VOLT BUS 1B3C (EE-4K)	EE-4B	56	1011	10WC- 10N'4A	1, 2	
1B4A	1B4A	2	480 VOLT BUS 1B4A (EE-4G)	EE-4B	56	1011	10E'D- 15S'6D	1, 2, 3, 4, 5	SFP
1B4B	1B4B	2	480 VOLT BUS 1B4B (EE-4J)	EE-4B	56	1011	10E'D- 12N'5B	1, 2, 3, 5	
1B4C	1B4C	2	480 VOLT BUS 1B4C (EE-4L)	EE-4B	56	1011	15WC- 4N'4A	1, 2, 3, 4, 5	SFP
1A3	1A3	3	4.16KV BUS (EE-4C)	EE-4A	56	1016	11WC- 18N'1A	1, 2, 3, 4, 5	SFP
1A4	1A4	3	4.16KV BUS (EE-4D)	EE-4A	56	1016	16WC- 18N'1A	1, 2, 3, 4, 5	SFP
FW-6	FW-6	5	AUXILIARY FEEDWATER PUMP (MOTOR-DRIVEN)	FW-AFW	19	0992	4WC-5S'4A	4	

Table 2 - Deferred Items

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 29 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

Component FW-6 was determined inaccessible at the time of the inspections due to maintenance being performed on the pump. The other items were part of an energized system and were required to be in a bus outage for appropriate inspection. OPPD is scheduled to complete walkdowns of these items by March 31, 2013 and will provide an updated report by June 30, 2013.

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 30 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

7.0 Seismic Walk-downs and Area Walk-Bys

Subsequent to the development of the SWEL, the SWE's prepared walkdown packages which consisted of the SWCs, AWCs, plant documentation showing the anchorage for at least 50% of the items on the SWEL and in-structure response-spectra, if available. Having obtained assurance from the SWEL development team and the Peer Review team that the SWEL attributes contained in the EPRI Guidance were not compromised, a small number of components that were inaccessible were either removed from the SWEL or replaced by alternate components.

The walkdowns were conducted from August 13th through August 29th and focused on anchorages, seismic spatial interactions, and other potentially adverse seismic conditions, such as bolts in degraded or non-conforming conditions, extensive corrosion, absence of, or, inadequate hardware, cracked concrete, corrosion of weld and/or base metal, etc.

In addition to the general inspection requirements, at least 50% of SWEL items with anchorage were required to be verified that their anchorage is consistent with plant documentation. A total of 96 items were identified on the SWEL for inspection, and 88 walkdowns were performed with 8 items deferred as shown in Table 2 due to inaccessibility as previously discussed. Of the 96 items on the SWEL, 68 items had anchorage that was not considered in-line. Anchorage configuration verification was performed on 41 items, which is greater than 50% of the items with anchorage not considered in-line. There are 96 SWCs provided in Attachment 11.2. It shall be noted that the information provided on the SWCs relative to equipment identification, location, description and floor elevation was input as provided in the FCNS document management system, Asset Suite.



ENERCON

Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**



REVISION 0

PAGE 31 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

Area Walk-Bys were performed in conjunction with the walkdowns of each item. All areas/rooms containing equipment on the SWEL were included in the AWCs. Since certain areas contained more than one SWEL item, the number of total area walk-bys conducted is less than the number of seismic walkdowns. A total of 33 area walk-bys were performed and the associated AWCs are provided in Attachment 11.3. It shall be noted that the floor elevation identified on the AWCs corresponds to the elevation from which the inspections were performed.

In cases where the SWEs identified a potentially adverse seismic condition, the condition was identified on the SWC and/or AWC and a Licensing Basis Evaluation was performed. In many cases, a condition report (CR) was written to document and resolve the condition.

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 32 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

8.0 Licensing Basis Evaluation

8.1 LICENSING BASIS EVALUATIONS

Potentially adverse seismic conditions identified as part of the NTTF 2.3 Seismic Walkdown program may be evaluated by comparison to the current licensing basis of the plant as it relates to the seismic adequacy of the equipment in question, as is described in Section 5 of the EPRI Guidance. If the identified condition is consistent with existing seismic documentation associated with that item, then no further action is required. If the identified condition cannot easily be shown to be consistent with existing seismic documentation, or no seismic documentation exists, then the condition is entered into the CAP.



Of the 67 identified potentially adverse seismic conditions, 67 LBEs were performed. Each LBE performed is documented consistently, and included in Attachment 11.5. The results of these LBEs with respect to the associated potentially adverse seismic conditions are summarized in Attachment 11.4. A total of 20 potentially adverse seismic conditions evaluated using a LBE were dispositioned and require no further action, whereas 13 required CAP entry. The LBEs that were dispositioned were the result of inadequate anchorage configuration documentation at the time of the inspections. The SWE team documented as-built anchorage information as sketches on the checklists for further verification against plant documents that required more time to retrieve.

The following Licensing Basis Evaluations provided below are worth noting. Refer to specific LBEs provided in Attachment 11.5 for more information on the condition.

LB-2

Condition: Missing clamp attaching unistrut and pipe for FCV-1369 (SWC-38). The unistrut holds the instrument line.

Evaluation: CR 2012-10198 was initiated to resolve the condition.

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 33 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

LB-28

Condition: Block wall lateral restraint is not in contact with block wall and is possibly not restraining block wall in current state. A potential seismic interaction concern with nearby pumps AC-5A and AC-5B.

Evaluation: CR 2012-10915 was initiated to resolve the condition.

8.2 CORRECTIVE ACTION PROGRAM ENTRIES



Conditions identified during the seismic walkdowns and area walk-bys that required further resolution were entered into the plant's Corrective Action Program (CAP) for further review and disposition in accordance with the plant's existing processes and procedures. Conditions entered into the CAP included three types of unusual conditions identified:

- Seismically insignificant unusual conditions
- Potentially adverse seismic condition that does not pass a LBE
- Potentially adverse seismic condition that bypasses a LBE



A total of 33 CRs were written relative to potentially adverse seismic conditions identified. The CR numbers, current status, and resolution (where applicable and available) are summarized for these potentially adverse seismic conditions in Attachment 11.4.

8.3 PLANT CHANGES

There were no immediately implemented plant changes warranted by the results of the NTTF 2.3 Seismic Walkdown program. Resolutions of the CRs for seismically insignificant unusual conditions and potentially adverse seismic conditions identified will determine if future modifications to the plant are required. While no plant modifications have been identified as a result of the seismic walkdowns and walk-bys, various cases

		ENGINEERING REPORT NO. EA12-021	
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown		REVISION 0	PAGE 34 OF 42

were found where repairs were required or housekeeping issues needed to be addressed. Current status and resolutions (where applicable and available) for CRs related to potentially adverse seismic conditions are provided in Attachment 11.4.

	 <i>Excellence—Every project. Every day.</i>	ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 35 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

9.0 Peer Review



9.1 PEER REVIEW PROCESS

The Peer Review for the NTTF Recommendation 2.3: Seismic walkdowns was performed in accordance with Section 7 of the EPRI Guidance. The following activities were peer reviewed:

- selection of SSC's for the SWEL
- sample of the checklists prepared for the seismic walkdowns and area walk-bys
- licensing basis evaluations
- decisions for entering the potentially adverse conditions into the CAP process
- submittal report
- results of the peer review process in the submittal report

The selection of items for the SWEL was peer reviewed in accordance with Section 3 of the EPRI Guidance. The peer review team members independently provided comments to the personnel who prepared the SWEL. Peer review comments were resolved and incorporated into the final SWEL, ensuring that all recommendations of the EPRI Guidance have been met. The final SWEL contains a diverse sample of equipment required to perform the five safety functions specified in the EPRI Guidance, which are:

- Reactor reactivity control
- Reactor coolant pressure control
- Reactor coolant inventory control
- Decay heat removal
- Containment integrity

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 36 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

In addition, the peer review process verified that SWEL items included major new and replacement items, a variety of environments, equipment enhanced based on findings of the IPEEE (if any), and risk insight considerations.

The peer review team confirmed that the SWE walkdown team performed the seismic walkdowns and area walk-bys as described in Section 4 of the EPRI Guidance. A minimum of 10-25% of the SWCs and AWCs were reviewed for consistency and accuracy. The majority of the peer reviews occurred at the start of the walkdowns, and the reviewers were able to provide comments at the early stages of the process. This helped to ensure consistency and confirm that walkdowns were being performed in accordance with all the requirements of the EPRI Guidance.

All potentially adverse seismic conditions were entered into the plant's CAP program for further review and disposition. The review team verified the decisions for identifying such conditions as sound, and the dispositions were conducted in accordance with the plant's current license basis (CLB).

A peer review was completed of the licensing basis evaluations provided in Attachment 11.5. Within these licensing basis evaluations, CRs were generated for maintenance issues to replace missing bolts, nuts or remove items for housekeeping issues, or to provide further, detailed resolution of the potentially adverse seismic condition. The remaining licensing basis evaluations were created to document potentially adverse seismic conditions that were immediately entered into the CAP for detailed evaluation and investigation. The peer review of these LBEs ensured that all the information provided from the walkdown team to the licensing basis evaluation team member provided enough detail for accurate and timely resolution.

The peer review team was provided with an early draft of this submittal report for peer review. The peer review team verified that the submittal report met the objectives and requirements of Enclosure 3 to the 50.54(f) Letter, and documented the NTTF 2.3



Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

Seismic Walkdown program performed in accordance with the EPRI Guidance. The peer review team provided the results of review activities to the SWE team for consideration. The SWE team satisfactorily addressed all peer review comments in the final version of the submittal report. The signature of the Peer Review Team Leader provides documentation that all elements of the peer review as described in Section 6 of the EPRI Guidance were completed.

9.2 PEER REVIEW RESULTS SUMMARY

Peer Review of the seismic walkdowns and area walk-bys were conducted by Ashwin Patel and David Haas, who have extensive experience in seismic engineering as applied to nuclear power plants. The peer review team reviewed the walkdown packages (checklists, photos, drawings etc.) and ensured that the SWCs and AWCs were completed in accordance with the EPRI Guidance. The checklists were selected at random and 25 out of 96 SWC forms (26% of total) and 20 of 33 AWC forms (61% of total) were reviewed.

The table below summarizes the checklists that were reviewed:

	Equipment ID (from SWEL)	SWC No.	AWC No.
1	FT-1368	52	1
2	YCV-871H-20	4	2
3	DG-2	51	4
4	FO-2-2	62	4
5	FO-4A-2	21	4
6	EE-8A	48	5
7	EE-4S	15	7



ENERCON

Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**



REVISION 0

PAGE 38 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown



	Equipment ID (from SWEL)	SWC No.	AWC No.
8	T1B-3C	16	7
9	FP1B	76	10
10	AC-12B-M	2	11
11	AI-41A	45	14
12	LT-1183	53	16
13	RW-262	96	16
14	HCV-478	91	18
15	CH-172	73	19
16	AC-1A	59	20
17	HCV-484	27	20
18	AC-102	66	21
19	HCV-2893	35	22
20	AC-4B	60	23
21	HCV-240	36	25
22	SI-6A	89	26
23	HCV-2918	83	29
24	B/PT-913	55	30
25	AC-7	94	33

Table 3 - Summary of Peer Reviewed Checklists

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 39 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

10.0 References

1. 10 CFR 50.54(f) 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
2. EPRI 1025286, Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic, June 2012
3. OPPD Fort Calhoun Power Station Updated Safety Analysis Report (USAR). Revision 4, Issued 04-15-2011
4. OPPD Fort Calhoun Station Plant Level Design Basis Document (PLDBD)
5. Generic Letter No, 88-20, Supplement 4, Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
6. Generic Letter No, 87-02, Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46
7. Seismic Qualification Utility Group (SQUG) Procedure: Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Power Plant Equipment, Revision 3A, December 2001
8. NRC-98-129 “Fort Calhoun Station, Unit No.1 – Closeout of Unresolved Safety Issue A-46 (TAC No. M69447)”, dated July 30, 1998
9. U.S. Nuclear Regulatory Commission, “Endorsement of Electric Power Research Institute (EPRI) document 1025286, “Seismic Walkdown Guidance”, May 31, 2012”

		ENGINEERING REPORT NO. EA12-021	
		REVISION 0	PAGE 40 OF 42
Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown			

10. U.S. Nuclear Regulatory Commission, "Recommendations for Enhancing Reactor Safety in the 21st Century – The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," July 12, 2011
11. Nuclear Reactors and Earthquakes, TID-7024, Division of Licensing and Regulation, AEC, Washington, D.C., August, 1963
12. Design Criteria for Nuclear Reactors Subjected to Earthquake Hazards, Newmark, N.M., Department of Civil Engineering, University of Illinois (presented in Tokyo, 1968)
13. Report to AEC Regulatory Staff, Adequacy of the Structural Criteria for Fort Calhoun Station – Unit No.1, Omaha Public Power District (Docket No. 50-285), by N.M. Newmark, W.J. hall and A.J. Hendron, January 12, 1968
14. USNRC Safety Evaluation Report of Alternate Seismic Criteria and Methodologies- Fort Calhoun Station, April 16, 1993, TAC No. M71408 (NRC-93-0150)
15. EA-FC-94-003, Alternate Seismic Criteria and Methodologies, Rev.0
16. USNRC Safety Evaluation Report, Fort Calhoun Station Unit No.1 – Request for Relief from Modifying Pipe Supports SIS-63/65, SIH-3 and RCH-13 (TAC- No. M5547), OPPD Tracking No. NRC-96-188
17. Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Power Plant Equipment, Revision 2, Corrected 02/14/98, Seismic Qualification Utility Group (SQUG), February 1992
18. NRC letter to SQUG Members dated May 22, 1992, Supplemental No.1 to Generic Letter 87-02 transmitting Supplemental Safety Evaluation Report No.2 (SSER No.2) on SQUG Generic Implementation Procedure, Revision 2, Corrected February 14, 1992 (GIP-2)



ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 41 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

19. SQUG Letter to NRC dated August 21, 1992, SQUG Response to Generic Letter 87-02, Supplement 1 and Supplemental Safety Evaluation Report No.2 on the SQUG GIP
20. EA-FC-93-085, NRC USI A-46 and Seismic IPEEE Resolution
21. NRC Letter to OPPD dated July 30, 1998, Fort Calhoun Station Unit No.1 – Closeout of Unresolved Safety Issue A-46 (TAC No. M69447), OPPD Tracking No. NRC-98-129
22. Generic Implementation Procedure for Seismic Verification of Nuclear Power Plant Equipment, Revision 3, Updated 05/16/97 (GIP-3), Seismic Qualification Utility Group (SQUG), May 1997
23. NRC letter for SQUG dated December 4, 1997, Supplemental Safety Evaluation Report No.3 (SSER No. 3) on the Review of Revision 3 to the Generic Implementation Procedure for Seismic Verification of Nuclear Power Plant Equipment, Updated May 16, 1997 (GIP-3)
24. Fort Calhoun Station Calculation FC06945 (AREVA NP Inc., Document 32-5028554-01, FCS RSG – RCS Structural Evaluation) FCS RSG – RCS Structural Analysis
25. SL-4910, Individual Plant Examinations for External Events Seismic Margin Assessment Final Technical Report, March 1994, Revision 0
26. EA 96-017, SQUG Program Document Update, Revision 1
27. USNRC Regulatory Guide 1.200, An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities, Revision 2



ENERCON

Excellence—Every project. Every day.

ENGINEERING REPORT NO. **EA12-021**

REVISION 0

PAGE 42 OF 42

Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walkdown

11.0 Attachments

ATTACHMENT 11.1 - SEISMIC WALKDOWN EQUIPMENT LISTS

ATTACHMENT 11.2 - SEISMIC WALKDOWN CHECKLISTS

ATTACHMENT 11.3 - AREA WALK-BY CHECKLISTS

ATTACHMENT 11.4 - POTENTIALLY ADVERSE SEISMIC CONDITIONS

ATTACHMENT 11.5 - LICENSING BASIS EVALUATION FORMS

ATTACHMENT 11.6 - PEER REVIEW CHECKLISTS FOR SWEL

ATTACHMENT 11.7 – SEISMIC WALKDOWN ENGINEER TRAINING CERTIFICATES

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
1A3	1A1-1A3-MTS	20	A	AUX/EE	12234	125 VDC XFER SW REQ FOR 1A3 BUS	EE-4A	56	1011	1A3	EE-8F-CB19	S
1A4	1A2-1A4-MTS	20	A	AUX/EE	12234	125 VDC XFER SW REQ FOR 1A4 BUS	EE-4A	56	1011	1A4	EE-8G-CB15	S
1A3	1A3	3	A	AUX/EE	12234	4.16KV DISTRIBUTION BUS	EE-4A	56	1016	11WC18N1A	1A3-3	S
1A3	1A3-10	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO AC-10C	AC-RW	56	1011	1A3	1A3	SR
1A3	1A3-11	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO XFMR T1B-3A	EE-4A	56	1011	1A3	1A3	SR
1A3	1A3-12	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO XFMR T1B-3B	EE-4A	56	1011	1A3	1A3	SR
1A3	1A3-13	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO XFMR T1B-3C	EE-4A	56	1011	1A3	1A3	SR
1A3	1A3-16	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO FW-6	FW-AFW	56	1011	1A3	1A3	SR
1A3	1A3-20	3	A	AUX/EE	12234	DG1 FEEDER BREAKER 4.16KV BUS 1A3	DG	56	1011	1A3	DG1	SR
1A3	1A3-9	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO AC-10A	AC-RW	56	1011	1A3	1A3	SR
1A4	1A4	3	A	AUX/EE	12234	4.16 KV DISTRIBUTION BUS	EE-4A	56	1016	16WC18N1A	1A4-18	S
1A4	1A4-1	3	A	AUX/EE	12234	DG2 FEEDER BREAKER 4.16KV BUS 1A4	DG	56	1011	1A4	DG2	SR
1A4	1A4-10	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO XFMR T1B-4A	EE-4A	56	1011	1A4	1A4	SR
1A4	1A4-11	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO AC-10B	AC-RW	56	1011	1A4	1A4	SR
1A4	1A4-12	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO AC-10D	AC-RW	56	1011	1A4	1A4	SR
1A4	1A4-8	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO XFMR T1B-4C	EE-4A	56	1011	1A4	1A4	SR
1A4	1A4-9	3	A	AUX/EE	12234	4.16KV FEEDER BREAKER TO XFMR T1B-4B	EE-4A	56	1011	1A4	1A4	SR
1B3A	1B3A	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10WC21N5B	1B3A-1B3A	S
1B3A	1B3A-1B3A	2	A	AUX/EE	12234	480V FEEDER BREAKER TO 480V BUS 1B3A	EE-4B	56	1011	1B3A	T1B-3A	SR
1B3A	1B3A-2	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-3A1	EE-5	56	1011	1B3A	1B3A	S
1B3A	1B3A-3	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-3A2	EE-5	56	1011	1B3A	1B3A	S
1B3A	1B3A-4	2	A	AUX/EE	12234	480V FEEDER BREAKER TO CH-1A	CH	56	1011	1B3A	1B3A	SR
1B3A	1B3A-4A-MTS	20	A	AUX/EE	12234	125 VDC XFER SW	EE-4B	56	1011	1B3A-4A	EE-8F-CB14	S
1B3A	1B3A-7	2	A	AUX/EE	12234	480V FEEDER BREAKER TO VA-3A	VA-CON	56	1011	1B3A	1B3A	SR
1B3B	1B3B	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10WC9N5B	1B3B-1B3B	S
1B3B	1B3B-1B3B	2	A	AUX/EE	12234	480V FEEDER BREAKER TO 480V BUS 1B3B	EE-4B	56	1011	1B3B	T1B-3B	SR
1B3B	1B3B-2	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-3B1	EE-5	56	1011	1B3B	1B3B	S
1B3B	1B3B-4	2	A	AUX/EE	12234	480V FEEDER BREAKER TO AC-3A	AC-CCW	56	1011	1B3B	1B3B	SR
1B3B-4B	1B3B-4B	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10WC9N5B	BT-1B4B	S
1B3B-4B	1B3B-4B-5	2	A	AUX/EE	12234	480V FEEDER BREAKER TO CH-1C	CH	56	1011	1B3B-4B	1B3B-4B	SR
1B3B-4B	1B3B-4B-MTS	20	A	AUX/EE	12234	125 VDC XFER SW	EE-4B	56	1011	1B3B-4B	EE-8G-CB20	S
1B3B	1B3B-6	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-3B3	EE-4B	56	1011	1B3B	1B3B	S
1B3C	1B3C	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10WC10N4A	1B3C-1B3C	S
1B3C	1B3C-1	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-3C1	EE-5	56	1011	1B3C	1B3C	S
1B3C	1B3C-1B3C	2	A	AUX/EE	12234	480V FEEDER BREAKER TO 480V BUS 1B3C	EE-4B	56	1011	1B3C	T1B-3C	SR
1B3C	1B3C-2	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-3C2	EE-5	56	1011	1B3C	1B3C	S
1B3C-4C	1B3C-4C	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10WC10N4A	BT-1B3C	S
1B3C-4C	1B3C-4C-4	2	A	AUX/EE	12234	480V FEEDER BREAKER TO AC-3C	AC-CCW	56	1011	1B3C-4C	1B3C-4C	SR
1B3C	1B3C-4C-MTS	20	A	AUX/EE	12234	125 VDC XFER SW	EE-4B	56	1011	1B3C-4C	EE-8F-CB12	S
1B4A	1B4A	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10ED15S7D	1B4A-1B4A	S
1B4A	1B4A-1	2	A	AUX/EE	12234	480V FEEDER BREAKER TO AC-3B	AC-CCW	56	1011	1B4A	1B4A	SR
1B4A	1B4A-1B4A	2	A	AUX/EE	12234	480V FEEDER BREAKER TO 480V BUS 1B4A	EE-4B	56	1011	1B4A	T1B-4A	SR
1B4A	1B4A-2	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-4A1	EE-5	56	1011	1B4A	1B4A	S
1B4A	1B4A-3	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-4A2	EE-5	56	1011	1B4A	1B4A	S
1B4B	1B4B	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	10ED12N5B	1B4B-1B4B	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
1B4B	1B4B-1B4B	2	A	AUX/EE	12234	480V FEEDER BREAKER TO 480V BUS 1B4B	EE-4B	56	1011	1B4B	T1B-4B	SR
1B4B	1B4B-2	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-4B1	EE-5	56	1011	1B4B	1B4B	S
1B4C	1B4C	2	A	AUX/EE	12234	480V DISTRIBUTION BUS	EE-4B	56	1011	15WC4N4D	1B4C	S
1B4C	1B4C-1B4C	2	A	AUX/EE	12234	480V FEEDER BREAKER TO 480V BUS 1B4C	EE-4B	56	1011	1B4C	T1B-4C	SR
1B4C	1B4C-2	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-4C1	EE-5	56	1011	1B4C	1B4C	S
1B4C	1B4C-6	2	A	AUX/EE	12234	480V FEEDER BREAKER TO CH-1B	CH	56	1011	1B4C	1B4C	SR
1B4C	1B4C-7	2	A	AUX/EE	12234	480V FEEDER BREAKER TO MCC-4C4	EE-4B	56	1011	1B4C	1B4C	S
1B4C	1B4C-8	2	A	AUX/EE	12234	480V FEEDER BREAKER TO VA-3B	VA-CON	56	1011	1B4C	1B4C	SR
T1C-3A	1C3A-1	1	A	AUX/EE	12246	MPP-1C3A-1 120/280 V POWER PANEL	EE	56	1011	T1C-3A	1C3A	S
43/EE-8K/T	43/EE-8K/T	14	A	AUX/EE	12244	TRANSFER SWITCH	EE-8A	56	1011	1WC3S6D	EE-8K/EE-8T	S
43/EE-8L/U	43/EE-8L/U	14	A	AUX/EE	12244	TRANSFER SWITCH	EE-8B	56	1011	0WD8N6D	EE-8L/EE-8U	S
AI-179	43/RC-2B	20	A	INV	2111	AFW CONTROLS TRANSFER SWITCH	FW-AFW	77	1013	AI-179	NA	S
CB-1,2,3	43B/AI-185	20	A	INV	16956	SELECTOR SWITCH FOR PRESSURIZER LEVEL	UNK	77	1036	CB-1,2,3	NA	S
AI-66A	A/LI-911/912	20	A	DHR	21360	LEVEL INDICATOR FOR RC-2A	MS	77	1036	AI-66A	NA	S
A/LT-911	A/LT-911	18	A	DHR	21360	RC-2A LEVEL INDICATION	MS	CONT	1002	8WDD8NII	NA	S
A/LT-912	A/LT-912	18	A	DHR	21361	RC-2B LEVEL INDICATION	MS	CONT	1000	9WEE39NIII	NA	S
AI-196	A/PA-120-1	20	A	PC	40239	PRESSURE SIGNAL ISOLATOR FOR PRESSURIZER PRES	RC	57	1013	AI-196	NA	S
AI-196	A/PA-120-2	20	A	PC	40239	PRESSURE SIGNAL ISOLATOR FOR PRESSURIZER PRES	RC	57	1013	AI-196	NA	S
AI-196	A/PC-120	20	A	PC	40239	PRESSURE CONTROLLER FOR PRESSURIZER PRESSURE	RC	57	1013	AI-196	NA	S
AI-66A	A/PI-120	20	A	PC	40239	PRESSURE INDICATOR FOR PRESSURIZER PRESSURE	RC	77	1036	AI-66A	NA	S
AI-66A	A/PI-913/914	20	A	DHR	21360	RC-2A PRESSURE INDICATOR	MS	77	1036	AI-66A	NA	S
AI-196	A/PM-120	20	A	PC	40239	PRESSURE SIGNAL CONVERTER FOR PRESSURIZER PRE	RC	57	1013	AI-196	NA	S
GM-1	A/PMI-105	20	A	DHR	15820	VOLTAGE TO CURRENT CONVERTER	RC	77	1036	GM-1	NA	S
GM-2	A/PMI-115	20	A	DHR	2111	PRESSURIZER PRESSURE VOLTAGE TO CURRENT CONVE	RC	77	1036	GM-2	NA	S
GM-1	A/PMO-105	20	A	DHR	15820	VOLTAGE TO CURRENT CONVERTER	RC	77	1036	GM-1	NA	S
GM-2	A/PMO-115	20	A	DHR	2111	PRESSURIZER PRESSURE VOLTAGE TO CURRENT CONVE	RC	77	1036	GM-2	NA	S
A/PT-120	A/PT-120	18	A	PC	40239	PZR PRESSURE	RC	CONT	1018	18WDD12NII	NA	S
A/PT-913	A/PT-913	18	A	DHR	21360	RC-2A PRESSURE INDICATION	MS	CONT	1002	08WDD07NII	NA	S
A/PT-914	A/PT-914	18	A	DHR	21361	RC-2B PRESSURE INDICATION	MS	CONT	1000	9WEE39NIII	NA	S
CB-4	A/RI-001X	20	A	RC	24276	INDICATOR FOR NUETRON FLUX MONITORING	AI-NI	77	1036	CB-4	AI-40A-05	S
CB-4	A/RI-001Y	20	A	RC	24276	INDICATOR FOR NUETRON FLUX MONITORING	AI-NI	77	1036	CB-4	AI-40A-05	S
A/TE-112C	A/TE-112C	19	A	DHR	16294	RCS TEMPERATURE ELEMENT	RC	CONT	1008	10WBB26NII	NA	S
A/TE-112H	A/TE-112H	19	A	DHR	16294	RCS TEMPERATURE ELEMENT	RC	CONT	1008	24WBB25NII	NA	S
A/TE-122C	A/TE-122C	19	A	DHR	16082	RCS TEMPERATURE ELEMENT	RC	CONT	1010	18WCC18NIII	NA	S
A/TE-122H	A/TE-122H	19	A	DHR	16082	RCS TEMPERATURE ELEMENT	RC	CONT	1008	2WCC18NIII	NA	S
CB-1,2,3	A/TI-112C	20	A	DHR	16294	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40A-01	S
CB-1,2,3	A/TI-112H	20	A	DHR	16294	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40A-01	S
CB-1,2,3	A/TI-122C	20	A	DHR	16082	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40A-01	S
CB-1,2,3	A/TI-122H	20	A	DHR	16082	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40A-01	S
AI-214	A/TM-112CA	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-112CB	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-112CC	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-112HA	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-112HB	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-112HC	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AI-214	A/TM-122CA	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-122CB	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-122CC	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-122HA	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-122HB	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
AI-214	A/TM-122HC	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-214	NA	S
GM-2	A/TMI-112C/122C	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	GM-2	NA	S
GM-2	A/TMI-112H/122H	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	GM-2	NA	S
GM-2	A/TMO-112C/122C	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	GM-2	NA	S
GM-2	A/TMO-112H/122H	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	GM-2	NA	S
AI-214	A/TT-112CA	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-112CB	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-112HA	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-112HB	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-122CA	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-122CB	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-122HA	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TT-122HB	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-214	NA	S
AI-214	A/TY-112H	18	A	DHR	16294	RCS LOOP 1 COMPENSATOR	RC	20	0989	AI-214	NA	S
AI-214	A/TY-122H	18	A	DHR	16082	RCS LOOP 2 COMPENSATOR	RC	20	0989	AI-214	NA	S
AC-10A	AC-10A	6	A	AUX/RW	10454	RW PUMP	AC-RW	INTK	0994	1ECC1S103	NA	S
AC-10A	AC-10A-M	6	A	AUX/RW	12239	RW PUMP MOTOR	AC-RW	INTK	0994	1ECC1S103	1A3-9	S
AC-10B	AC-10B	6	A	AUX/RW	10454	RW PUMP	AC-RW	INTK	0994	1ECC1N103	NA	S
AC-10B	AC-10B-M	6	A	AUX/RW	10454	RW PUMP MOTOR	AC-RW	INTK	0994	1ECC1N103	1A4-11	S
AC-10C	AC-10C	6	A	AUX/RW	10454	RW PUMP	AC-RW	INTK	0994	1EEC1S104	NA	S
AC-10C	AC-10C-M	6	A	AUX/RW	10454	RW PUMP MOTOR	AC-RW	INTK	0994	1EEC1S104	1A3-10	S
AC-10D	AC-10D	6	A	AUX/RW	10454	RW PUMP	AC-RW	INTK	0994	1ECC1N104	NA	S
AC-10D	AC-10D-M	6	A	AUX/RW	12239	RW PUMP MOTOR	AC-RW	INTK	0997	1ECC1N104	1A4-12	S
AC-12A	AC-12A	0	A	AUX/RW	10454	RAW WATER STRAINER	AC-RW	INTK	994	3W'BB-3N'102	NA	S
AC-12A	AC-12A-M	0	A	AUX/RW	43125	RAW WATER STRAINER MOTOR	AC-RW	INTK	1001	3W'BB-3N'102	MCC-3B1	SR
AC-12B	AC-12B	0	A	AUX/RW	10454	RAW WATER STRAINER	AC-RW	INTK	994	13W'BB-16N'104	NA	S
AC-12B	AC-12B-M	0	A	AUX/RW	43125	RAW WATER STRAINER MOTOR	AC-RW	INTK	999	13W'BB-16N'104	MCC-4C1	SR
AC-1A	AC-1A	21	P	AUX/CCW	55195	CCW HX	AC-CCW	4	0994	06WD18N5B	NA	S
AC-1B	AC-1B	21	P	AUX/CCW	55195	CCW HX	AC-CCW	4	1003	06WD18N5B	NA	S
AC-1C	AC-1C	21	P	AUX/CCW	55195	CCW HX	AC-CCW	18	0994	23WC24N4A	NA	S
AC-1D	AC-1D	21	P	AUX/CCW	55195	CCW HX	AC-CCW	18	0996	23WC24N5B	NA	S
AC-2	AC-2	21	P	AUX/CCW	55195	CCW SURGE TANK	AC-CCW	69	1030	6WL24N7A	NA	S
AC-3A	AC-3A	5	A	AUX/CCW	55195	CCW PUMP	AC-CCW	69	1027	1WN9N7A	NA	S
AC-3A	AC-3A-M	5	A	AUX/CCW	12240	CCW PUMP MOTOR	AC-CCW	69	1027	4WN9N7A	1B3B-4	S
AC-3B	AC-3B	5	A	AUX/CCW	55195	CCW PUMP	AC-CCW	69	1027	01WN04S8A	NA	S
AC-3B	AC-3B-M	5	A	AUX/CCW	12240	CCW PUMP MOTOR	AC-CCW	69	1027	04WN04S8A	1B4A-1	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AC-3C	AC-3C	5	A	AUX/CCW	55195	CCW PUMP	AC-CCW	69	1027	01WN03N8A	NA	S
AC-3C	AC-3C-M	5	A	AUX/CCW	12241	CCW PUMP MOTOR	AC-CCW	69	1027	04WN03N8A	1B3C-4C-4	S
AC-4A	AC-4A	21	P	AUX/CCW	41741	SHUTDOWN COOLING HEAT EXCHANGER	AC-CCW	14	0994	13E'L-17S'7A	NA	S
AC-4B	AC-4B	21	P	AUX/CCW	41741	SHUTDOWN COOLING HEAT EXCHANGER	AC-CCW	15	0994	13W'E-17S'7A	NA	S
AC-8	AC-8	21	P	AUX/CCW	41741	STORAGE POOL HEAT EXCHANGER	AC-SFP	5	0995	9W'R-0N'5C	NA	S
AI-40A	AI-40A-1	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR CB-3	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-12	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-214	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-16	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-40A	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-17	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR DIST BUS I-BUS-A1	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-18	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-196	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-2	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL CB-4 AUX	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-20	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL CB-1,2,3 & C	EE-8B	77	1036	AI-40A	I-BUS-A1	S
AI-40A	AI-40A-21	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-30B	EE-8B	77	1036	AI-40A	I-BUS-A1	S
AI-40A	AI-40A-22	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR QSPDS-A AI-208A	EE-8B	77	1036	AI-40A	I-BUS-A1	S
AI-40A	AI-40A-3	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-31A	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-5	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR CB-4	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-6	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR VA-81A	VA-CON	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-7	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-4A	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-8	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-184A	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40A	AI-40A-9	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-57	EE-8B	77	1036	AI-40A	I-BUS-A	S
AI-40B	AI-40B-1	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL CB-3	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-10	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-66B	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-11	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-54B	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-12	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-197	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-13	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-30B	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-14	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR VA-81B	VA-CON	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-15	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-33A	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-16	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-215	EE-8B	UA	UA	AI-40B	I-BUS-B	S
AI-40B	AI-40B-17	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR DIST BUS I-BUS-B1	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-19	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-30A	EE-8B	77	1036	AI-40B	I-BUS-B1	S
AI-40B	AI-40B-2	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-184A	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-20	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR QSPDS-B AI-208B	EE-8B	77	1036	AI-40B	I-BUS-B1	S
AI-40B	AI-40B-21	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL CB-1,2,3 & C	EE-8B	77	1036	AI-40B	I-BUS-B1	S
AI-40B	AI-40B-3	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL CB-4	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-5	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-4B	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-6	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL CB-4AUX	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-7	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-31B	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-8	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-65B	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40B	AI-40B-9	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-57	EE-8B	77	1036	AI-40B	I-BUS-B	S
AI-40C	AI-40C-1	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR CB-3	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-11	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR AI-10B	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-13	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR RM-050/051	RM	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-17	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR DIST BUS I-BUS-C1	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-19	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-33A	EE-8B	77	1036	AI-40C	I-BUS-C1	S
AI-40C	AI-40C-2	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-65A	EE-8B	77	1036	AI-40C	I-BUS-C	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AI-40C	AI-40C-21	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-45	EE-8B	77	1036	AI-40C	I-BUS-C1	S
AI-40C	AI-40C-3	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-31C	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-4	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-66A	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-5	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR CB-4	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-6	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-198	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-7	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-57	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-8	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-216	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40C	AI-40C-9	14	A	AUX/EE	12245	120VAC CIRCUIT BREAKER FOR PANEL AI-10A	EE-8B	77	1036	AI-40C	I-BUS-C	S
AI-40D	AI-40D-1	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR CB-3	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-10	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-21	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-11	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-10A	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-13	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-10B	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-17	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR BUS I-BUS-D1	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-19	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-33B	EE-8B	77	1036	AI-40D	I-BUS-D1	S
AI-40D	AI-40D-21	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-45	EE-8B	77	1036	AI-40D	I-BUS-D1	S
AI-40D	AI-40D-3	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-31D	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-4	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-65B	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-5	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL CB-4	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-6	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-66B	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-7	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-57	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-40D	AI-40D-9	14	A	AUX/EE	48119	120VAC CIRCUIT BREAKER FOR PANEL AI-33A	EE-8B	77	1036	AI-40D	I-BUS-D	S
AI-41A	AI-41A-1	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-107	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-10	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-44	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-11	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-128A	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-12	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL CB-1,2,3 & C	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-13	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-30B	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-14	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL CB-10,11	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-15	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-100	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-16	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR CB-20	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-17	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-45	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-2	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-66A	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-3	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL CB-4AUX	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-4	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-50	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-5	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-45	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-6	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-30A	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-7	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-65A	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-8	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-43A	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-9	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANELS AI-54A, B &	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-MAIN	14	A	AUX/EE	42195	125VDC MAIN CIRCUIT BREAKER FOR PANEL AI-41A	EE-8A	77	1036	AI-41A	DC-BUS-AI-41A	S
AI-41A	AI-41A-MTS	14	A	AUX/EE	42195	MTS 125VDC BUS#1 TO BUS#2	EE-8A	77	1036	AI-41A	EE-8F-CB20	S
AI-41B	AI-41B-1	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-107	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-10	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-44	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-11	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-128B	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-12	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL CB-1,2,3 & C	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-13	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-30A	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AI-41B	AI-41B-14	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL CB-10,11	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-15	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR AE-2	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-16	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR CB-20	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-17	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-65B	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-3	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL CB-4AUX	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-4	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-66B	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-5	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-45	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-6	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-30B	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-7	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANELS AI-101A & A	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-8	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-43B	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-9	14	A	AUX/EE	42195	125VDC CIRCUIT BREAKER FOR PANEL AI-100	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-MAIN	14	A	AUX/EE	42195	125VDC MAIN CIRCUIT BREAKER FOR PANEL AI-41B	EE-8A	77	1036	AI-41B	DC-BUS-AI-41B	S
AI-41B	AI-41B-MTS	14	A	AUX/EE	42195	MTS 125VDC BUS#1 TO BUS #2	EE-8A	77	1036	AI-41B	EE-8G-CB22	S
AI-42A	AI-42A-1	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-53	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-10	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-58	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-11	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR CB-20,22,23,24	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-12	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANELS AI-42 & AI-	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-2	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-56	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-3	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-100	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-4	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL IB-1A	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-5	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL CB-10,11	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-7	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL CB-1,2,3	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42A	AI-42A-8	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-195	EE-8B	77	1036	AI-42A	I-BUS-1	S
AI-42B	AI-42B-1	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-53	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-10	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-195	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-12	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANELS AI-187 & AI	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-2	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-50	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-3	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANELS AI-107,105,	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-4	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-55	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-5	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-101B	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-6	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL IB-2A	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-7	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL CB-10,11	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-8	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL AI-43B	EE-8B	77	1036	AI-42B	I-BUS-2	S
AI-42B	AI-42B-9	14	A	AUX/EE	48120	120VAC CIRCUIT BREAKER FOR PANEL CB-1,2,3 & C	EE-8B	77	1036	AI-42B	I-BUS-2	S
ATA-D1	ATA-D1	20	A	AUX/EE	12243	DG1 480V AUTO XFER SWITCH (EMER FEEDER)	DG	63	1013	2WD0N1A	MCC-4A1-A03	SR
ATA-D2	ATA-D2	20	A	AUX/EE	12243	DG2 480V AUTO XFER SWITCH (EMER FEEDER)	DG	64	1013	3WD0N2A	MCC-3B1-G2R	SR
ATD-D1	ATD-D1	20	A	AUX/EE	12244	DG1 125VDC AUTO XFER SWITCH (NORM FEEDER)	DG	63	1013	7WD12N1A	I-BUS-1	SR
ATD-D2	ATD-D2	20	A	AUX/EE	12244	DG2 125VDC AUTO XFER SWITCH (NORM FEEDER)	DG	64	1013	8WD0N2A	I-BUS-2	SR
AI-66B	B/LI-911/912	20	A	DHR	21360	LEVEL INDICATOR FOR RC-2A	MS	77	1036	AI-66B	NA	S
B/LT-911	B/LT-911	18	A	DHR	21360	RC-2A LEVEL INDICATION	MS	CONT	1011	15WCC3NI	NA	S
B/LT-912	B/LT-912	18	A	DHR	21361	RC-2B LEVEL INDICATION	MS	CONT	1002	14WCC8NIV	NA	S
AI-197	B/PA-120-1	20	A	PC	40239	PRESSURE SIGNAL ISOLATOR FOR PRESSURIZER PRES	RC	56	1011	AI-197	NA	S
AI-197	B/PA-120-2	20	A	PC	40239	PRESSURE SIGNAL ISOLATOR FOR PRESSURIZER PRES	RC	56	1011	AI-197	NA	S
AI-197	B/PC-120	20	A	PC	40239	PRESSURE CONTROLLER FOR PRESSURIZER PRESSURE	RC	56	1011	AI-197	NA	S
AI-66B	B/PI-120	20	A	PC	40239	PRESSURE INDICATOR FOR PRESSURIZER PRESSURE	RC	77	1036	AI-66B	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AI-66B	B/PI-913/914	20	A	DHR	21360	RC-2A PRESSURE INDICATOR	MS	77	1036	AI-66B	NA	S
AI-197	B/PM-120	20	A	PC	40239	PRESSURE SIGNAL MODIFIER FOR PRESSURIZER PRES	RC	56	1011	AI-197	NA	S
B/PT-120	B/PT-120	18	A	PC	40239	PZR PRESSURE TRANSMITTER	RC	CONT	1019	15WCC4NI	NA	S
B/PT-913	B/PT-913	18	A	DHR	21360	RC-2A PRESSURE INDICATION	MS	CONT	1011	15WCC3NI	NA	S
B/PT-914	B/PT-914	18	A	DHR	21361	RC-2B PRESSURE INDICATION	MS	CONT	1002	14WCC8NIV	NA	S
B/TE-112C	B/TE-112C	19	A	DHR	16294	RCS TEMPERATURE ELEMENT	RC	CONT	1008	20WCC26NII	NA	S
B/TE-112H	B/TE-112H	19	A	DHR	16294	RCS TEMPERATURE ELEMENT	RC	CONT	1008	24WBB24NII	NA	S
B/TE-122C	B/TE-122C	19	A	DHR	16082	RCS TEMPERATURE ELEMENT	RC	CONT	1008	03WBB21NIII	NA	S
B/TE-122H	B/TE-122H	19	A	DHR	16082	RCS TEMPERATURE ELEMENT	RC	CONT	1008	2WCC18NIII	NA	S
CB-1,2,3	B/TI-112C	20	A	DHR	16294	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40B-01	S
CB-1,2,3	B/TI-112H	20	A	DHR	16294	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40B-01	S
CB-1,2,3	B/TI-122C	20	A	DHR	16082	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40B-01	S
CB-1,2,3	B/TI-122H	20	A	DHR	16082	RCS TEMPERATURE INDICATOR	RC	77	1036	CB-1,2,3	AI-40B-01	S
AI-215	B/TM-112CA	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-112CB	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-112CC	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-112HA	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-112HB	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-112HC	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-122CA	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-122CB	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-122CC	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-122HA	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-122HB	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-215	B/TM-122HC	20	A	DHR	16082	RCS TEMPERATURE SIGNAL MODIFIER	RC	20	0989	AI-215	NA	S
AI-10B	B/TMI-112C/122C	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	AI-10B	NA	S
AI-10B	B/TMI-112H/122H	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	AI-10B	NA	S
AI-10B	B/TMO-112C/122C	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	AI-10B	NA	S
AI-10B	B/TMO-112H/122H	20	A	DHR	16294	RCS TEMPERATURE SIGNAL MODIFIER	RC	77	1036	AI-10B	NA	S
AI-215	B/TT-112CA	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-112CB	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-112HA	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-112HB	18	A	DHR	16294	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-122CA	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-122CB	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-122HA	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TT-122HB	18	A	DHR	16082	RCS TEMPERATURE TRANSMITTER	RC	20	0989	AI-215	NA	S
AI-215	B/TY-112H	18	A	DHR	16294	RCS LOOP 2 COMPENSATOR	RC	20	0989	AI-215	NA	S
AI-215	B/TY-122H	18	A	DHR	16082	RCS LOOP 2 COMPENSATOR	RC	20	0989	AI-215	NA	S
1B3A	BT-1B3A	2	A	AUX/EE	12234	BUS TIE 480V BUS 1B3A & BUS 1B3A-4A	EE-4B	56	1011	1B3A	1B3A	SR
1B3C	BT-1B3C	2	A	AUX/EE	12234	BUS TIE 480V BUS 1B3C & BUS 1B3C-4C	EE-4B	56	1011	1B3C	1B3C	SR
1B4B	BT-1B4B	2	A	AUX/EE	12234	BUS TIE 480V BUS 1B4B & BUS 1B3B-4B	EE-4B	56	1011	1B4B	1B4B	SR

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
CH-11A	CH-11A	21	P	INV,R,P	10478	BAST	CH	26	1013	28EU9S7A	NA	S
CH-11B	CH-11B	21	P	INV,R,P	10478	BAST	CH	26	1013	42EU9S7A	NA	S
CH-1A	CH-1A	5	A	INV,R,P	10476	CHARGING PUMP	CH	6	0991	05EU04N6E	NA	S
CH-1A	CH-1A LO COOLER	21	P	AUX/CCW	55196	CHARGING PUMP LUBE OIL COOLER	LO	6	991	45WT06N6E	NA	S
CH-1A	CH-1A-M	5	A	INV	12240	CHARGING PUMP MOTOR	CH	6	0991	45WT06N6E	1B3A-4	S
CH-1B	CH-1B	5	A	INV,R,P	10476	CHARGING PUMP	CH	6	0991	34WT6N6E	NA	S
CH-1B	CH-1B LO COOLER	21	P	AUX/CCW	55196	CHARGING PUMP LUBE OIL COOLER	LO	6	991	31WT06N6E	NA	S
CH-1B	CH-1B-M	5	A	INV	12241	CHARGING PUMP MOTOR	CH	6	0993	31WT6N6E	1B4C-6	S
CH-1C	CH-1C	5	A	INV,R,P	10476	CHARGING PUMP	CH	6	0991	17WT7N6E	NA	S
CH-1C	CH-1C LO COOLER	21	P	AUX/CCW	55196	CHARGING PUMP LUBE OIL COOLER	LO	6	991	12WT06N6E	NA	S
CH-1C	CH-1C-M	5	A	INV	12240	CHARGING PUMP MOTOR	CH	6	0993	12WT6NE	1B3B-4B-5	S
CH-22A	CH-22A	21	P	INV,R,P	10476	CHARGING PUMP OUTLET ACCUMULATOR	CH	6	0993	51WT11N6E	NA	S
CH-22B	CH-22B	21	P	INV,R,P	10476	CHARGING PUMP OUTLET ACCUMULATOR	CH	6	0993	36WT11N6E	NA	S
CH-22C	CH-22C	21	P	INV,R,P	10476	CHARGING PUMP OUTLET ACCUMULATOR	CH	6	0993	18WT10N6E	NA	S
CH-26A	CH-26A	21	P	INV,R,P	10476	CHARGING PUMP INLET ACCUMULATOR	CH	6	0993	48WT11N6E	NA	S
CH-26B	CH-26B	21	P	INV,R,P	10476	CHARGING PUMP INLET ACCUMULATOR	CH	6	0993	33WT11N6E	NA	S
CH-26C	CH-26C	21	P	INV,R,P	10476	CHARGING PUMP INLET ACCUMULATOR	CH	6	0993	16WT10N6E	NA	S
CH-6	CH-6	21	P	INV,R,P	55158	REGENERATIVE HEAT EXCHANGER	CH	CONT	0994	13WEE-16NIII	NA	S
CH-7	CH-7	21	P	AUX/CCW	41741	LET DOWN HEAT EXCHANGER	CH	12	0992	6E'Q-0S'6E	NA	S
CB-4	D/RI-001X	20	P	RC	24276	INDICATOR FOR NUETRON FLUX MONITORING	AI-NI	77	1036	CB-4	AI-40A-05	S
CB-4	D/RI-001Y	20	P	RC	24276	INDICATOR FOR NUETRON FLUX MONITORING	AI-NI	77	1036	CB-4	AI-40A-05	S
D1	D1-69-8FT1	3	A	AUX/EE	17408	FEEDER BREAKER TO FO-4A-1-M	DG	63	1007	D1	DP1-5	S
D1	D1-70-8FT2	3	A	AUX/EE	17408	FEEDER BREAKER TO FO-4B-1-M	DG	63	1007	D1	DP1-5	S
D2	D2-69-8FT1	3	A	AUX/EE	17408	FEEDER BREAKER TO FO-4A-2-M	DG	64	1007	D2	DP2-5	S
D2	D2-70-8FT2	3	A	AUX/EE	17408	FEEDER BREAKER TO FO-4B-2-M	DG	64	1007	D2	DP2-5	S
AI-41A	DC-BUS-AI-41A	14	A	AUX/EE	42195	125VDC PANEL BUS	EE-8A	77	1036	AI-41A	EE-8F-CB20	S
AI-41B	DC-BUS-AI-41B	14	A	AUX/EE	42195	125VDC PANEL BUS	EE-8A	77	1036	AI-41B	EE-8G-CB22	S
DG-1	DG-1	17	A	AUX/EDG	17388	EDG # 1 ENGINE (EE-1F)	DG	63	1010	03EF-08N1A	NA	SR
DG-2	DG-2	17	A	AUX/EDG	16303	EDG # 2 ENGINE (EE-1G)	DG	64	1010	03EF-07S2B	NA	SR
AI-133A	DP1-D1	2	A	AUX/EE	17408	480VAC DISTRIBUTION PANEL	EE	63	1007	AI-133A	DP1-D1-MAIN-1	S
AI-133A	DP1-D1-3	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO SLO & JW-2-1-M	LO	63	1007	AI-133A	DP1-D1	S
AI-133A	DP1-D1-4	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO LO-40-1-MS	LO	63	1007	AI-133A	DP1-D1	S
AI-133A	DP1-D1-5	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO 8FT1 & 8FT2	EE	63	1007	AI-133A	DP1-D1	S
AI-133A	DP1-D1-MAIN-1	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO DIST PANEL DP1	EE	63	1007	AI-133A	ATA-D1	S
AI-133A	DP1-D1-MAIN-2	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO DIST PANEL DP1	EE	63	1007	AI-133A	ATA-D1	S
AI-133A	DP1-D1-SLO	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO LO-33-1-M	LO	63	1007	AI-133A	DP1-D1-3	S
AI-133B	DP1-D2	2	A	AUX/EE	17408	480VAC DISTRIBUTION PANEL	EE	64	1007	AI-133B	DP1-D2-MAIN-1	S
AI-133B	DP1-D2-3	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO SLO & JW-2-2	LO	64	1007	AI-133B	DP1-D2	S
AI-133B	DP1-D2-4	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO LO-40-2-MS	LO	64	1007	AI-133B	DP1-D2	S
AI-133B	DP1-D2-5	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO 8FT1 & 8FT2	EE	64	1007	AI-133B	DP1-D2	S
AI-133B	DP1-D2-MAIN-1	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO DIST PANEL DP2	EE	64	1007	AI-133B	ATA-D2	S
AI-133B	DP1-D2-MAIN-2	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO DIST PANEL DP2	EE	64	1007	AI-133B	ATA-D2	S
AI-133B	DP1-D2-SLO	2	A	AUX/EE	17408	480VAC FEEDER BREAKER TO LO-33-2-M	LO	64	1007	AI-133B	DP1-D2-3	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AI-133A	DP2-D1-1	14	A	AUX/EE	17408	125VDC POWER TO FIELD FLASH, EXCITER & VOLT R	EE-8A	63	1007	AI-133A	DP2-D1	S
AI-133A	DP2-D1-2	14	A	AUX/EE	17408	125VDC POWER TO ENGINE CTRL PANEL	EE-8A	63	1007	AI-133A	DP2-D1	S
AI-133A	DP2-D1-3	14	A	AUX/EE	17408	125VDC POWER TO DIESEL DAMPERS	EE-8A	63	1007	AI-133A	DP2-D1	S
AI-133A	DP2-D1-MAIN	14	A	AUX/EE	17408	125VDC POWER TO PNL DP2-D1	EE-8A	63	1007	AI-133A	ATD-D1	S
AI-133B	DP2-D2-1	14	A	AUX/EE	17408	125VDC POWER TO FIELD FLASH, EXCITER, VOLT RE	EE-8A	64	1007	AI-133B	DP2-D2	S
AI-133B	DP2-D2-2	14	A	AUX/EE	17408	125VDC POWER TO ENGINE CTRL PANEL	EE-8A	64	1007	AI-133B	DP2-D2	S
AI-133B	DP2-D2-3	14	A	AUX/EE	17408	125VDC POWER TO DIESEL DAMPERS	EE-8A	64	1007	AI-133B	DP2-D2	S
AI-133B	DP2-D2-MAIN	14	A	AUX/EE	17408	125VDC POWER TO PNL DP2-D2	EE-8A	64	1007	AI-133B	ATD-D2	S
DW-46A-2	DW-46A-2	10	P	AUX/CCW	41741	VACUUM DEAERATOR	DW	69	1025	39W'T-6N'6A	NA	S
DW-46B-2	DW-46B-2	10	P	AUX/CCW	41741	VACUUM DEAERATOR	DW	69	1025	39W'T-6N'6C	NA	S
LCV-101-1	E/P-101-1	0	A	INV	1267	LCV-101-1 E/P CONVERTER	CH	CONT	0997	9WEE-17NIII	NA	S
LCV-101-2	E/P-101-2	0	A	INV	1267	LCV-101-2 E/P CONVERTER	CH	CONT	0997	10WEE-20NIII	NA	S
HCV-1107B	E/P-1107B	0	A	AUX/IA	15793	TRANSDUCER FOR HCV-1107B	FW-AFW	81	1038	00WH04N3A	NA	S
HCV-1108B	E/P-1108B	0	A	AUX/IA	15794	TRANSDUCER FOR HCV-1108B	FW-AFW	81	1040	02EJ00N5B	NA	S
HCV-400C	E/P-400C	18	A	AUX/IA	15339	CONOFLOW ELECTRO-PNEUMATIC TRANSDUCER	AC-CCW	69	1027	08WP03N6C	AI-40A-1	S
HCV-401C	E/P-401C	18	A	AUX/IA	15342	CONOFLOW ELECTRO-PNEUMATIC TRANSDUCER	AC-CCW	69	1027	10WP05N6C	AI-40A-1	S
HCV-402C	E/P-402C	18	A	AUX/IA	15345	CONOFLOW ELECTRO-PNEUMATIC TRANSDUCER	AC-CCW	69	1028	06WP05N6C	AI-40A-1	S
HCV-403C	E/P-403C	18	A	AUX/IA	15348	CONOFLOW ELECTRO-PNEUMATIC TRANSDUCER	AC-CCW	69	1027	02WP03N6C	AI-40A-1	S
HCV-497	E/P-497	0	A	AUX/EE	15418	HCV-497 E/P CONVERTER	AC-CCW	4	0993	12W'D-10N'6D	NA	S
EE-114	EE-114	14	A	AUX/EE	12234	Battery Charger 3 AC Power Transfer Switch	EE	56	1011	08E'D-11N'7A	MCC-3C1-A2L/4B1-A03	S
EE-4N	EE-4N	4	A	AUX/EE	12234	INVERTER "A" BYPASS TRANSFORMER	EE-8A	56	1011	6WC8N6D	MCC-3B1-E3R	S
EE-4P	EE-4P	4	A	AUX/EE	12234	INVERTER "B" BYPASS TRANSFORMER	EE-8B	56	1011	20WC5N6D	MCC-4B1-A4R	S
EE-4Q	EE-4Q	4	A	AUX/EE	12234	INVERTER "C" BYPASS TRANSFORMER	EE-8A	56	1011	6WC5N6D	MCC-3C1-A4R	S
EE-4R	EE-4R	4	A	AUX/EE	12234	INVERTER "D" BYPASS TRANSFORMER	EE-8B	56	1011	20WC3N6D	MCC-4C1-F05	S
EE-4S	EE-4S	4	A	AUX/EE	12234	480VAC/120VAC TRANSFORMER	EE	56	1011	0WC11N6D	MCC-3A1-A2R	S
EE-4T	EE-4T	4	A	AUX/EE	12234	480VAC/120VAC TRANSFORMER	EE	56	1011	0WD3N6D	MCC-4A1-A05	S
EE-4U	EE-4U	4	A	AUX/EE	12234	SWING INVERTER EE-8U BYPASS TRANSFORMER	EE-8B	56	1011	2WD8N6D	MCC-4A1-A04	S
EE-4V	EE-4V	4	A	AUX/EE	12234	SWING INVERTER EE-8T BYPASS TRANSFORMER	EE-8A	56	1011	1WC6S6D	MCC-3A1-F03A	S
EE-8A	EE-8A	15	A	AUX/EE	12234	125VDC BATTERY #1	EE-8A	54	1012	9WC15N7B	EE-8C	S
EE-8B	EE-8B	15	A	AUX/EE	12234	125VDC BATTERY #2	EE-8A	55	1012	0WD12N7B	EE-8D	S
EE-8C	EE-8C	16	A	AUX/EE	12234	BATTERY CHARGER #1	EE-8A	56	1011	9WC13N6D	MCC-3B1-C2L	S
EE-8D	EE-8D	16	A	AUX/EE	12234	BATTERY CHARGER #2	EE-8A	56	1011	16WC14N6D	MCC-4A1-C02	S
EE-8E	EE-8E	16	A	AUX/EE	12234	BATTERY CHARGER #3	EE-8A	56	1011	0WD0N7A	MCC-3C1-A2L	S
EE-8F	EE-8F	14	A	AUX/EE	12234	125VDC DIST BUS IN PANEL EE-8F	EE-8A	56	1011	EE-8F	DC1-1	S
EE-8F	EE-8F-CB1	14	A	AUX/EE	12244	125VDC FEEDER BREAKER TO BUS EE-8F	EE-8A	56	1011	EE-8F	EE-8A	S
EE-8F	EE-8F-CB10	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR AI-41B-MTS	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB11	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EMER LTG PNL ELP1	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB12	14	A	AUX/EE	12244	125VDC NORM POWER TO BUSES 1B3C & 1B3C-4C VIA	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB13	14	A	AUX/EE	12244	125VDC EMER POWER TO BUSES 1B4A, 1B4B, 1B4C, 1	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB14	14	A	AUX/EE	12244	125VDC NORM POWER TO BUSES 1B3A, 1B3B, 1B3A-4	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB15	14	A	AUX/EE	12244	125VDC EMER POWER TO 1A2-1A4-MTS	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB16	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PNL-1A	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB18	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PANEL AI-179	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB19	14	A	AUX/EE	12244	125VDC NORM POWER VIA 1A1-1A3-MTS	EE-8A	56	1011	EE-8F	DC-BUS-1	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
EE-8F	EE-8F-CB2	14	A	AUX/EE	12244	125VDC FEEDER BREAKER TO EE-8F	EE-8A	56	1011	EE-8F	EE-8E	S
EE-8F	EE-8F-CB20	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PANEL AI-41A	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB21	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-8T SWING INVERTER	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB22	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-8K INVERTER	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB23	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR 125VDC PNL-1	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB24	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-8H INVERTER	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB3	14	A	AUX/EE	12244	125VDC FEEDER BREAKER TO EE-8F	EE-8A	56	1011	EE-8F	EE-8C	S
EE-8F	EE-8F-CB4	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EMER BEARING OIL PM	LO	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB5	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR STAT INV "1"	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB8	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR MTS AI-133B	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8F	EE-8F-CB9	14	A	AUX/EE	12244	125VDC NORM FEEDER BREAKER FOR PANEL AI-133A	EE-8A	56	1011	EE-8F	DC-BUS-1	S
EE-8G	EE-8G	14	A	AUX/EE	12234	125VDC DIST BUS IN PANEL EE-8G	EE-8A	56	1011	EE-8G	DC2-1	S
EE-8G	EE-8G-CB01	14	A	AUX/EE	12244	125VDC FEEDER BREAKER TO BUS EE-8G	EE-8A	56	1101	EE-8G	EE-8B	S
EE-8G	EE-8G-CB10	14	A	AUX/EE	12244	125VDC EMER FEEDER BREAKER FOR PANEL AI-133B	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB11	14	A	AUX/EE	12244	125VDC NORM FEEDER BREAKER FOR PANEL AI-133B	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB12	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-21	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB14	14	A	AUX/EE	12244	125VDC EMER POWER VIA XFER SW 1A1-1A3-MTS	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB15	14	A	AUX/EE	12244	125VDC NORM POWER VIA XFER SW 1A2-1A4-MTS	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB16	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PANEL AI-185	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB17	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PANEL AI-179	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB18	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR DC-PNL-2A	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB19	14	A	AUX/EE	12244	125VDC EMER POWER VIA SW 1B3A-4A-MTS	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB2	14	A	AUX/EE	12244	125VDC FEEDER BREAKER TO EE-8G	EE-8A	56	1011	EE-8G	EE-8E	S
EE-8G	EE-8G-CB20	14	A	AUX/EE	12244	125VDC NORM POWER VIA XFER SW 1B3B-4B-MTS	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB21	14	A	AUX/EE	12244	125VDC EMER POWER VIA XFER SW 1B3C-4C-MTS	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB22	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PANEL AI-41B	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB23	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR DC-PNL-2	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB24	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-8U SWING INVERTER	EE-8B	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB3	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR STAT INV "2"	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB5	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-8J INVERTER	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB6	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR EE-8L INVERTER	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB7	14	A	AUX/EE	12244	125VDC EMER POWER VIA XFER SW AI-41A-MTS	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB8	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR ELP-2	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8G	EE-8G-CB9	14	A	AUX/EE	12244	125VDC FEEDER BREAKER FOR PCE	EE-8A	56	1011	EE-8G	DC-BUS-2	S
EE-8H	EE-8H	16	A	AUX/EE	12234	125VDC/120VAC INVERTER "A"	EE-8A	56	1011	7WC6N6D	EE-8F-CB24	S
EE-8J	EE-8J	16	A	AUX/EE	12234	125VDC/120VAC INVERTER "B"	EE-8B	56	1011	18WC9N6D	EE-8G-CB5	S
EE-8K	EE-8K	16	A	AUX/EE	12234	125VDC/120VAC INVERTER "C"	EE-8A	56	1011	6WC5N6D	EE-8F-CB22	S
EE-8L	EE-8L	16	A	AUX/EE	12234	125VDC/120VAC INVERTER "D"	EE-8B	56	1011	18WC6N6D	EE-8G-CB6	S
EE-8P	EE-8P	16	A	AUX/EE	12234	125VDC/120VAC INVERTER	EE-8A	56	1011	1WC20N6D	EE-8F-CB5	S
EE-8Q	EE-8Q	16	A	AUX/EE	12234	125VDC/120VAC INVERTER	EE-8B	56	1011	18WC2N6D	EE-8G-CB3	S
EE-8T	EE-8T	16	A	AUX/EE	12244	125VDC/120VAC SWING INVERTER	EE-8A	56	1011	1WC1S6D	EE-8F-CB21	S
EE-8U	EE-8U	16	A	AUX/EE	12244	125VDC/120VAC SWING INVERTER	EE-8B	56	1011	0WD8N6D	EE-8G-CB24	S
FCV-1368	FCV-1368	7	A	DHR	56510	AFW PUMP FW-6 RECIRC TO EFWST	FW-AFW	19	993	07WC18N3A	NA	SR
FCV-1368	FCV-1368-20	0	A	AUX/IA	15861	3 WAY SOLENOID VALVE FOR FCV-1368	FW-AFW	19	0993	07WC18N3A	AI-41A-14	S
FCV-1368	FCV-1368-O	7	A	AUX/IA	15861	CONTROL VALVE OPERATOR FOR FCV-1368	FW-AFW	19	0993	07WC18N3A	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
FCV-1369	FCV-1369	7	A	DHR	56510	AFW PUMP FW-10 RECIRC	FW-AFW	19	991	03WC7N3AA	NA	SR
FCV-1369	FCV-1369-20	0	A	AUX/IA	15862	3 WAY SOLENOID VALVE FOR FCV-1369	FW-AFW	19	0993	03WC7N3A	AI-41B-14	S
FCV-1369	FCV-1369-O	7	A	AUX/IA	15862	CONTROL VALVE OPERATOR FOR FCV-1369	FW-AFW	19	0991	03WC07N3A	NA	S
FCV-269	FCV-269	7	P	RC	55250	BLEEDING TEE CH-13; B.A.S.T. INLET VALVE	CH	26	1011	51W/T-8N'6E	NA	SR
FCV-269Y	FCV-269Y	7	P	RC	55250	BLENDING TEE; BORIC ACID INLET VALVE	CH	26	1010	42W/T-10N'6E	NA	N
FE-1368	FE-1368	18	A	DHR	15861	FLOW ELEMENT FOR FT-1368	FW-AFW	19	0996	3WC0N4A	NA	S
FE-1369	FE-1369	18	A	DHR	15861	FLOW ELEMENT FOR FT-1369	FW-AFW	19	0996	3WC14N3A	NA	S
CB-10,11	FIC-1368	20	A	DHR	15861	FLOW/INDICATING CONTROLLER FOR FT-1368	FW-AFW	77	1036	CB-10,11	AI-42A-05	S
AI-66B	FIC-1369	20	A	DHR	15861	FLOW/INDICATING CONTROLLER FOR FCV-1369	FW-AFW	77	1036	AI-66B	AI-42B-08	S
AI-12	FM-1368-1	20	A	DHR	15861	FW-6 SUCTION FLOW SIGNAL CONVERTER	FW-AFW	77	1036	AI-12	FQ-1368-1	S
AI-12	FM-1368-2	20	A	DHR	15861	FW-6 SUCTION FLOW SQUARE ROOT EXTRACTOR MODUL	FW-AFW	77	1036	AI-12	FQ-1368-1	S
AI-12	FM-1368-3	20	A	DHR	15861	FW-6 SUCTION FLOW OUTPUT SIGNAL CONVERTER	FW-AFW	77	1036	AI-12	FQ-1368-1	S
AI-12	FM-1369-1	20	A	DHR	15861	FW-10 SUCTION FLOW SIGNAL CONVERTER	FW-AFW	77	1036	AI-12	FQ-1369-1	S
AI-12	FM-1369-2	20	A	DHR	15861	FW-10 SUCTION FLOW SQUARE ROOT EXTRACTOR MODU	FW-AFW	77	1036	AI-12	FQ-1369-1	S
AI-12	FM-1369-3	20	A	DHR	15861	FW-10 SUCTION FLOW OUTPUT SIGNAL CONVERTER	FW-AFW	77	1036	AI-12	FQ-1369-1	S
FO-1	FO-1	21	P	AUX/EDG	16303	EDG FUEL OIL STORAGE TANK	FO-DG	OTDR	0995	29EM-30S1A	NA	S
DG-1	FO-17-1	5	A	AUX/EDG	16303	DG-1 FUEL PUMP	FO-DG	63	1010	0WK6N1A	NA	S
DG-1	FO-17-1-M	5	A	AUX/EDG	17413	DG-1 FUEL PUMP MOTOR	FO-DG	63	1010	0WK6N1A	DP1	S
DG-2	FO-17-2	5	A	AUX/EDG	16303	DG-2 FUEL PUMP	FO-DG	64	1010	20WF-22N1A	NA	S
DG-2	FO-17-2-M	5	A	AUX/EDG	17413	DG-2 FUEL PUMP MOTOR	FO-DG	64	1010	20WF-22N1A	DP2	S
DG-1	FO-18-1	5	A	AUX/EDG	16303	DG-1 FUEL PUMP	FO-DG	63	1010	19WF8N1A	NA	S
DG-2	FO-18-2	5	A	AUX/EDG	16303	DG-2 FUEL PUMP	FO-DG	64	1010	20WF25N1A	NA	S
FO-2-1	FO-2-1	21	P	AUX/EDG	16303	DG-1 WALL MOUNTED FUEL TANK	FO-DG	63	1017	07EK-14N1A	NA	S
FO-2-2	FO-2-2	21	P	AUX/EDG	16303	DG-2 WALL MOUNTED FUEL TANK	FO-DG	64	1017	07EK-01S2B	NA	S
DG-1	FO-2C	21	P	AUX/EDG	16303	DG-1 ENGINE MOUNTED FUEL TANK	FO-DG	63	1007	0WK8NF	NA	S
DG-2	FO-2D	21	P	AUX/EDG	16303	DG-2 ENGINE MOUNTED FUEL TANK	FO-DG	64	1007	0WK22N1A	NA	S
DG-1	FO-4A-1	5	A	AUX/EDG	16303	DG-1 FUEL OIL TRANSFER PUMP	FO-DG	63	1012	03WK-09N1A	NA	S
DG-1	FO-4A-1-M	5	A	AUX/EDG	17408	DG-1 FUEL OIL TRANSFER PUMP MOTOR	FO-DG	63	1012	03WK-09N1A	D1-69-8FT1	SR
DG-2	FO-4A-2	5	A	AUX/EDG	16303	DG-2 FUEL OIL TRANSFER PUMP	FO-DG	64	1012	03WK-06S2B	NA	S
DG-2	FO-4A-2-M	5	A	AUX/EDG	17408	DG-2 FUEL OIL TRANSFER PUMP MOTOR	FO-DG	64	1012	03WK-06S2B	D2-69-8FT2	SR
DG-1	FO-4B-1	5	A	AUX/EDG	16303	DG-1 FUEL OIL TRANSFER PUMP	FO-DG	63	1012	03WK-07N1A	NA	S
DG-1	FO-4B-1-M	5	A	AUX/EDG	17408	DG-1 FUEL OIL TRANSFER PUMP MOTOR	FO-DG	63	1012	03WK-07N1A	D1-70-8FT1	SR
DG-2	FO-4B-2	5	A	AUX/EDG	16303	DG-2 FUEL OIL TRANSFER PUMP	FO-DG	64	1012	03WK-08S2B	NA	S
DG-2	FO-4B-2-M	5	A	AUX/EDG	17408	DG-2 FUEL OIL TRASNFER PUMP MOTOR	FO-DG	64	1012	03WK-08S2B	D2-70-8FT2	SR
GE/MAC	FQ-1368	20	A	DHR	15861	INSTRUMENT MODULE FOR FT-1368	FW-AFW	77	1036	GE/MAC	NA	S
AI-12	FQ-1368-1	20	A	DHR	15861	FW-6 SUCTION FLOW POWER SUPPLY	FW-AFW	77	1036	AI-12	AI-42A-5	S
GE/MAC	FQ-1369	20	A	DHR	15861	INSTRUMENT MODULE FOR FT-1369	FW-AFW	77	1036	GE/MAC	NA	S
AI-12	FQ-1369-1	20	A	DHR	15861	FW-10 SUCTION FLOW POWER SUPPLY	FW-AFW	77	1036	AI-12	AI-42B-7	S
FT-1368	FT-1368	18	A	DHR	15861	FLOW TRANSMITTER FOR FCV-1368	FW-AFW	19	0993	01WC04S4A	FQ-1368	S
FT-1369	FT-1369	18	A	DHR	15861	FLOW TRANSMITTER FOR FCV-1369	FW-AFW	19	0993	01WC05S4A	FQ-1369	S
FW-10	FW-10	5	A	DHR	56510	TURBINE DRIVEN AFW PUMP	FW-AFW	19	0991	03WC-1N3A	NA	S
FW-10	FW-10-M	5	A	DHR	56510	AFW PUMP FW-10 TURBINE	FW-AFW	19	0991	03WC-1N3A	NA	S
FW-19	FW-19	21	P	DHR	55540	EFWST	FW-AFW	81	1045	12WC3N3A	NA	S
FW-6	FW-6	5	A	DHR	56510	MOTOR OPERATED AFW PUMP	FW-AFW	19	0992	04WC-5S4A	NA	S
FW-654	FW-654	0	P	DHR	55540	DEMIN WATER MAKEUP BYPASS ISOLATION	FW-AFW	81	1041	10ED5S4A	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
FW-6	FW-6-M	5	A	DHR	56510	FW-6 MOTOR	FW-AFW	19	0992	04WC-15N3A	1A3-16	S
HCV-1041A	HCV-1041A	7	A	DHR	10458	RC-2A ISOLATION VALVE	MS	81	1040	10WD-3N4A	NA	SR
HCV-1041A	HCV-1041A-20A	0	A	AUX/IA	15772	3 WAY SOLENOID VALVE FOR HCV-1041A	MS	81	1046	7WD3N4A	AI-41B-12	S
HCV-1041A	HCV-1041A-20B	0	A	AUX/IA	15772	3 WAY SOLENOID VALVE FOR HCV-1041A	MS	81	1047	7WD3N4A	AI-41B-12	S
HCV-1041A	HCV-1041A-20C	0	A	AUX/IA	15772	3 WAY SOLENOID VALVE FOR HCV-1041A	MS	81	1046	07EE02N4A	AI-41B-12	S
HCV-1041A	HCV-1041A-O	7	A	AUX/IA	15772	CONTROL VALVE OPERATOR FOR HCV-1041A	MS	81	1040	10WD-4N4A	NA	S
HCV-1041B	HCV-1041B	7	A	DHR	10458	MSIV CHECK	MS	81	1040	10WD7N4A	NA	S
HCV-1041C	HCV-1041C	7	P	DHR	10458	RC-2A BYPASS ISOLATION VALVE	MS	81	1042	12WD06N4A	NA	SR
HCV-1042A	HCV-1042A	7	A	DHR	10458	RC-2B ISOLATION VALVE	MS	81	1040	15WD19N4A	NA	SR
HCV-1042A	HCV-1042A-20A	0	A	AUX/IA	15772	3 WAY SOLENOID VALVE FOR HCV-1042A	MS	81	1046	0EG12S5B	AI-41B-12	S
HCV-1042A	HCV-1042A-20B	0	A	AUX/IA	15772	3 WAY SOLENOID VALVE FOR HCV-1042A	MS	81	1046	0EG12S5B	AI-41B-12	S
HCV-1042A	HCV-1042A-20C	0	A	AUX/IA	15772	3 WAY SOLENOID VALVE FOR HCV-1042A	MS	81	1046	02EG10S5B	AI-41B-12	S
HCV-1042A	HCV-1042A-O	7	A	AUX/IA	15772	CONTROL VALVE OPERATOR FOR HCV-1042A	MS	81	1040	15WD-10S5B	NA	S
HCV-1042B	HCV-1042B	7	A	DHR	10458	MSIV CHECK	MS	81	1040	15WD19N4A	NA	S
HCV-1042C	HCV-1042C	7	P	DHR	10458	RC-2B BYPASS ISOLATION VALVE	MS	81	1042	10EG-20N4A	NA	SR
HCV-1107A	HCV-1107A	7	A	DHR	56510	RC-2A AFW INLET VALVE	FW-AFW	CONT	1050	15WBB09NII	NA	SR
HCV-1107A	HCV-1107A-20	0	A	AUX/IA	15793	3 WAY SOLENOID VALVE FOR HCV-1107A	FW-AFW	CONT	1050	15WBB09NII	AI-41A-02	S
HCV-1107A	HCV-1107A-O	7	A	AUX/IA	15793	CONTROL VALVE OPERATOR FOR HCV-1107A	FW-AFW	CONT	1050	15WBB09NII	NA	S
HCV-1107B	HCV-1107B	7	A	DHR	56510	RC-2A AFW INLET VALVE	FW-AFW	81	1038	00WH-4N3A	NA	SR
HCV-1107B	HCV-1107B-20A	0	A	AUX/IA	15793	3 WAY SOLENOID VALVE FOR HCV-1107B	FW-AFW	81	1041	00WH04N3A	AI-41B-04	S
HCV-1107B	HCV-1107B-20B	0	A	AUX/IA	15793	3 WAY SOLENOID VALVE FOR HCV-1107B	FW-AFW	81	1038	00WH04N3A	AI-41B-04	S
HCV-1107B	HCV-1107B-20C	0	A	DHR	15793	RC-2A AFW INLET VALVE SOLENOID	FW-AFW	81	1042	3E'H-5N'3A	NA	S
HCV-1107B	HCV-1107B-O	7	A	AUX/IA	15793	CONTROL VALVE OPERATOR FOR HCV-1107B	FW-AFW	81	1038	00WH-4N3A	NA	S
HCV-1108A	HCV-1108A	7	A	DHR	56510	RC-2B AFW INLET VALVE	FW-AFW	CONT	1050	14WBB-31NIII	NA	SR
HCV-1108A	HCV-1108A-20	0	A	AUX/IA	15794	3 WAY SOLENOID VALVE FOR HCV-1108A	FW-AFW	CONT	1048	14WBB-31NIII	AI-41A-02	S
HCV-1108A	HCV-1108A-O	7	A	AUX/IA	15794	CONTROL VALVE OPERATOR FOR HCV-1108A	FW-AFW	CONT	1050	14WBB-31NIII	NA	S
HCV-1108B	HCV-1108B	7	A	DHR	56510	RC-2B AFW INLET VALVE	FW-AFW	81	1038	02EJ-0N5B	NA	SR
HCV-1108B	HCV-1108B-20A	0	A	AUX/IA	15794	3 WAY SOLENOID VALVE FOR HCV-1108B	FW-AFW	81	1041	02EJ00N5B	AI-41B-04	S
HCV-1108B	HCV-1108B-20B	0	A	AUX/IA	15794	3 WAY SOLENOID VALVE FOR HCV-1108B	FW-AFW	81	1042	01EJ00N5B	AI-41B-04	S
HCV-1108B	HCV-1108B-20C	0	A	DHR	15794	RC-2B AFW INLET VALVE SOLENOID	FW-AFW	81	1039	3E'J-1S'5B	NA	S
HCV-1108B	HCV-1108B-O	7	A	AUX/IA	15794	CONTROL VALVE OPERATOR FOR HCV-1108B	FW-AFW	81	1038	02EJ-0N5B	NA	S
HCV-1384	HCV-1384	7	P	DHR	56510	FW-AFW CROSS CONNECT VALVE	FW-AFW	81	1039	22ED-21N5B	NA	SR
HCV-1385	HCV-1385	7	A	DHR	10459	RC-2B FEEDWATER INLET VALVE	FW	81	1038	20WD20N4A	NA	SR
HCV-1385	HCV-1385-M	0	A	DHR	15869	CONTROL VALVE OPERATOR MOTOR FOR HCV-1185	FW	81	1043	20WD17N4A	MCC-3A1-E04	S
HCV-1385	HCV-1385-O	0	A	DHR	15869	CONTROL VALVE OPERATOR FOR HCV-1385	FW	81	1043	20WD20N4A	NA	S
HCV-1386	HCV-1386	7	A	DHR	10459	RC-2A FEEDWATER INLET VALVE	FW	81	1038	9EG-15S4A	NA	SR
HCV-1386	HCV-1386-M	0	A	DHR	15869	CONTROL VALVE OPERATOR MOTOR FOR HCV-1386	FW	81	1043	9EG-15S4A	MCC-4C1-E04	S
HCV-1386	HCV-1386-O	0	A	DHR	15869	CONTROL VALVE OPERATOR FOR HCV-1386	FW	81	1043	9EG-15S4A	NA	S
HCV-1387A	HCV-1387A	7	A	DHR	10459	RC-2B BLOW DOWN ISOLATION VALVE	FW-BD	CONT	998	13WBB07NIV	NA	SR
HCV-1387A	HCV-1387A-20	0	A	DHR	22745	RC-2B BLOW DOWN ISOLATION VALVE SOLENOID	FW-BD	CONT	1002	13W'BB-7N'IV	AI-41A-14	S
HCV-1387A	HCV-1387A-O	7	A	DHR	22745	RC-2B BLOW DOWN ISOLATION VALVE OPERATOR	FW-BD	CONT	1000	13W'BB-7N'IV	NA	S
HCV-1387B	HCV-1387B	7	A	DHR	10459	RC-2B BLOW DOWN ISOLATION VALVE	FW-BD	13	992	4WN2N6B	NA	SR
HCV-1387B	HCV-1387B-20	0	A	DHR	22745	RC-2B BLOW DOWN ISOLATION VALVE SOLENOID	FW-BD	13	995	4W'N-2N'6B	AI-41B-14	S
HCV-1387B	HCV-1387B-O	7	A	DHR	22745	RC-2B BLOW DOWN ISOLATION VALVE OPERATOR	FW-BD	13	992	4W'N-2N'6B	NA	S
HCV-1388A	HCV-1388A	7	A	DHR	10459	RC-2A BLOW DOWN ISOLATION VALVE	FW-BD	CONT	998	24WAA0NIV	NA	SR

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
HCV-1388A	HCV-1388A-20	0	A	DHR	22745	RC-2A BLOW DOWN ISOLATION VALVE SOLENOID	FW-BD	CONT	999	24W'AA-0N'IV	AI-41A-14	S
HCV-1388A	HCV-1388A-O	7	A	DHR	22745	RC-2A BLOW DOWN ISOLATION VALVE OPERATOR	FW-BD	CONT	999	24W'AA-0N'IV	NA	S
HCV-1388B	HCV-1388B	7	A	DHR	10459	RC-2A BLOW DOWN ISOLATION VALVE	FW-BD	13	991	08EN01S6B	NA	SR
HCV-1388B	HCV-1388B-20	0	A	DHR	22745	RC-2A BLOW DOWN ISOLATION VALVE SOLENOID	FW-BD	13	995	8E'N-1S'6B	AI-41B-14	S
HCV-1388B	HCV-1388B-O	7	A	DHR	22745	RC-2A BLOW DOWN ISOLATION VALVE OPERATOR	FW-BD	13	994	8E'N-1S'6B	NA	S
HCV-150	HCV-150	7	A	PC	42107	PORV BLOCKING VALVE	RC	CONT	1047	04WDD10NII	NA	SR
HCV-150	HCV-150-M	0	A	PC	15286	CONTROL VALVE OPERATOR MOTOR FOR HCV-150	RC	CONT	1047	04WDD10NII	MCC-3B1-H02	S
HCV-150	HCV-150-O	0	A	PC	15286	CONTROL VALVE OPERATOR FOR HCV-150	RC	CONT	1047	04WDD10NII	NA	S
HCV-151	HCV-151	7	A	PC	42107	PORV BLOCKING VALVE	RC	CONT	1047	21WCC08NII	NA	SR
HCV-151	HCV-151-M	0	A	PC	15287	CONTROL VALVE OPERATOR MOTOR FOR HCV-151	RC	CONT	1047	21WCC08NII	MCC-4A1-C05	S
HCV-151	HCV-151-O	0	A	PC	15287	CONTROL VALVE OPERATOR HCV-151	RC	CONT	1047	21WCC08NII	NA	S
HCV-176	HCV-176	7	P	INV	20663	REACTOR HEAD VENT VALVE	RC	CONT	1043	6W'BB-30N'II	NA	N
HCV-177	HCV-177	7	P	INV	20663	REACTOR HEAD VENT VALVE	RC	CONT	1043	6W'BB-30N'II	NA	N
HCV-178	HCV-178	7	P	INV	20663	PRESSURIZER RC-4 VENT STOP VALVE	RC	CONT	1054	16W'CC-6N'II	NA	N
HCV-179	HCV-179	7	P	INV	20663	HCV-178 TO RCGVS; BYPASS VALVE	RC	CONT	1052	16W'CC-6N'II	NA	N
HCV-238	HCV-238	7	P	INV,R,P	55158	LOOP CHARGING VALVE	CH	CONT	999	06WBB25NII	NA	SR
HCV-239	HCV-239	7	P	INV,R,P	55158	LOOP CHARGING VALVE	CH	CONT	1000	24WCC-24NIII	NA	SR
HCV-240	HCV-240	7	A	PC,R,P	55158	CVCS TO SPRAY LINE ISOLATION VALVE	CH	CONT	1045	14WDD06NII	NA	SR
HCV-240	HCV-240-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-240	CH	CONT	1051	18WDD15NII	NA	S
HCV-240	HCV-240-O	7	A	PC,R,P	49211	CVCS TO SPRAY LINE ISOLATION VALVE OPERATOR	CH	CONT	1045	14W'DD-6N'II	NA	S
HCV-247	HCV-247	7	P	INV,R,P	55158	LOOP CHARGING SOLENOID CONTROL VALVE	CH	CONT	1002	07WBB26NII	NA	SR
HCV-248	HCV-248	7	P	INV,R,P	55158	LOOP CHARGING SOLENOID CONTROL VALVE	CH	CONT	1000	16WCC09NII	NA	SR
HCV-249	HCV-249	7	A	PC,R,P	55158	CVCS TO SPRAY LINE ISOLATION VALVE	CH	CONT	1045	18WDD12NII	NA	SR
HCV-2504A	HCV-2504A	7	P	INV	10442	RC SAMPLE LINE CONTAINMENT ISOL VALVE	SL-PRI	CONT	1018	6W'EE-0N'IV	NA	SR
HCV-2506A	HCV-2506A	7	P	INV	10442	SG RC-2A SAMPLE CONTAINMENT ISOL VALVE	SL-PRI	CONT	1016	16WBB-17NII	NA	SR
HCV-2507A	HCV-2507A	7	P	INV	10442	SG RC-2B SAMPLE CONTAINMENT ISOL VALVE	SL-PRI	CONT	1018	27WBB-35NIII	NA	SR
HCV-257	HCV-257	7	P	RC	10478	B.A.S.T. CH-11B; RECIRC VALVE	CH	26	1014	12W'T-8N'6E	NA	SR
HCV-258	HCV-258	7	A	INV,R,P	10478	BAST OUTLET ISOLATION VALVE	CH	26	1010	12WT6N6E	NA	SR
HCV-264	HCV-264	7	P	RC	10478	B.A.S.T. CH-11A; RECIRC VALVE	CH	26	1011	30E'U-9N'6E	NA	SR
HCV-265	HCV-265	7	A	INV,R,P	10478	BAST OUTLET ISOLATION VALVE	CH	26	1010	30EU7N6E	NA	SR
HCV-268	HCV-268	7	P	RC	55250	BORIC ACID PUMP TO CHARGING; ISOL VALVE	CH	26	1016	16E'U-9N'6E	NA	N
HCV-2805A	HCV-2805A	7	A	AUX/RW	10454	R.W. AC-12A; BACKWASH CONTROL VALVE	AC-RW	INTK	0997	7W'BB-4N'102	NA	SR
HCV-2805A	HCV-2805A-20	8B	A	AUX/RW	43125	R.W. AC-12A; BACKWASH CONTROL VALVE SOLENOID	AC-RW	INTK	0997	7W'BB-3N'102	MCC-3B3-A04	S
HCV-2805B	HCV-2805B	7	A	AUX/RW	10454	R.W. AC-12B; BACKWASH CONTROL VALVE	AC-RW	INTK	0995	3E'CC-5S'105	NA	SR
HCV-2805B	HCV-2805B-20	8B	A	AUX/RW	43125	R.W. AC-12B; BACKWASH CONTROL VALVE SOLENOID	AC-RW	INTK	0995	16WBB-18N104	MCC-4C4-D07	S
HCV-2808C	HCV-2808C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	21	0975	7E'U-9N'6E	NA	N
HCV-2809C	HCV-2809C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	22	0975	4E'T-13N'6E	NA	N
HCV-2810C	HCV-2810C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	21	0975	4E'U-12N'6E	NA	N
HCV-2811C	HCV-2811C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	22	0975	5E'T-3S'8A	NA	N
HCV-2812C	HCV-2812C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	21	0975	50W'T-26N'6E	NA	N
HCV-2813C	HCV-2813C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	21	0975	8E'U-1S'6E	NA	N
HCV-2814C	HCV-2814C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	22	0975	4E'T-12S'6E	NA	N
HCV-2815C	HCV-2815C	7	P	AUX/CCW	55197	RAW WATER CROSSTIE; INLET VALVE	AC-RW	22	0972	4E'T-5N'6E	NA	N
HCV-2850	HCV-2850	7	A	AUX/RW	10454	AC-10A OUTLET VALVE	AC-RW	INTK	1000	6ECC6S103	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
HCV-2850	HCV-2850-20	0	A	AUX/IA	49211	3 WAY SOLENOID FOR HCV-2850	AC-RW	INTK	1000	6ECC6S103	AI-41A-12	S
HCV-2850	HCV-2850-O	7	A	AUX/IA	16035	CONTROL VALVE OPERATOR FOR HCV-2850	AC-RW	INTK	1000	6ECC6S103	NA	S
HCV-2851	HCV-2851	7	A	AUX/RW	10454	AC-10B OUTLET VALVE	AC-RW	INTK	1000	6ECC6N103	NA	S
HCV-2851	HCV-2851-20	0	A	AUX/RW	43223	AC-10B OUTLET VALVE SOLENOID	AC-RW	INTK	1000	6E'CC-6N'103	AI-41B-12	S
HCV-2851	HCV-2851-O	7	A	AUX/RW	43223	AC-10B OUTLET VALVE OPERATOR	AC-RW	INTK	1000	6E'CC-6N'103	NA	S
HCV-2852	HCV-2852	7	A	AUX/RW	10454	AC-10C OUTLET VALVE	AC-RW	INTK	1000	6ECC6S104	NA	S
HCV-2852	HCV-2852-20	0	A	AUX/RW	43223	AC-10C OUTLET VALVE SOLENOID	AC-RW	INTK	1000	6E'CC-6S'104	AI-41A-12	S
HCV-2852	HCV-2852-O	7	A	AUX/RW	43223	AC-10C OUTLET VALVE OPERATOR	AC-RW	INTK	1000	6E'CC-6S'104	NA	S
HCV-2853	HCV-2853	7	A	AUX/RW	10454	AC-10D OUTLET VALVE	AC-RW	INTK	1000	6ECC6N104	NA	S
HCV-2853	HCV-2853-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-2853	AC-RW	INTK	1000	6ECC6N104	AI-41B-12	S
HCV-2853	HCV-2853-O	7	A	AUX/IA	16041	CONTROL VALVE OPERATOR FOR HCV-2853	AC-RW	INTK	1000	6ECC6N104	NA	S
HCV-2859	HCV-2859	7	P	AUX/CCW	10456	CEDM SEAL COOLING FLOW CONTROL VALVE	AC-CCW	CONT	1016	15WAA6NIII	NA	S
HCV-2861	HCV-2861	7	P	AUX/RW	10454	R.W. SUPPLY TO WATERPLANT; ISOL VALVE	AC-RW	109	1007	1W'SA-24N'7	NA	SR
HCV-2874A	HCV-2874A	7	A	AUX/RW	10454	R.W. PUMPS DISCH HEADER ISOL VALVE	AC-RW	INTK	1001	6E'CC-4S'103	NA	SR
HCV-2874A	HCV-2874A-20	0	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE SOLENOID	AC-RW	INTK	1001	6E'CC-4S'103	AI-41A-12	S
HCV-2874A	HCV-2874A-O	7	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE OPERATOR	AC-RW	INTK	1001	6E'CC-4S'103	NA	S
HCV-2874B	HCV-2874B	7	A	AUX/RW	10454	R.W. PUMPS DISCH HEADER ISOL VALVE	AC-RW	INTK	1002	6E'CC-4N'103	NA	SR
HCV-2874B	HCV-2874B-20	0	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE SOLENOID	AC-RW	INTK	1001	6E'CC-4N'103	AI-41B-12	S
HCV-2874B	HCV-2874B-O	7	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE OPERATOR	AC-RW	INTK	1001	6E'CC-4N'103	NA	S
HCV-2875A	HCV-2875A	7	A	AUX/RW	10454	R.W. PUMPS DISCH HEADER ISOL VALVE	AC-RW	INTK	1001	6E'CC-7N'103	NA	SR
HCV-2875A	HCV-2875A-20	0	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE SOLENOID	AC-RW	INTK	1001	6E'CC-7N'103	AI-41A-12	S
HCV-2875A	HCV-2875A-O	7	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE OPERATOR	AC-RW	INTK	1001	6E'CC-7N'103	NA	S
HCV-2875B	HCV-2875B	7	A	AUX/RW	10454	R.W. PUMPS DISCH HEADER ISOL VALVE	AC-RW	INTK	1001	6E'CC-8S'104	NA	SR
HCV-2875B	HCV-2875B-20	0	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE SOLENOID	AC-RW	INTK	1001	6E'CC-8S'104	AI-41B-12	S
HCV-2875B	HCV-2875B-O	7	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE OPERATOR	AC-RW	INTK	1001	6E'CC-8S'104	NA	S
HCV-2876A	HCV-2876A	7	A	AUX/RW	10454	R.W. PUMPS DISCH HEADER ISOL VALVE	AC-RW	INTK	1001	6E'CC-4S'104	NA	SR
HCV-2876A	HCV-2876A-20	0	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE SOLENOID	AC-RW	INTK	1001	6E'CC-4S'104	AI-41A-12	S
HCV-2876A	HCV-2876A-O	7	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE OPERATOR	AC-RW	INTK	1001	6E'CC-4S'104	NA	S
HCV-2876B	HCV-2876B	7	A	AUX/RW	10454	R.W. PUMPS DISCH HEADER ISOL VALVE	AC-RW	INTK	1001	12WBB-4N104	NA	SR
HCV-2876B	HCV-2876B-20	0	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE SOLENOID	AC-RW	INTK	1001	6E'CC-4N'104	AI-41B-12	S
HCV-2876B	HCV-2876B-O	7	A	AUX/RW	12597	R.W. PUMPS DISCH HEADER ISOL VALVE OPERATOR	AC-RW	INTK	1001	6E'CC-4N'104	NA	S
HCV-2877A	HCV-2877A	7	A	AUX/RW	10454	RW HEADER CROSS CONNECT VALVE	AC-RW	18	993	13ED12S6D	NA	SR
HCV-2877A	HCV-2877A-20	0	A	AUX/IA	16057	3 WAY SOLENOID VALVE FOR HCV-2877A	AC-RW	18	0993	13ED12S6D	AI-41A-12	S
HCV-2877A	HCV-2877A-O	7	A	AUX/IA	16057	CONTROL VALVE OPERATOR FOR HCV-2877A	AC-RW	18	0993	13ED12S6D	NA	S
HCV-2877B	HCV-2877B	7	A	AUX/RW	10454	RW HEADER CROSS CONNECT VALVE	AC-RW	18	993	13ED08S6D	NA	SR
HCV-2877B	HCV-2877B-20	0	A	AUX/IA	16057	3 WAY SOLENOID VALVE FOR HCV-2877B	AC-RW	18	0993	13ED08S6D	AI-41A-12	S
HCV-2877B	HCV-2877B-O	7	A	AUX/IA	16057	CONTROL VALVE OPERATOR FOR HCV-2877B	AC-RW	18	0993	13ED08S6D	NA	S
HCV-2878A	HCV-2878A	7	A	AUX/RW	10454	RW HEADER CROSS CONNECT VALVE	AC-RW	18	993	13ED04S6D	NA	SR
HCV-2878A	HCV-2878A-20	0	A	AUX/IA	16058	3 WAY SOLENOID VALVE FOR HCV-2878A	AC-RW	18	0993	13ED04S6D	AI-41B-12	S
HCV-2878A	HCV-2878A-O	7	A	AUX/IA	16058	CONTROL VALVE OPERATOR FOR HCV-2878A	AC-RW	18	0993	13ED04S6D	NA	S
HCV-2878B	HCV-2878B	7	A	AUX/RW	10454	RW HEADER CROSS CONNECT VALVE	AC-RW	18	993	13ED03S6D	NA	SR
HCV-2878B	HCV-2878B-20	0	A	AUX/IA	16058	3 WAY SOLENOID VALVE FOR HCV-2878B	AC-RW	18	0993	13ED03S6D	AI-41B-12	S
HCV-2878B	HCV-2878B-O	7	A	AUX/IA	16058	CONTROL VALVE OPERATOR FOR HCV-2878B	AC-RW	18	0993	13ED03S6D	NA	S
HCV-2879A	HCV-2879A	7	A	AUX/RW	10454	RW HEADER CROSS CONNECT VALVE	AC-RW	18	993	13ED04N6D	NA	SR
HCV-2879A	HCV-2879A-20	0	A	AUX/IA	16059	3 WAY SOLENOID VALVE FOR HCV-2879A	AC-RW	18	0993	13ED04N6D	AI-41A-12	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	ELEV	ELOCATION	EPOWER	EVALU
HCV-2879A	HCV-2879A-O	7	A	AUX/IA	16059	CONTROL VALVE OPERATOR FOR HCV-2879A	AC-RW	18	0993	13ED04N6D	NA	S
HCV-2879B	HCV-2879B	7	A	AUX/RW	10454	RW HEADER CROSS CONNECT VALVE	AC-RW	18	993	13ED06N6D	NA	SR
HCV-2879B	HCV-2879B-20	0	A	AUX/IA	16059	3 WAY SOLENOID VALVE FOR HCV-2879B	AC-RW	18	0993	13ED06N6D	AI-41A-12	S
HCV-2879B	HCV-2879B-O	7	A	AUX/IA	16059	CONTROL VALVE OPERATOR FOR HCV-2879B	AC-RW	18	0993	13ED06N6D	NA	S
HCV-2880A	HCV-2880A	7	A	AUX/RW	10454	AC-1A RW INLET VALVE	AC-RW	18	994	13ED06S6D	NA	SR
HCV-2880A	HCV-2880A-20	0	A	AUX/IA	16060	3 WAY SOLENOID VALVE FOR HCV-2880A	AC-RW	18	0997	13ED06S6D	AI-41A-12	S
HCV-2880A	HCV-2880A-O	7	A	AUX/IA	16060	CONTROL VALVE OPERATOR FOR HCV-2880A	AC-RW	18	0994	13ED06S6D	NA	S
HCV-2880B	HCV-2880B	7	A	AUX/RW	10454	AC-1A RW OUTLET VALVE	AC-RW	4	991	07WD04N5B	NA	SR
HCV-2880B	HCV-2880B-20	0	A	AUX/IA	16060	3 WAY SOLENOID VALVE FOR HCV-2880B	AC-RW	4	0994	07WD04N5B	AI-41A-12	S
HCV-2880B	HCV-2880B-O	7	A	AUX/IA	16060	CONTROL VALVE OPERATOR FOR HCV-2880B	AC-RW	4	0991	07WD04N5B	NA	S
HCV-2881A	HCV-2881A	7	A	AUX/RW	10454	AC-1B RW INLET VALVE	AC-RW	18	994	13ED01N6D	NA	SR
HCV-2881A	HCV-2881A-20	0	A	AUX/IA	16061	3 WAY SOLENOID VALVE FOR HCV-2881A	AC-RW	18	0997	13ED01N6D	AI-41B-12	S
HCV-2881A	HCV-2881A-O	7	A	AUX/IA	16060	CONTROL VALVE OPERATOR FOR HCV-2881A	AC-RW	18	0994	13ED01N6D	NA	S
HCV-2881B	HCV-2881B	7	A	AUX/RW	10454	AC-1B RW OUTLET VALVE	AC-RW	4	1003	07WD04N5B	NA	SR
HCV-2881B	HCV-2881B-20	0	A	AUX/IA	16061	3 WAY SOLENOID VALVE FOR HCV-2881B	AC-RW	4	0999	07WD04N5B	AI-41B-12	S
HCV-2881B	HCV-2881B-O	7	A	AUX/IA	16061	CONTROL VALVE OPERATOR FOR HCV-2881B	AC-RW	4	1003	07WD04N5B	NA	S
HCV-2882A	HCV-2882A	7	A	AUX/RW	10454	AC-1C RW INLET VALVE	AC-RW	18	994	08ED09N4A	NA	SR
HCV-2882A	HCV-2882A-20	0	A	AUX/IA	16062	3 WAY SOLENOID VALVE FOR HCV-2882A	AC-RW	18	0994	08ED09N4A	AI-41A-12	S
HCV-2882A	HCV-2882A-O	7	A	AUX/IA	16062	CONTROL VALVE OPERATOR FOR HCV-2882A	AC-RW	18	0994	08ED09N4A	NA	S
HCV-2882B	HCV-2882B	7	A	AUX/RW	10454	AC-1C RW OUTLET VALVE	AC-RW	18	999	04ED09N5B	NA	SR
HCV-2882B	HCV-2882B-20	0	A	AUX/IA	16062	3 WAY SOLENOID VALVE FOR HCV-2882B	AC-RW	18	0999	04ED09N5B	AI-41A-12	S
HCV-2882B	HCV-2882B-O	7	A	AUX/IA	16062	CONTROL VALVE OPERATOR FOR HCV-2882B	AC-RW	18	0999	04ED09N5B	NA	S
HCV-2883A	HCV-2883A	7	A	AUX/RW	10454	AC-1D RW INLET VALVE	AC-RW	18	994	08ED07S7A	NA	SR
HCV-2883A	HCV-2883A-20	0	A	AUX/IA	16063	3 WAY SOLENOID VALVE FOR HCV-2883A	AC-RW	18	0994	08ED07S7A	AI-41B-12	S
HCV-2883A	HCV-2883A-O	7	A	AUX/IA	16063	CONTROL VALVE OPERATOR FOR HCV-2883A	AC-RW	18	0994	08ED07S7A	NA	S
HCV-2883B	HCV-2883B	7	A	AUX/RW	10454	AC-1D RW OUTLET VALVE	AC-RW	18	999	04ED16S6D	NA	SR
HCV-2883B	HCV-2883B-20	0	A	AUX/IA	16063	3 WAY SOLENOID VALVE FOR HCV-2883B	AC-RW	18	0999	04ED16S6D	AI-41B-12	S
HCV-2883B	HCV-2883B-O	7	A	AUX/IA	16063	CONTROL VALVE OPERATOR FOR HCV-2883B	AC-RW	18	0999	04ED16S6D	NA	S
HCV-2893	HCV-2893	7	P	AUX/RW	10454	RAW WATER TO CCW ISOLATION VALVE	AC-RW	18	993	13E'D-19S'6D	NA	N
HCV-2894	HCV-2894	7	P	AUX/RW	10454	RAW WATER TO CCW ISOLATION VALVE	AC-RW	18	993	13E'D-24S'6D	NA	N
HCV-2895A	HCV-2895A	7	P	AUX/CCW	55196	WASTE EVAPORATOR/PRIMARY SAMPLE COOLER CCW OUTLET VALVE	AC-CCW	30	1013	14W'T-9S'8A	NA	N
HCV-2895B	HCV-2895B	7	P	AUX/CCW	55196	WASTE EVAPORATOR/PRIMARY SAMPLE COOLER CCW INLET VALVE	AC-CCW	30	1014	15W'T-9S'8A	NA	N
HCV-2898A	HCV-2898A	7	A	AUX/CCW	10440	CONTROL ROOM HVAC ISOLATION	AC-CCW	81	1037	7W'J14N'6	NA	SR
HCV-2898A	HCV-2898A-20	0	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION SOLENOID	AC-CCW	81	1039	7W'J-14N'6	AI-41A-12	S
HCV-2898A	HCV-2898A-O	7	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION OPERATOR	AC-CCW	81	1037	7W'J-14N'6	NA	S
HCV-2898B	HCV-2898B	7	A	AUX/CCW	10440	CONTROL ROOM HVAC ISOLATION	AC-CCW	81	1037	9W'J15N'6	NA	SR
HCV-2898B	HCV-2898B-20	0	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION SOLENOID	AC-CCW	81	1039	7W'J-15N'6	AI-41A-12	S
HCV-2898B	HCV-2898B-O	7	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION OPERATOR	AC-CCW	81	1037	9W'J-15N'6	NA	S
HCV-2898C	HCV-2898C	7	P	AUX/CCW	10440	CONTROL RM VA-46A; R.W. INLET VALVE	AC-RW	81	1039	4W'J-14N'6	NA	N
HCV-2898D	HCV-2898D	7	P	AUX/CCW	10440	CONTROL RM VA-46A; R.W. OUTLET VALVE	AC-RW	81	1039	4W'J-15N'6	NA	N
HCV-2899A	HCV-2899A	7	A	AUX/CCW	10440	CONTROL ROOM HVAC ISOLATION	AC-CCW	81	1037	6W'G14N'6	NA	SR
HCV-2899A	HCV-2899A-20	0	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION SOLENOID	AC-CCW	81	1040	6W'G-14N'6	AI-41B-12	S
HCV-2899A	HCV-2899A-O	7	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION OPERATOR	AC-CCW	81	1037	6W'G-14N'6	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
HCV-2899B	HCV-2899B	7	A	AUX/CCW	10440	CONTROL ROOM HVAC ISOLATION	AC-CCW	81	1037	6WG15N6	NA	SR
HCV-2899B	HCV-2899B-20	0	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION SOLENOID	AC-CCW	81	1037	6W'G-15N'6	AI-41B-12	S
HCV-2899B	HCV-2899B-O	7	A	AUX/CCW	41671	CONTROL ROOM HVAC ISOLATION OPERATOR	AC-CCW	81	1037	6W'G-15N'6	NA	S
HCV-2899C	HCV-2899C	7	P	AUX/CCW	10440	CONTROL RM VA-46B; R.W. INLET VALVE	AC-RW	81	1037	4W'G-14N'6	NA	N
HCV-2899D	HCV-2899D	7	P	AUX/CCW	10440	CONTROL RM VA-46B; R.W. OUTLET VALVE	AC-RW	81	1037	4W'G-15N'6	NA	N
HCV-2988	HCV-2988	7	P	RC	56027	HPSI ISOL VALVE HCV-308; BYPASS VALVE	SI-HP	13	0997	17W'P-5N'6C	NA	N
HCV-308	HCV-308	7	P	RC	56027	HPSI TO CHARGING HEADER CROSSTIE VALVE	SI-HP	13	0993	16W'P-5N'6C	NA	N
HCV-348	HCV-348	7	P	INV	41901	LOOP 2 TO SHUTDOWN COOLING; ISOL VALVE	SI-LP	CONT	1003	0WCC-20NIII	NA	N
HCV-400A	HCV-400A	7	A	AUX/CCW	35367	VA-1A HX INLET VALVE	AC-CCW	69	1027	08WN06N6B	NA	SR
HCV-400A	HCV-400A-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-400A	AC-CCW	69	1027	08WN06N6B	AI-41A-12	S
HCV-400A	HCV-400A-O	7	A	AUX/IA	16261	CONTROL VALVE OPERATOR FOR HCV-400A	AC-CCW	69	1027	08WN06N6B	NA	S
HCV-400B	HCV-400B	7	A	AUX/CCW	35367	VA-1A HX INLET VALVE	AC-CCW	69	1030	09EP08N6C	NA	SR
HCV-400B	HCV-400B-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-400B	AC-CCW	69	1030	09EP08N6C	AI-41B-12	S
HCV-400B	HCV-400B-O	7	A	AUX/IA	16261	CONTROL VALVE OPERATOR FOR HCV-400B	AC-CCW	69	1030	09EP08N6C	NA	S
HCV-400C	HCV-400C	7	A	AUX/CCW	35367	VA-1A HX OUTLET VALVE	AC-CCW	69	1027	08WP03N6C	NA	SR
HCV-400C	HCV-400C-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-400C	AC-CCW	69	1027	08WP03N6C	AI-41A-12	S
HCV-400C	HCV-400C-O	7	A	AUX/IA	16261	CONTROL VALVE OPERATOR FOR HCV-400C	AC-CCW	69	1027	08WP03N6C	NA	S
HCV-400D	HCV-400D	7	A	AUX/CCW	35367	VA-1A HX OUTLET VALVE	AC-CCW	69	1031	09WP10N6C	NA	SR
HCV-400D	HCV-400D-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-400D	AC-CCW	69	1031	09WP10N6C	AI-41B-12	S
HCV-400D	HCV-400D-O	7	A	AUX/IA	16261	CONTROL VALVE OPERATOR FOR HCV-400D	AC-CCW	69	1031	09WP10N6C	NA	S
HCV-400E	HCV-400E	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; INLET VALVE	AC-RW	69	1027	9E'P-13N'6C	NA	N
HCV-400F	HCV-400F	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; OUTLET VALVE	AC-RW	69	1027	11W'P-15N'6C	NA	N
HCV-401A	HCV-401A	7	A	AUX/CCW	35367	VA-1B HX INLET VALVE	AC-CCW	69	1027	07EP03N6C	NA	SR
HCV-401A	HCV-401A-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-401A	AC-CCW	69	1027	07EP03N6C	AI-41A-12	S
HCV-401A	HCV-401A-O	7	A	AUX/IA	15342	CONTROL VALVE OPERATOR FOR HCV-401A	AC-CCW	69	1027	07EP03N6C	NA	S
HCV-401B	HCV-401B	7	A	AUX/CCW	35367	VA-1B HX INLET VALVE	AC-CCW	69	1030	07EP08N6C	NA	SR
HCV-401B	HCV-401B-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-401B	AC-CCW	69	1030	07EP08N6C	AI-41B-12	S
HCV-401B	HCV-401B-O	7	A	AUX/IA	15342	CONTROL VALVE OPERATOR FOR HCV-401B	AC-CCW	69	1030	07EP08N6C	NA	S
HCV-401C	HCV-401C	7	A	AUX/CCW	35367	VA-1B HX OUTLET VALVE	AC-CCW	69	1027	10WP5N6C	NA	SR
HCV-401C	HCV-401C-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-401C	AC-CCW	69	1027	10WP5N6C	AI-41A-12	S
HCV-401C	HCV-401C-O	7	A	AUX/IA	15342	CONTROL VALVE OPERATOR FOR HCV-401C	AC-CCW	69	1027	10WP5N6C	NA	S
HCV-401D	HCV-401D	7	A	AUX/CCW	35367	VA-1B HX OUTLET VALVE	AC-CCW	69	1031	10WP12N6C	NA	SR
HCV-401D	HCV-401D-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR HCV-401D	AC-CCW	69	1031	10WP12N6C	AI-41B-12	S
HCV-401D	HCV-401D-O	7	A	AUX/IA	15342	CONTROL VALVE OPERATOR FOR HCV-401D	AC-CCW	69	1031	10WP12N6C	NA	S
HCV-401E	HCV-401E	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; INLET VALVE	AC-RW	69	1027	7E'P-13N'6C	NA	N
HCV-401F	HCV-401F	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; OUTLET VALVE	AC-RW	69	1027	10W'P-15N'6C	NA	N
HCV-402A	HCV-402A	7	A	AUX/CCW	35367	CNTMT VA-8A COOLING COIL - CCW INLET VALVE	AC-CCW	69	1027	03EP03N6C	NA	SR
HCV-402A	HCV-402A-20	0	A	AUX/IA	49211	CNTMT VA-8A COOLING COIL CCW INLET VALVE SOLE	AC-CCW	69	1027	03EP03N6C	AI-41A-12	S
HCV-402A	HCV-402A-O	7	A	AUX/IA	15345	INLET VA-8A ISOL VALVE	AC-CCW	69	1027	03EP03N6C	NA	S
HCV-402B	HCV-402B	7	A	AUX/CCW	35367	CNTMT VA-8A COOLING COIL - CCW INLET VALVE	AC-CCW	69	1030	03EP08N6C	NA	SR
HCV-402B	HCV-402B-20	0	A	AUX/IA	49211	CNTMT VA-8A COOLING COIL CCW INLET VALVE SOLE	AC-CCW	69	1030	03EP08N6C	AI-41B-12	S
HCV-402B	HCV-402B-O	7	A	AUX/IA	15345	INLET VA-8A ISOL VALVE	AC-CCW	69	1030	03EP08N6C	NA	S
HCV-402C	HCV-402C	7	A	AUX/CCW	35367	CNTMT VA-8A COOLING COIL - CCW OUTLET VALVE	AC-CCW	69	1027	06WP5N6C	NA	SR
HCV-402C	HCV-402C-20	0	A	AUX/IA	49211	CNTMT VA-8A COOLING COIL CCW OUTLET VALVE SOL	AC-CCW	69	1030	06WP05N6C	AI-41A-12	S
HCV-402C	HCV-402C-O	7	A	AUX/IA	15345	OUTLET VA-8A ISOL VALVE	AC-CCW	69	1027	06WP05N6C	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
HCV-402D	HCV-402D	7	A	AUX/CCW	35367	CNTMT VA-8A COOLING COIL - CCW OUTLET VALVE	AC-CCW	69	1031	05WP10N6C	NA	SR
HCV-402D	HCV-402D-20	0	A	AUX/IA	49211	CNTMT VA-8A COOLING COIL - CCW OUTLET VALVE S	AC-CCW	69	1031	05WP10N6C	AI-41B-12	S
HCV-402D	HCV-402D-O	7	A	AUX/IA	15345	OUTLET TO VA-8A	AC-CCW	69	1031	05WP10N6C	NA	S
HCV-402E	HCV-402E	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; INLET VALVE	AC-RW	69	1027	3E'P-13N'6C	NA	N
HCV-402F	HCV-402F	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; OUTLET VALVE	AC-RW	69	1027	4W'P-3S'7A	NA	N
HCV-403A	HCV-403A	7	A	AUX/CCW	35367	CNTMT VA-8B COOLING COIL - CCW INLET VALVE	AC-CCW	69	1027	0WP3N6C	NA	SR
HCV-403A	HCV-403A-20	0	A	AUX/IA	49211	CNTMT VA-8B COOLING COIL - CCW INLET VALVE SO	AC-CCW	69	1027	01EP03N6C	AI-41A-12	S
HCV-403A	HCV-403A-O	7	A	AUX/IA	15348	INLET VA-8B	AC-CCW	69	1027	0WP3N6C	NA	S
HCV-403B	HCV-403B	7	A	AUX/CCW	35367	CNTMT VA-8B COOLING COIL - CCW INLET VALVE	AC-CCW	69	1030	01EP08N6C	NA	SR
HCV-403B	HCV-403B-20	0	A	AUX/IA	49211	CNTMT VA-8B COOLING COIL CCW INLET VALVE SOLE	AC-CCW	69	1030	01EP08N6C	AI-41B-12	S
HCV-403B	HCV-403B-O	7	A	AUX/IA	15348	INLET VA-8B ISOL VALVE	AC-CCW	69	1030	01EP08N6C	NA	S
HCV-403C	HCV-403C	7	A	AUX/CCW	35367	CNTMT VA-8B COOLING COIL - CCW OUTLET VALVE	AC-CCW	69	1027	02WP03N6C	NA	SR
HCV-403C	HCV-403C-20	0	A	AUX/IA	49211	CNTMT VA-8B COOLING COIL CCW OUTLET VALVE SOL	AC-CCW	69	1028	02WP03N6C	AI-41A-12	S
HCV-403C	HCV-403C-O	7	A	AUX/IA	15348	OUTLET VA-8B ISOL VALVE	AC-CCW	69	1027	02WP03N6C	NA	S
HCV-403D	HCV-403D	7	A	AUX/CCW	35367	CNTMT VA-8B COOLING COIL - CCW OUTLET VALVE	AC-CCW	69	1031	01WP08S7A	NA	SR
HCV-403D	HCV-403D-20	0	A	AUX/IA	49211	CNTMT VA-8B COOLING COIL CCW OUTLET VALVE SOL	AC-CCW	69	1031	01WP08S7A	AI-41B-12	S
HCV-403D	HCV-403D-O	7	A	AUX/IA	15348	OUTLET FOR VA-8B	AC-CCW	69	1031	01WP08S7A	NA	S
HCV-403E	HCV-403E	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; INLET VALVE	AC-RW	69	1027	1E'P-13N'6C	NA	N
HCV-403F	HCV-403F	7	P	AUX/CCW	35367	RAW WATER CROSSTIE; OUTLET VALVE	AC-RW	69	1027	3W'P-5S'7A	NA	N
HCV-425B	HCV-425B	7	P	AUX/CCW	41741	SI TANK LEAKAGE COOLER CCW OUTLET VALVES	AC-CCW	59	1009	1W'P-1N'6C	NA	N
HCV-438A	HCV-438A	7	P	AUX/CCW	35368	RCP & CEDM SEAL COOLING OUTLET VALVE	AC-CCW	CONT	994	8WBB37NIII	NA	SR
HCV-438B	HCV-438B	7	P	AUX/CCW	35367	RCP & CEDM SEAL COOLING INLET VALVE	AC-CCW	13	992	9WN3N6C	NA	SR
HCV-438C	HCV-438C	7	P	AUX/CCW	35368	RCP & CEDM SEAL COOLING INLET VALVE	AC-CCW	CONT	994	6WCC0NIV	NA	SR
HCV-438D	HCV-438D	7	P	AUX/CCW	35367	RCP & CEDM SEAL COOLING OUTLET VALVE	AC-CCW	13	992	12WN3N6C	NA	SR
HCV-442	HCV-442	7	P	AUX/CCW	35368	RC-3A SEAL COOLER OUTLET VALVE	AC-CCW	CONT	0995	01WBB10NII	NA	S
HCV-443	HCV-443	7	P	AUX/CCW	35368	RC-3B SEAL COOLER OUTLET VALVE	AC-CCW	CONT	0995	00WBB15NII	NA	S
HCV-444	HCV-444	7	P	AUX/CCW	35368	RC-3C SEAL COOLER OUTLET VALVE	AC-CCW	CONT	0995	0WCC0NIV	NA	S
HCV-445	HCV-445	7	P	AUX/CCW	35368	RC-3D SEAL COOLER OUTLET VALVE	AC-CCW	CONT	0995	15WBB0NIV	NA	S
HCV-446	HCV-446	7	P	AUX/CCW	35368	RCP 3A LUBE OIL COOLER CCW OUTLET VALVE	AC-CCW	CONT	997	1W'BB-10N'II	NA	N
HCV-447	HCV-447	7	P	AUX/CCW	35368	RCP 3B LUBE OIL COOLER CCW OUTLET VALVE	AC-CCW	CONT	997	0W'BB-24N'II	NA	N
HCV-448	HCV-448	7	P	AUX/CCW	35368	RCP 3C LUBE OIL COOLER CCW OUTLET VALVE	AC-CCW	CONT	997	0W'CC-0N'IV	NA	N
HCV-449	HCV-449	7	P	AUX/CCW	35368	RCP 3D LUBE OIL COOLER CCW OUTLET VALVE	AC-CCW	CONT	997	16W'BB-0N'IV	NA	N
HCV-467B	HCV-467B	7	P	AUX/CCW	41741	DETECTOR WELL COOLING COILS CCW OUTLET VALVE	AC-CCW	13	993	5W'L-8N'5A	NA	N
HCV-474	HCV-474	7	P	AUX/CCW	55196	LPSI/HPSI/CONT SPRAY HEAT EXCHANGERS CCW OUTLET VALVE	AC-CCW	6	992	9W'T-2N'6E	NA	N
HCV-478	HCV-478	7	P	AUX/CCW	55196	STORAGE POOL HEAT EXCHANGER CCW OUTLET VALVE	AC-CCW	5	993	6W'R-8N'5A	NA	N
HCV-482A	HCV-482A	7	P	AUX/CCW	55196	RAW WATER CROSSTIE; INLET VALVE	AC-RW	4	1006	2E'E-28N'5B	NA	N
HCV-483A	HCV-483A	7	P	AUX/CCW	55196	RAW WATER CROSSTIE; INLET VALVE	AC-RW	4	1005	3E'E-12N'5B	NA	N
HCV-484	HCV-484	7	P	AUX/CCW	55196	SHUTDOWN COOLING HEAT EXCHANGERS CCW OUTLET VALVE	AC-CCW	4	993	2E'E-22N'5B	NA	N
HCV-485	HCV-485	7	P	AUX/CCW	55196	SHUTDOWN COOLING HEAT EXCHANGERS CCW OUTLET VALVE	AC-CCW	4	993	2E'E-16N'5B	NA	N
HCV-489A	HCV-489A	7	A	AUX/CCW	55196	AC-1A CCW HX INLET VALVE	AC-CCW	4	995	10WD11N5B	NA	SR
HCV-489A	HCV-489A-20	0	A	AUX/IA	15410	3 WAY SOLENOID VALVE FOR HCV-489A	AC-CCW	4	0995	10WD11N5B	AI-41A-12	S
HCV-489A	HCV-489A-O	7	A	AUX/IA	15410	CONTROL VALVE OPERATOR FOR HCV-489A	AC-CCW	4	0995	10WD11N5B	NA	S
HCV-489B	HCV-489B	7	A	AUX/CCW	55195	AC-1A CCW HX OUTLET VALVE	AC-CCW	4	992	10WD1N6D	NA	SR

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
HCV-489B	HCV-489B-20	0	A	AUX/IA	15410	3 WAY SOLENOID VALVE FOR HCV-489B	AC-CCW	4	0992	10WD1N6D	AI-41A-12	S
HCV-489B	HCV-489B-O	7	A	AUX/IA	15410	CONTROL VALVE OPERATOR FOR HCV-489B	AC-CCW	4	0992	10WD1N6D	NA	S
HCV-490A	HCV-490A	7	A	AUX/CCW	55196	AC-1B CCW HX INLET VALVE	AC-CCW	4	1005	9WD13N5B	NA	SR
HCV-490A	HCV-490A-20	0	A	AUX/IA	15411	3 WAY SOLENOID VALVE FOR HCV-490A	AC-CCW	4	1001	9WD13N5B	AI-41B-12	S
HCV-490A	HCV-490A-O	7	A	AUX/IA	15411	CONTROL VALVE OPERATOR FOR HCV-490A	AC-CCW	4	1004	09WD13N5B	NA	S
HCV-490B	HCV-490B	7	A	AUX/CCW	55195	AC-1B CCW HX OUTLET VALVE	AC-CCW	4	1003	10WD2N6D	NA	SR
HCV-490B	HCV-490B-20	0	A	AUX/IA	15411	3 WAY SOLENOID VALVE FOR HCV-490B	AC-CCW	4	1003	10WD2N6D	AI-41B-12	S
HCV-490B	HCV-490B-O	7	A	AUX/IA	15411	CONTROL VALVE OPERATOR FOR HCV-490B	AC-CCW	4	1003	10WD2N6D	NA	S
HCV-491A	HCV-491A	7	A	AUX/CCW	55196	AC-1C CCW HX INLET VALVE	AC-CCW	18	992	06ED06N5B	NA	SR
HCV-491A	HCV-491A-20	0	A	AUX/IA	15412	3 WAY SOLENOID VALVE FOR HCV-491A	AC-CCW	18	0992	06ED06N5B	AI-41A-12	S
HCV-491A	HCV-491A-O	7	A	AUX/IA	15412	CONTROL VALVE OPERATOR FOR HCV-491A	AC-CCW	18	0992	06ED06N5B	NA	S
HCV-491B	HCV-491B	7	A	AUX/CCW	55195	AC-1C CCW HX OUTLET VALVE	AC-CCW	18	992	08ED10S5B	NA	SR
HCV-491B	HCV-491B-20	0	A	AUX/IA	15412	3 WAY SOLENOID VALVE FOR HCV-491B	AC-CCW	18	0992	08ED10S5B	AI-41A-12	S
HCV-491B	HCV-491B-O	7	A	AUX/IA	15412	CONTROL VALVE OPERATOR FOR HCV-491B	AC-CCW	18	0992	08ED10S5B	NA	S
HCV-492A	HCV-492A	7	A	AUX/CCW	55196	AC-1D CCW HX INLET VALVE	AC-CCW	18	992	08ED17S6D	NA	SR
HCV-492A	HCV-492A-20	0	A	AUX/IA	15413	3 WAY SOLENOID VALVE FOR HCV-492A	AC-CCW	18	0992	08ED17S6D	AI-41B-12	S
HCV-492A	HCV-492A-O	7	A	AUX/IA	15413	CONTROL VALVE OPERATOR FOR HCV-492A	AC-CCW	18	0992	08ED17S6D	NA	S
HCV-492B	HCV-492B	7	A	AUX/CCW	55195	AC-1D CCW HX OUTLET VALVE	AC-CCW	18	992	08ED01N6D	NA	SR
HCV-492B	HCV-492B-20	0	A	AUX/IA	15413	3 WAY SOLENOID VALVE FOR HCV-492B	AC-CCW	18	0992	21WC33N5B	AI-41B-12	S
HCV-492B	HCV-492B-O	7	A	AUX/IA	15413	CONTROL VALVE OPERATOR FOR HCV-492B	AC-CCW	18	0992	21WC33N5B	NA	S
HCV-497	HCV-497	7	A	AUX/CCW	55196	CCW BYPASS LINE ISOL VALVE	AC-CCW	4	0991	2E'E-8S'7A	NA	S
HCV-497	HCV-497-O	7	A	AUX/CCW	15418	CCW BYPASS LINE ISOL VALVE OPERATOR	AC-CCW	4	991	2E'E-8S'7A	NA	S
VA-15A	HCV-724A	0	A	AUX/CCW	10431	CNTMT CLG & FILTER UNIT VA-15A; INLET DAMPER	VA-CON	CONT	1063	18WAA-13NII	NA	SR
VA-15A	HCV-724A-O	0	A	AUX/CCW	12287	CNTMT CLG & FILTER UNIT VA-15A; INLET DAMPER OPERATOR	VA-CON	CONT	1063	18WAA-13NII	NA	S
VA-15B	HCV-725A	0	A	AUX/CCW	10431	CNTMT CLG & FILTER UNIT VA-15B; INLET DAMPER	VA-CON	CONT	1063	18WAA-29NIII	NA	SR
VA-15B	HCV-725A-O	0	A	AUX/CCW	12287	CNTMT CLG & FILTER UNIT VA-15B; INLET DAMPER OPERATOR	VA-CON	CONT	1063	18WAA-29NIII	NA	S
HCV-921	HCV-921	7	P	DHR	10458	RADIATION MONITOR RE-064, ISOL VALVE	MS	81	1043	13W'D-0N'4A	NA	SR
HCV-922	HCV-922	7	P	DHR	10458	RADIATION MONITOR RE-064, ISOL VALVE	MS	81	1043	13W'D-0N'4A	NA	SR
CB-1,2,3	HIC-101	20	A	AUX/EE	1267	LCV-101-1 & LCV-101-2 INDICATING CONTROLLER	CH	77	1036	CB-1,2,3	AI-40A-20	S
CB-10,11	HIC-1107B	20	A	DHR	15793	HAND/INDICATING CONTROL SWITCH FOR HCV-1107B	FW-AFW	77	1036	CB-10,11	AI-40B-21	S
AI-179	HIC-1107B-1	20	A	DHR	15793	HAND/INDICATING CONTROL SWITCH FOR HCV-1107B	FW-AFW	57	1013	AI-179	NA	S
CB-10,11	HIC-1108B	20	A	DHR	15794	HAND/INDICATING CONTROL SWITCH FOR HCV-1108B	FW-AFW	77	1036	CB-10,11	AI-40B-21	S
AI-179	HIC-1108B-1	20	A	DHR	15794	HAND/INDICATING CONTROL SWITCH FOR HCV-1108B	FW-AFW	57	1013	AI-179	NA	S
CB-1,2,3	HIC-400	0	A	AUX/CCW	15339	MANUAL LOADER FOR HCV-400C	AC-CCW	77	1036	CB-1,2,3	AI-40A-1	S
CB-1,2,3	HIC-401	0	A	AUX/CCW	15342	MANUAL LOADER FOR HCV-401C	AC-CCW	77	1036	CB-1,2,3	AI-40A-1	S
CB-1,2,3	HIC-402	0	A	AUX/CCW	15345	MANUAL LOADER FOR HCV-402C	AC-CCW	77	1036	CB-1,2,3	AI-40A-1	S
CB-1,2,3	HIC-403	0	A	AUX/CCW	15348	MANUAL LOADER FOR HCV-403C	AC-CCW	77	1036	CB-1,2,3	AI-40A-1	S
AI-45	HIC-497	20	A	AUX/EE	15418	HCV-497 INDICATING HAND CONTROLLER	AC-CCW	77	1036	AI-45	AI-40C-21	S
AI-42A	I-BUS-1	14	A	AUX/EE	48120	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-42A	EE-8P	S
AI-42B	I-BUS-2	14	A	AUX/EE	48120	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-42B	EE-8Q	S
AI-40A	I-BUS-A	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40A	EE-8H	S
AI-40A	I-BUS-A1	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40A	AI-40A-17	S
AI-40B	I-BUS-B	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40B	EE-8J	S
AI-40B	I-BUS-B1	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40B	AI-40B-17	S
AI-40C	I-BUS-C	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40C	EE-8K	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
AI-40C	I-BUS-C1	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40C	AI-40C-17	S
AI-40D	I-BUS-D	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40D	EE-8L	S
AI-40D	I-BUS-D1	14	A	AUX/EE	12234	120VAC PANEL DISTRIBUTION BUS	EE-8B	77	1036	AI-40D	AI-40C-17	S
AI-42A	I-BUS-I1-1	14	A	AUX/EE	48120	120VAC FEEDER BREAKER TO DIST BUS I-BUS-1	EE-8B	77	1036	AI-42A	EE-8P	S
AI-42B	I-BUS-I2-1	14	A	AUX/EE	48120	120VAC FEEDER BREAKER TO DIST BUS I-BUS-2	EE-8B	77	1036	AI-42B	EE-8Q	S
AI-40A	I-BUS-IA-1	14	A	AUX/EE	12245	120VAC FEEDER BREAKER TO DIST BUS I-BUS-A	EE-8B	77	1036	AI-40A	EE-8H	S
AI-40B	I-BUS-IB-1	14	A	AUX/EE	48119	120VAC FEEDER BREAKER TO DIST BUS I-BUS-B	EE-8B	77	1036	AI-40B	EE-8J	S
AI-40C	I-BUS-IC-1	14	A	AUX/EE	12245	120VAC FEEDER BREAKER TO DIST BUS I-BUS-C	EE-8B	77	1036	AI-40C	EE-8K	S
AI-40D	I-BUS-ID-1	14	A	AUX/EE	48119	120VAC FEEDER BREAKER TO DIST BUS I-BUS-D	EE-8B	77	1036	AI-40D	EE-8L	S
DG-1	JW-106	0	A	AUX/EDG	17388	DG-1 JACKET WATER TEMPERATURE REGULATING VALV	JW	63	1015	03EK-09N1A	NA	S
DG-1	JW-1-1	21	P	AUX/EDG	17388	DG-1 JACKET WATER EXPANSION TANK	JW	63	1019	01WK-09N1A	NA	S
DG-2	JW-116	0	A	AUX/EDG	48724	DG-2 JACKET WATER TEMPERATURE REGULATING VALV	JW	64	1015	03EK-07S2B	NA	S
DG-2	JW-1-2	21	P	AUX/EDG	48724	DG-2 JACKET WATER EXPANSION TANK	JW	64	1019	01WK-07S2B	NA	S
DG-1	JW-2-1	21	P	AUX/EDG	17388	DG-1 IMMERSION HEATER	JW	63	1009	00WK-07N1A	DP1-3	SR
DG-2	JW-2-2	21	P	AUX/EDG	48724	DG-2 IMMERSION HEATER	JW	64	1009	00WK-08S2B	DP1-3	SR
DG-1	JW-3-1	21	P	AUX/EDG	17388	DG-1 RADIATOR	JW	63	1016	07WK-08N1A	NA	S
DG-2	JW-3-2	21	P	AUX/EDG	48724	DG-2 RADIATOR (TAGGED AS JW-3-1 ON DWG R/10)	JW	64	1016	07WK-08S2B	NA	S
DG-1	JW-4-1	0	A	AUX/EDG	17388	JW-1-1 FILLER CAP/PRESSURE RELIEF	JW	63	1020	45WD9N1A	NA	S
DG-2	JW-4-2	0	A	AUX/EDG	48724	JW-1-2 FILLER CAP/PRESSURE RELIEF	JW	64	1020	45WD20N1A	NA	S
AI-4A	LA-101X	20	A	INV	10227	LEVEL SWITCH FOR PRESSURIZER LEVEL	RC	77	1036	AI-4A	AI-40A-20	S
AI-4B	LA-101Y	20	A	INV	16956	LEVEL SWITCH FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-40B-21	S
AI-4B	LC-101-1	20	A	INV	10227	LEVEL CONTROLLER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-40A-20	S
AI-4B	LC-101-2	20	A	INV	10227	LEVEL CONTROLLER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-40A-20	S
AI-4A	LC-101X	20	A	INV	10227	LEVEL CONTROLLER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4A	AI-40A-20	S
CB-1,2,3	LC-101X-1	20	A	AUX/EE	1267	LEVEL CONTROLLER FOR RC-4 PRESSURIZER	RC	77	1036	CB-1,2,3	AI-40A-20	S
AI-4B	LC-101Y	20	A	INV	16956	LEVEL CONTROLLER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-40B-21	S
CB-1,2,3	LC-101Y-1	20	A	AUX/EE	1267	LEVEL CONTROLLER FOR RC-4 PRESSURIZER	RC	77	1036	CB-1,2,3	AI-40B-21	S
AI-4A	LCA-101X	20	A	INV	10227	LEVEL CONTROLLER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4A	AI-40A-20	S
AI-4B	LCA-101Y	20	A	INV	16956	LEVEL CONTROLLER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-40B-21	S
GM-1	LCM-101X	20	A	INV	10227	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	GM-1	AI-42A-07	S
AI-4B	LCM-101Y	20	A	INV	16956	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-42B-09	S
LCV-101-1	LCV-101-1	7	A	INV	55158	PRESSURIZER RC-4 LEVEL; LETDOWN CONTROL VALVE	CH	CONT	0997	9WEE-17NIII	NA	S
LCV-101-1	LCV-101-1-O	7	A	INV	1267	PRESSURIZER RC-4 LEVEL; LETDOWN CONTROL VALVE OPERATOR	CH	CONT	997	9WEE-17NIII	NA	S
LCV-101-2	LCV-101-2	7	A	INV	55158	PRESSURIZER RC-4 LEVEL; LETDOWN CONTROL VALVE	CH	CONT	0997	10WEE-20NIII	NA	S
LCV-101-2	LCV-101-2-O	7	A	INV	1267	PRESSURIZER RC-4 LEVEL; LETDOWN CONTROL VALVE OPERATOR	CH	CONT	997	10WEE-20NIII	NA	S
LCV-1173	LCV-1173	7	P	DHR	55540	EMERGENCY FEEDWATER MAKEUP	FW-AFW	81	1039	7E'D-0N'3A	NA	N
LCV-1189	LCV-1189	7	P	DHR	55540	DEMIN MAKE-UP WATER VALVE	FW-AFW	81	1039	7E'D-0S'4A	NA	N
LCV-218-2	LCV-218-2	7	A	INV,R,P	10476	VCT OUTLET VALVE	CH	29	1010	43WT24N7A	NA	SR
LCV-218-3	LCV-218-3	7	A	INV,R,P	10476	SIRWT CVCS CROSS CONNECT VALVE	CH	7	992	45WT02N7B	NA	SR
LCV-218-3	LCV-218-3-M	0	A	INV	15296	CONTROL VALVE OPERATOR MOTOR FOR LCV-218-3	CH	7	0994	44WT02N7B	MCC-3A2-E03	S
LCV-218-3	LCV-218-3-O	0	A	INV	15296	CONTROL VALVE OPERATOR FOR LCV-218-3	CH	7	0992	45WT02N7B	NA	S
AI-185	LI-101Y	20	A	INV	16956	LEVEL INDICATOR FOR PRESSURIZER LEVEL	RC	57	1013	AI-185	INV-D-01	S
AI-66A	LI-1183-1	20	A	DHR	21348	LEVEL INDICATOR FOR EFWST	FW-AFW	77	1036	AI-66A	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
CB-10,11	LI-1188	20	A	DHR	21349	LEVEL INDICATOR FOR EFWST	FW-AFW	77	1036	CB-10,11	NA	S
AI-66B	LI-1188-1	20	A	DHR	21349	LEVEL INDICATOR FOR EFWST	FW-AFW	77	1036	AI-66B	NA	S
CB-10,11	LIA-1183	20	A	DHR	21348	LEVEL INDICATOR ALARM FOR EFWST	FW-AFW	77	1036	CB-10,11	AI-40A-20	S
AI-4A	LIC-101X	20	A	INV	10227	LEVEL INDICATOR FOR PRESSURIZER LEVEL	RC	77	1036	AI-4A	AI-40A-20	S
AI-4B	LIC-101Y	20	A	INV	16956	LEVEL INDICATOR FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	AI-40B-21	S
GM-1	LM-101	20	A	INV	10227	SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	GM-1	AI-40A-20	S
GM-1	LM-101X	20	A	INV	10227	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	GM-1	AI-42A-07	S
AI-4A	LM-101X-1	20	A	INV	10227	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4A	AI-40A-20	S
AI-4A	LM-101XX	20	A	INV	10227	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4A	AI-40A-20	S
GM-1	LM-101Y	20	A	INV	16956	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	GM-1	AI-42B-09	S
AI-4B	LM-101Y-1	20	A	INV	16956	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	AI-4B	NA	S
GM-1	LM-101YX	20	A	INV	16956	LEVEL SIGNAL MODIFIER FOR PRESSURIZER LEVEL	RC	77	1036	GM-1	AI-40B-21	S
CB-10,11	LM-1183	20	A	DHR	21348	LEVEL SIGNAL MODIFIER FOR LT-1183	FW-AFW	77	1036	CB-10,11	NA	S
CB-10,11	LM-1188	20	A	DHR	21349	LEVEL SIGNAL MODIFIER FOR LT-1188	FW-AFW	77	1036	CB-10,11	NA	S
DG-1	LO-162	7	A	AUX/EDG	48725	DG-1 OIL CIRC PUMP RELIEF	LO	63	1011	17WF12N1A	NA	S
DG-2	LO-163	7	A	AUX/EDG	17387	DG-2 OIL CIRC PUMP RELIEF	LO	64	1011	18WF27N1A	NA	S
DG-1	LO-173	7	A	AUX/EDG	48725	DG-1 TURBO OIL CIRC PUMP RELIEF	LO	63	1009	17WF12N1A	NA	S
DG-2	LO-174	7	A	AUX/EDG	17387	DG-2 TURBO OIL CIRC PUMP RELIEF	LO	64	1009	18WF27N1A	NA	S
DG-1	LO-32-1	21	P	AUX/EDG	17388	DG-1 LUBE OIL COOLER	LO	63	1013	01EK-08N1A	NA	S
DG-2	LO-32-2	21	P	AUX/EDG	48724	DG-2 LUBE OIL COOLER	LO	64	1013	01EK-07S2B	NA	S
DG-1	LO-33-1	5	A	AUX/EDG	48725	DG-1 OIL CIRC PUMP	LO	63	1009	01EK-11N1A	NA	S
DG-1	LO-33-1-M	5	A	AUX/EDG	48725	DG-1 OIL CIRC PUMP MOTOR	LO	63	1009	01EK-11N1A	DP1-3	S
DG-2	LO-33-2	5	A	AUX/EDG	17387	DG-2 OIL CIRC PUMP	LO	64	1009	01EK-04S2B	NA	S
DG-2	LO-33-2-M	5	A	AUX/EDG	17387	DG-2 OIL CIRC PUMP MOTOR	LO	64	1009	01EK-04S2B	DP1-3	S
DG-1	LO-36-1	5	A	AUX/EDG	48725	DG-1 SCAVENGING PUMP	LO	63	1011	21WF14N1A	NA	S
DG-2	LO-36-2	5	A	AUX/EDG	17387	DG-2 SCAVENGING PUMP	LO	64	1010	18WF28N1A	NA	S
DG-1	LO-37-1	5	A	AUX/EDG	48725	DG-1 PISTON COOLING PUMP	LO	63	1013	15WF9N1A	NA	S
DG-2	LO-37-2	5	A	AUX/EDG	17387	DG-2 PISTON COOLING PUMP	LO	64	1013	15WF22N1A	NA	S
DG-1	LO-38-1	5	A	AUX/EDG	48725	DG-1 PRESSURE PUMP	LO	63	1013	15WF6N1A	NA	S
DG-2	LO-38-2	5	A	AUX/EDG	17387	DG-2 PRESSURE PUMP	LO	64	1013	15WF24N1A	NA	S
DG-1	LO-40-1	5	A	AUX/EDG	48725	DG-1 TURBO OIL CIRC PUMP	LO	63	1008	20WF10N1A	NA	S
DG-1	LO-40-1-M	5	A	AUX/EDG	48725	DG-1 TURBO OIL CIRC PUMP MOTOR	LO	63	1008	20WF10N1A	LO-40-1-MS	S
DG-1	LO-40-1-MS	3	A	AUX/EE	17408	FEEDER BREAKER TO LO-40-1-M	LO	63	1008	0WK10N1A	DP1-4	S
DG-2	LO-40-2	5	A	AUX/EDG	17387	DG-2 TURBO OIL CIRC PUMP	LO	64	1008	21WF28N1A	NA	S
DG-2	LO-40-2-M	5	A	AUX/EDG	17387	DG-2 TURBO OIL CIRC PUMP MOTOR	LO	64	1008	21WF28N1A	LO-40-2-MS	S
DG-2	LO-40-2-MS	3	A	AUX/EE	17408	FEEDER BREAKER TO LO-40-2-M	LO	64	1008	0WK28N1A	DP2-4	S
LO-56	LO-56	21	P	DHR	56510	FW-10 LUBE OIL COOLER COOLING SUPPLIED BY AUX	LO	19	0990	5WC5N3A	NA	S
GM-1	LQ-101X	20	A	INV	10227	LOOP POWER SUPPLY FOR PRESSURIZER LEVEL	RC	77	1036	GM-1	AI-40A-01	S
AI-4A	LQ-101X-1	20	A	INV	10227	LOOP POWER SUPPLY FOR PRESSURIZER LEVEL	RC	77	1032	AI-4A	AI-40A-20	S
AI-185	LQ-101Y	20	A	INV	16956	LOOP POWER SUPPLY FOR PRESSURIZER LEVEL	RC	57	1036	AI-185	INV-D-01	S
AI-4B	LQ-101Y-1	20	A	INV	16956	LOOP POWER SUPPLY FOR PRESSURIZER LEVEL	RC	77	1032	AI-4B	AI-40B-21	S
GM-1	LQ-1183	20	A	DHR	21348	POWER SUPPLY MODULE FOR LT-1183	FW-AFW	77	1036	GM-1	NA	S
GE/MAC	LQ-1188	20	A	DHR	21349	POWER SUPPLY MODULE FOR LT-1188	FW-AFW	77	1036	GE/MAC	NA	S
CB-1,2,3	LR-101X	20	A	INV	10227	LEVEL RECORDER FOR PRESSURIZER LEVEL	RC	77	1036	CB-1,2,3	AI-40A-01	S
CB-1,2,3	LR-101Y	20	A	INV	16956	LEVEL RECORDER FOR PRESSURIZER LEVEL	RC	77	1036	CB-1,2,3	AI-40D-01	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
LT-101X	LT-101X	18	A	INV	10227	PRESSURIZER LEVEL TRANSMITTER	RC	CONT	1013	15WCC3NI	NA	S
LT-101Y	LT-101Y	18	A	INV	16956	PRESSURIZER LEVEL TRANSMITTER	RC	CONT	1013	18WDD14NII	NA	S
LT-1183	LT-1183	18	A	DHR	21348	EFWST LEVEL	FW-AFW	81	1039	18WC13N3A	NA	S
LT-1188	LT-1188	18	A	DHR	21349	EFWST LEVEL	FW-AFW	81	1038	18S3A-7ED	NA	S
MCC-3A1	MCC-3A1	1	A	AUX/EE	42194	MOTOR CONTROL CENTER	EE-5	57	1013	02WD14N4A	1B3A-2	S
MCC-3A1	MCC-3A1-A2R	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO XFMR EE-4S	EE-5	57	1013	MCC-3A1	MCC-3A1	S
MCC-3A1	MCC-3A1-B01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HTRS-BNK1-GRP1	EE-5	57	1013	MCC-3A1	MCC-3A1	S
MCC-3A1	MCC-3A1-C01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HTRS-BNK1-GRP2	EE-5	57	1013	MCC-3A1	MCC-3A1	S
MCC-3A1	MCC-3A1-D01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HTRS-BNK1-GRP3	EE-5	57	1013	MCC-3A1	MCC-3A1	S
MCC-3A1	MCC-3A1-E04	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HCV-1385-M	FW	57	1013	MCC-3A1	MCC-3A1	S
MCC-3A1	MCC-3A1-F03A	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO XFMR EE-4V	EE-5	57	1013	MCC-3A1	MCC-3A1	S
MCC-3A2	MCC-3A2	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	4	0989	01WQ05S7A	1B3A-3	S
MCC-3A2	MCC-3A2-E03	1	A	AUX/EE	12242	480VAC FEEDER BREAKER TO LCV-218-3	CH	4	0989	MCC-3A2	MCC-3A2	S
MCC-3A2	MCC-3A2-E04	1	A	AUX/EE	12242	480VAC FEEDER BREAKER TO LCV-218-2	CH	4	0989	MCC-3A2	MCC-3A2	S
MCC-3B1	MCC-3B1	1	A	AUX/EE	12243	MOTOR CONTROL CENTER	EE-5	57	1013	02WD05S4A	1B3B-2	S
MCC-3B1	MCC-3B1-C2L	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO BATT CHG EE-8C	EE-8A	57	1013	MCC-3B1	MCC-3B1	S
MCC-3B1	MCC-3B1-C2R	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO VA-46A	VA-CR	57	1013	MCC-3B1	MCC-3B1	S
MCC-3B1	MCC-3B1-E3R	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO XFMR EE-4N	EE-5	57	1013	MCC-3B1	MCC-3B1	S
MCC-3B1	MCC-3B1-G2R	1	A	AUX/EE	12243	480VAC EMER FEEDER BREAKER TO ATA-D2	EE-5	57	1013	MCC-3B1	MCC-3B1	S
MCC-3B1	MCC-3B1-G4R	1	A	AUX/EE	12243	480VAC NORM FEEDER BREAKER TO ATA-D1	EE-5	57	1013	MCC-3B1	MCC-3B1	S
MCC-3B1	MCC-3B1-H02	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO HCV-150-M	RC	57	1013	MCC-3B1	MCC-3B1	S
MCC-3B3	MCC-3B3	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	INTK	1007	10W'CC-3N'101	1B3B-6	S
MCC-3B3	MCC-3B3-A04	1	A	AUX/EE	43125	BREAKER TO STRAINER MOTOR AC-12A-M	EE-5	INTK	1007	MCC-3B3	MCC-4B1	S
MCC-3C1	MCC-3C1	1	A	AUX/EE	42194	MOTOR CONTROL CENTER	EE-5	57	1013	02WD10N3A	1B3C-1	S
MCC-3C1	MCC-3C1-A01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO PCV-102-1	RC	57	1013	MCC-3C1	MCC-3C1	S
MCC-3C1	MCC-3C1-A2L	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO BATT CHG EE-8E	EE-8A	57	1013	MCC-3C1	MCC-3C1	S
MCC-3C1	MCC-3C1-A4R	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO XFMR EE-4Q	EE-5	57	1013	MCC-3C1	MCC-3C1	S
MCC-3C2	MCC-3C2	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	26	1007	0WQ8N7A	1B3C-2	S
MCC-3C2	MCC-3C2-C01	1	A	AUX/EE	12242	480VAC FEEDER BREAKER TO HCV-265	CH	26	1007	MCC-3C2	MCC-3C2	S
MCC-4A1	MCC-4A1	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	57	1013	10WD14N4A	1B4A-2	S
MCC-4A1	MCC-4A1-A03	1	A	AUX/EE	12243	480VAC EMER FEEDER BREAKER TO ATA-D1	EE-5	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-A04	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO XFMR EE-4U	EE-5	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-A05	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO XFMR EE-4T	EE-5	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-C02	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO BATT CHG EE-8D	EE-8A	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-C03	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO VA-46B	VA-CR	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-C04	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO HCV-1041C	MS	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-C05	1	A	AUX/EE	12243	480VAC FEEDER BREAKER TO HCV-151-M	RC	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A1	MCC-4A1-E05	1	A	AUX/EE	12243	480VAC NORM FEEDER BREAKER TO ATA-D2	EE-5	57	1013	MCC-4A1	MCC-4A1	S
MCC-4A2	MCC-4A2	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	26	1007	05EQ08N7A	1B4A-3	S
MCC-4A2	MCC-4A2-E02	1	A	AUX/EE	12242	480VAC FEEDER BREAKER TO HCV-258	CH	26	1007	MCC-4A2	MCC-4A2	S
MCC-4B1	MCC-4B1	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	57	1013	10W'D-0N'4A	1B4B-2	S
MCC-4B1	MCC-4B1-A02	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO PCV-102-2	RC	57	1013	MCC-4B1	MCC-4B1	S
MCC-4B1	MCC-4B1-A4R	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO XFMR EE-4P	EE-5	57	1013	MCC-4B1	MCC-4B1	S
MCC-4C1	MCC-4C1	1	A	AUX/EE	42194	MOTOR CONTROL CENTER	EE-5	57	1013	10WD10N3A	1B4C-2	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
MCC-4C1	MCC-4C1-A01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO PRSZR BANK 4 HTRS	EE-5	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C1	MCC-4C1-B01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO PRSZR BANK 4 HTRS	EE-5	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C1	MCC-4C1-C01	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO PRSZR BANK 4 HTRS	EE-5	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C1	MCC-4C1-E03	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HCV-1384	FW-AFW	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C1	MCC-4C1-E04	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HCV-1386	FW	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C1	MCC-4C1-F03	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO HCV-1042C	MS	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C1	MCC-4C1-F05	1	A	AUX/EE	42194	480VAC FEEDER BREAKER TO XFMR EE-4R	EE-5	57	1013	MCC-4C1	MCC-4C1	S
MCC-4C4	MCC-4C4	1	A	AUX/EE	12234	MOTOR CONTROL CENTER	EE-5	INTK	1007	0W'CC-3N'101	1B4C-7	S
MCC-4C4	MCC-4C4-D07	1	A	AUX/EE	43125	BREAKER TO STRAINER MOTOR AC-12B-M	EE-5	INTK	1007	MCC-4C4	MCC-4B1	S
MS-275	MS-275	7	A	DHR	10458	RC-2A SELF ACTUATED RELIEF VALVE	MS	81	1039	05EG-6S4A	NA	S
MS-276	MS-276	7	A	DHR	10458	RC-2A SELF ACTUATED RELIEF VALVE	MS	81	1039	7EG-06S4A	NA	S
MS-277	MS-277	7	A	DHR	10458	RC-2A SELF ACTUATED RELIEF VALVE	MS	81	1040	10WD-0N4A	NA	S
MS-278	MS-278	7	A	DHR	10458	RC-2A SELF ACTUATED RELIEF VALVE	MS	81	1040	10WD-2N4A	NA	S
MS-279	MS-279	7	A	DHR	10458	RC-2B SELF ACTUATED RELIEF VALVE	MS	81	1038	19WD5N4A	NA	S
MS-280	MS-280	7	A	DHR	10458	RC-2B SELF ACTUATED RELIEF VALVE	MS	81	1038	18WD05N04A	NA	S
MS-281	MS-281	7	A	DHR	10458	RC-2B SELF ACTUATED RELIEF VALVE	MS	81	1038	10EG-12N4A	NA	S
MS-282	MS-282	7	A	DHR	10458	RC-2B SELF ACTUATED RELIEF VALVE	MS	81	1038	10EG-14N4A	NA	S
MS-291	MS-291	7	A	DHR	10458	RC-2A PORV	MS	81	1039	19WD24N3A	NA	SR
MS-291	MS-291-20	0	A	DHR	43437	RC-2A PORV SOLENOID	MS	81	1042	0W'G-0N'4A	AI-41A-14	S
MS-291	MS-291-O	7	A	DHR	43437	RC-2A PORV OPERATOR	MS	81	1039	19W'D-24N'3A	NA	S
MS-292	MS-292	7	A	DHR	10458	RC-2B PORV	MS	81	1038	10EG-10N4A	NA	SR
MS-292	MS-292-20	0	A	DHR	43437	RC-2B PORV SOLENOID	MS	81	1043	0E'D-0N'4A	AI-41B-14	S
MS-292	MS-292-O	7	A	DHR	43437	RC-2B PORV OPERATOR	MS	81	1043	0W'E-12N'4A	NA	S
NE-001	NE-001	0	A	RC	24276	WIDE RANGE LOGARITHMIC NUCLEAR DETECTOR	AI-NI	CONT	1000	18WBB0NIII	NA	S
NE-004	NE-004	0	A	RC	24276	WIDE RANGE LOGARITHMIC NUCLEAR DETECTOR	AI-NI	CONT	1000	18WBB0NIII	NA	S
AI-212	NI-001-DA1	20	P	RC	24276	INSTRUMENT MODULE FOR NUETRON FLUX MONITORING	AI-NI	UNK	UNK	AI-212	NA	S
AI-212	NI-004	20	P	RC	24276	INDICATOR FOR NUETRON FLUX MONITORING	AI-NI	57	1013	AI-212	INV-D-01	S
AI-212	NI-004-DA1	20	P	RC	24276	INSTRUMENT MODULE FOR NUETRON FLUX MONITORING	AI-NI	UNK	UNK	AI-212	NA	S
NM-004	NM-004	20	A	RC	24276	INSTRUMENT MODULE FOR NUETRON FLUX MONITORING	AI-NI	57	1018	24WD17N4A	INV-D-01	S
AI-212	NR-004	20	P	RC	24276	RECORDER FOR NUETRON FLUX MONITORING	AI-NI	57	1013	AI-212	INV-D-01	S
NT-001	NT-001	20	A	RC	24276	INSTRUMENT MODULE FOR NUETRON FLUX MONITORING	AI-NI	20	1005	8WG28N4A	NA	S
NT-004	NT-004	20	A	RC	24276	INSTRUMENT MODULE FOR NUETRON FLUX MONITORING	AI-NI	57	1018	3WF16N4A	INV-D-01	S
PCV-102-1	PCV-102-1	7	A	PC	42107	PORV	RC	CONT	1047	21WCC09NII	NA	SR
PCV-102-2	PCV-102-2	7	A	PC	42107	PORV	RC	CONT	1047	4WDD09NII	NA	SR
PCV-103-1	PCV-103-1	7	P	PC	42107	PRESSURIZER RC-4; SPRAY CONTROL VALVE	RC	CONT	1047	13WDD-13NII	NA	N
PCV-103-2	PCV-103-2	7	P	PC	42107	PRESSURIZER RC-4; SPRAY CONTROL VALVE	RC	CONT	1047	12WDD-12NII	NA	N
PCV-2839	PCV-2839	7	P	AUX/CCW	55195	N2 VENT HDR PRESSURE CONTROL VALVE	AC-CCW	69	1038	6W'L-14N'7A	NA	N
PCV-840A-1	PCV-840A-1	0	A	AUX/CCW	56299	VA-46A DISCHARGE DAMPER	VA-CR	72	1047	8W'J1-15N'7A	NA	S
PCV-840A-1	PCV-840A-1-O	0	A	AUX/CCW	21846	VA-46A DISCHARGE DAMPER OPERATOR	VA-CR	72	1047	8W'J1-15N'7A	NA	S
PCV-840A-2	PCV-840A-2	0	A	AUX/CCW	56299	VA-46A DISCHARGE DAMPER	VA-CR	72	1047	8W'J1-11N'7A	NA	S
PCV-840A-2	PCV-840A-2-O	0	A	AUX/CCW	21846	VA-46A DISCHARGE DAMPER OPERATOR	VA-CR	72	1047	8W'J1-11N'7A	NA	S
PCV-840B	PCV-840B	0	A	AUX/CCW	56299	VA-46A RECIRC AIR INTAKE DAMPER	VA-CR	72	1050	12W'J1-12N'7A	NA	SR
PCV-840B	PCV-840B-20	0	A	AUX/CCW	21846	VA-46A RECIRC AIR INTAKE DAMPER SOLENOID	VA-CR	72	1050	12W'J1-12N'7A	NA	S
PCV-840B	PCV-840B-O	0	A	AUX/CCW	21846	VA-46A RECIRC AIR INTAKE DAMPER OPERATOR	VA-CR	72	1050	12W'J1-12N'7A	NA	S
PCV-841A-1	PCV-841A-1	0	A	AUX/CCW	56299	VA-46B DISCHARGE DAMPER	VA-CR	72	1047	8W'J1-14N'6D	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
PCV-841A-1	PCV-841A-1-O	0	A	AUX/CCW	21846	VA-46B DISCHARGE DAMPER OPERATOR	VA-CR	72	1047	8WJ1-14N'6D	NA	S
PCV-841A-2	PCV-841A-2	0	A	AUX/CCW	56299	VA-46B DISCHARGE DAMPER	VA-CR	72	1047	8WJ1-10N'6D	NA	S
PCV-841A-2	PCV-841A-2-O	0	A	AUX/CCW	21846	VA-46B DISCHARGE DAMPER OPERATOR	VA-CR	72	1047	8WJ1-10N'6D	NA	S
PCV-841B	PCV-841B	0	A	AUX/CCW	56299	VA-46B RECIRC AIR INTAKE DAMPER	VA-CR	72	1050	12WJ1-14N'6D	NA	SR
PCV-841B	PCV-841B-20	0	A	AUX/CCW	21846	VA-46B RECIRC AIR INTAKE DAMPER SOLENOID	VA-CR	72	1050	12WJ1-14N'6D	NA	S
PCV-841B	PCV-841B-O	0	A	AUX/CCW	21846	VA-46B RECIRC AIR INTAKE DAMPER OPERATOR	VA-CR	72	1050	12WJ1-14N'6D	NA	S
PI-2854-1	PI-2854-1	18	A	AUX/RW	16035	RAW WATER PUMP DISCHARGE PRESSURE	RW	INTK	998	15WBB12N102	NA	S
PI-2855-1	PI-2855-1	18	A	AUX/RW	16035	RAW WATER PUMP DISCHARGE PRESSURE	RW	INTK	998	16WBB10N103	NA	S
PI-2856-1	PI-2856-1	18	A	AUX/RW	16035	RAW WATER PUMP DISCHARGE PRESSURE	RW	INTK	998	16WBB11N103	NA	S
PI-2857-1	PI-2857-1	18	A	AUX/RW	16035	RAW WATER PUMP DISCHARGE PRESSURE	RW	INTK	998	17WBB8N104	NA	S
CB-1,2,3	PI-499	20	A	DHR	15420	CCW PUMP DISCHARGE PRESSURE INDICATOR	AC-CCW	77	1036	CB-1,2,3	NA	S
AI-179	PM-115	20	A	DHR	2111	PRESSURE MODIFIER	RC	57	1013	AI-179	INV-C-01	S
GM-1	PQ-105	20	A	DHR	15820	PRESSURIZER PRESSURE LOOP POWER SUPPLY	RC	77	1036	GM-1	P/Q-2	S
AI-179	PQ-115	20	A	DHR	2111	LOOP POWER SUPPLY	RC	57	1013	AI-179	INV-C-01	S
GM-2	PQ-499	20	A	DHR	15420	CCW PUMP DISCHARGE PRESSURE INDICATOR	AC-CCW	77	1036	GM-2	PS-3	S
PT-105	PT-105	18	A	DHR	15820	PRESSURIZER PRESSURE TRANSMITTER	RC	CONT	1003	14WCC2NI	PQ-105	S
PT-115	PT-115	18	A	DHR	2111	PRESSURIZER PRESSURE TRANSMITTER	RC	CONT	1013	15WCC3NI	PQ-115	S
PT-499	PT-499	18	A	AUX/RW	15420	COMPONENT COOLING PUMP DISCHARGE PRESSURE	RW	69	1029	1WN-0N8A	PQ-499	S
CB-1,2,3	Q-1109/1183	20	A	DHR	21348	POWER SUPPLY	FW	77	1036	CB-1,2,3	NA	S
AI-10B	Q-1110/1188	20	A	DHR	21349	POWER SUPPLY	FW	77	1036	AI-10B	NA	S
AI-208A	QSPDS-A	20	A	DHR	16294	RCS QSPDS SUBCOOLED MARGIN MONITOR A	PC-QSP	77	1036	AI-208A	NA	S
AI-208B	QSPDS-B	20	A	DHR	16294	RCS QSPDS SUBCOOLED MARGIN MONITOR B	PC-QSP	77	1036	AI-208B	NA	S
RC-141	RC-141	7	A	PC	42107	PZR CODE SAFETY VALVE	RC	CONT	1049	09WDD22NII	NA	S
RC-142	RC-142	7	A	PC	42107	PZR CODE SAFETY VALVE	RC	CONT	1049	02WDD22NII	NA	S
RC-3A-COOLER	RC-3A-COOLER	21	P	AUX/CCW	35368	RC-3A LUBE OIL COOLER	AC-CCW	CONT	1013	18W'CC-21N'II	NA	N
RC-3B-COOLER	RC-3B-COOLER	21	P	AUX/CCW	35368	RC-3B LUBE OIL COOLER	AC-CCW	CONT	1013	8W'BB-21N'II	NA	N
RC-3C-COOLER	RC-3C-COOLER	21	P	AUX/CCW	35368	RC-3C LUBE OIL COOLER	AC-CCW	CONT	1013	24W'CC-20N'III	NA	N
RC-3D-COOLER	RC-3D-COOLER	21	P	AUX/CCW	35368	RC-3D LUBE OIL COOLER	AC-CCW	CONT	1013	9W'BB-22N'III	NA	N
RC-4	RC-4-HTRS-1	21	A	PC	42107	PZR BACKUP HEATER BANK 1, GROUP 1	EE-5	CONT	1020	6W'DD-19N'II	MCC-3A1-B01	SR
RC-4	RC-4-HTRS-10	21	A	PC	42107	PZR BACKUP HEATER BANK 4, GROUP 1	EE-5	CONT	1020	6W'DD-19N'II	MCC-4C1-A01	SR
RC-4	RC-4-HTRS-11	21	A	PC	42107	PZR BACKUP HEATER BANK 4, GROUP 2	EE-5	CONT	1020	6W'DD-19N'II	MCC-4C1-B01	SR
RC-4	RC-4-HTRS-12	21	A	PC	42107	PZR BACKUP HEATER BANK 4, GROUP 3	EE-5	CONT	1020	6W'DD-19N'II	MCC-4C1-C01	SR
RC-4	RC-4-HTRS-2	21	A	PC	42107	PZR BACKUP HEATER BANK 1, GROUP 2	EE-5	CONT	1020	6W'DD-19N'II	MCC-3A1-C01	SR
RC-4	RC-4-HTRS-3	21	A	PC	42107	PZR BACKUP HEATER BANK 1, GROUP 3	EE-5	CONT	1020	6W'DD-19N'II	MCC-3A1-D01	SR
DG-1	SA-141	0	A	AUX/EDG	17390	DG-1 STARTING AIR SOLENOID VALVE	SA	63	1007	3WF11N1A	NA	S
DG-1	SA-142	0	A	AUX/EDG	17390	DG-1 STARTING AIR SOLENOID VALVE	SA	63	1008	3WF4N1A	NA	S
DG-1	SA-143	7	A	AUX/EDG	17390	DG-1 STARTING AIR PRESSURE REGULATING VALVE	SA	63	1007	4WF11N1A	NA	S
DG-1	SA-144	7	A	AUX/EDG	17390	DG-1 STARTING AIR PRESSURE REGULATING VALVE	SA	63	1008	4WF4N1A	NA	S
DG-1	SA-145	7	A	AUX/EDG	17390	DG-1 AIR RELAY VALVE	SA	63	1007	4WF11N1A	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
DG-1	SA-146	7	A	AUX/EDG	17390	DG-1 AIR RELAY VALVE	SA	63	1008	4WF4N1A	NA	S
DG-1	SA-147	7	A	AUX/EDG	17390	DG-1 AIR STARTING VALVE	SA	63	1007	3WF11N1A	NA	S
DG-1	SA-148	7	A	AUX/EDG	17390	DG-1 AIR STARTING VALVE	SA	63	1008	03WF04N1A	NA	S
DG-2	SA-191	0	A	AUX/EDG	38753	DG-2 STARTING AIR SOLENOID VALVE	SA	64	1008	3WF28N1A	NA	S
DG-2	SA-192	0	A	AUX/EDG	38753	DG-2 STARTING AIR SOLENOID VALVE	SA	64	1008	3WF22N1A	NA	S
DG-2	SA-193	7	A	AUX/EDG	38753	DG-2 STARTING AIR PRESSURE REGULATING VALVE	SA	64	1008	3WF28N1A	NA	S
DG-2	SA-194	7	A	AUX/EDG	38753	DG-2 STARTING AIR PRESSURE REGULATING VALVE	SA	64	1008	4WF22N1A	NA	S
DG-2	SA-195	7	A	AUX/EDG	38753	DG-2 AIR RELAY VALVE	SA	64	1008	3WF28N1A	NA	S
DG-2	SA-196	7	A	AUX/EDG	38753	DG-2 AIR RELAY VALVE	SA	64	1008	4WF22N1A	NA	S
DG-2	SA-197	7	A	AUX/EDG	38753	DG-2 AIR STARTING VALVE	SA	64	1008	3WF28N1A	NA	S
DG-2	SA-198	7	A	AUX/EDG	38753	DG-2 AIR STARTING VALVE	SA	64	1008	4WF22N1A	NA	S
SA-3A-1	SA-3A-1	21	P	AUX/EDG	17390	DG-1 STARTING AIR RECIEVER	SA	63	1025	16WD16N1A	NA	S
SA-3A-2	SA-3A-2	21	P	AUX/EDG	38753	DG-2 STARTING AIR RECIEVER	SA	64	1027	03EF-02S2B	NA	S
SA-3B-1	SA-3B-1	21	P	AUX/EDG	17390	DG-1 STARTING AIR RECIEVER	SA	63	1029	16WD16N1A	NA	S
SA-3B-2	SA-3B-2	21	P	AUX/EDG	38753	DG-2 STARTING AIR RECIEVER	SA	64	1032	03EF-02S2B	NA	S
SA-4A-1	SA-4A-1	21	P	AUX/EDG	17390	DG-1 STARTING AIR RECIEVER	SA	63	1029	0WF16N1A	NA	S
SA-4A-2	SA-4A-2	21	P	AUX/EDG	38753	DG-2 STARTING AIR RECIEVER	SA	64	1027	04WF-02S2B	NA	S
SA-4B-1	SA-4B-1	21	P	AUX/EDG	17390	DG-1 STARTING AIR RECIEVER	SA	63	1025	0WF16N1A	NA	S
SA-4B-2	SA-4B-2	21	P	AUX/EDG	38753	DG-2 STARTING AIR RECIEVER	SA	64	1032	04WF-02S2B	NA	S
DG-1	SA-8-1A-1	0	A	AUX/EDG	17390	DG-1 UPPER STARTING AIR STARTER MOTOR	SA	63	1011	21WD12N1A	NA	S
DG-1	SA-8-1A-2	0	A	AUX/EDG	17390	DG-1 UPPER STARTING AIR STARTER MOTOR	SA	63	1010	21WD12N1A	NA	S
DG-1	SA-8-1B-1	0	A	AUX/EDG	17390	DG-1 UPPER STARTING AIR STARTER MOTOR	SA	63	1011	21WD6N1A	NA	S
DG-1	SA-8-1B-2	0	A	AUX/EDG	17390	DG-1 UPPER STARTING AIR STARTER MOTOR	SA	63	1010	21WD6N1A	NA	S
DG-2	SA-8-2A-1	0	A	AUX/EDG	38753	DG-2 UPPER STARTING AIR STARTER MOTOR	SA	64	1011	18WD27N1A	NA	S
DG-2	SA-8-2A-2	0	A	AUX/EDG	38753	DG-2 UPPER STARTING AIR STARTER MOTOR	SA	64	1010	18WD27N1A	NA	S
DG-2	SA-8-2B-1	0	A	AUX/EDG	38753	DG-2 UPPER STARTING AIR STARTER MOTOR	SA	64	1011	18WD21N1A	NA	S
DG-2	SA-8-2B-2	0	A	AUX/EDG	38753	DG-2 UPPER STARTING AIR STARTER MOTOR	SA	64	1010	18WD21N1A	NA	S
SI-1A	SI-1A	10	P	AUX/CCW	41741	LPSI SPRAY PUMP SEAL COOLER	SI-LP	21	0972	45W'T-6N'6E	NA	S
SI-1B	SI-1B	10	P	AUX/CCW	41741	LPSI SPRAY PUMP SEAL COOLER	SI-LP	22	0972	1W'T-15S'8A	NA	S
SI-2A	SI-2A	10	P	AUX/CCW	41741	CONT SPRAY PUMP SEAL COOLER	SI-HP	21	0972	44W'T-18N'6E	NA	S
SI-2B	SI-2B	10	P	AUX/CCW	41741	CONT SPRAY PUMP SEAL COOLER	SI-HP	22	0972	0E'T-6S'8A	NA	S
SI-2C	SI-2C	10	P	AUX/CCW	41741	CONT SPRAY PUMP SEAL COOLER	SI-HP	21	0972	10E'U-6S'8A	NA	S
SI-323	SI-323	7	P	AUX/CCW	56027	HPSI HEADER CHECK VALVE	SI-HP	13	992	15W'P-8S'7A	NA	N
SI-3A	SI-3A	10	P	AUX/CCW	41741	HPSI SPRAY PUMP SEAL COOLER	SI-CS	21	0972	46W'T-16N'5D	NA	S
SI-3B	SI-3B	10	P	AUX/CCW	41741	HPSI SPRAY PUMP SEAL COOLER	SI-CS	22	0972	1W'T-1N'6C	NA	S
SI-3C	SI-3C	10	P	AUX/CCW	41741	HPSI SPRAY PUMP SEAL COOLER	SI-CS	22	0972	1W'T-3N'6E	NA	S
SI-4A	SI-4A	10	P	AUX/CCW	41741	S.I. TANK LEAKAGE COOLER	SI-LP	CONT	1020	15WDD-20NII	NA	S
SI-4B	SI-4B	10	P	AUX/CCW	41741	S.I. TANK LEAKAGE COOLER	SI-LP	CONT	1014	6W'BB-30N'II	NA	S
SI-4C	SI-4C	10	P	AUX/CCW	41741	S.I. TANK LEAKAGE COOLER	SI-LP	CONT	1013	14WEE-12NIII	NA	S
SI-4D	SI-4D	10	P	AUX/CCW	41741	S.I. TANK LEAKAGE COOLER	SI-LP	CONT	1014	8WBB-12NIII	NA	S
SI-5	SI-5	21	P	INV	10479	SIRWT	SI-LP	2	0989	SW AUX	NA	S
SL-3	SL-3	21	P	AUX/CCW	41741	SAMPLE HEAT EXCHANGER	SL-PRI	60	1010	34W'P-6N'5D	NA	S
SL-51	SL-51	10	P	AUX/CCW	41741	PRIMARY SAMPLE COOLER	SL-SEC	60	1007	23W'P-0N'6E	NA	S
SL-8A	SL-8A	21	P	AUX/CCW	41741	SAMPLE HEAT EXCHANGER	SL-PRI	60	1011	19W'P-14N'5D	NA	S
SL-8B	SL-8B	21	P	AUX/CCW	41741	SAMPLE HEAT EXCHANGER	SL-PRI	60	1012	19W'P-12N'5D	NA	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
CB-4 AUX	SMMCM-A	20	A	DHR	9490	SUBCOOLED MARGIN MONITOR CALC MODULE A	CB	77	1036	CB-4 AUX	AI-40A-12	S
CB-4 AUX	SMMCM-B	20	A	DHR	9492	SUBCOOLED MARGIN MONITOR CALC MODULE B	CB	77	1036	CB-4 AUX	AI-40B-06	S
T1B-3A	T1B-3A	4	A	AUX/EE	12234	4160/480 VOLT TRANSFORMER	EE-4B	56	1011	7WC0N6D	1A3	S
T1B-3B	T1B-3B	4	A	AUX/EE	12234	4160/480 VOLT TRANSFORMER	EE-4B	56	1011	7WC0N5B	1A3	S
T1B-3C	T1B-3C	4	A	AUX/EE	12234	4160/480 VOLT TRANSFORMER	EE-4B	56	1011	7WC17N4A	1A3	S
T1B-4A	T1B-4A	4	A	AUX/EE	12234	4160/480 VOLT TRANSFORMER	EE-4A	56	1011	20WC30N5B	1A4	S
T1B-4B	T1B-4B	4	A	AUX/EE	12234	4160/480 VOLT TRANSFORMER	EE-4B	56	1011	20WC0N5B	1A4	S
T1B-4C	T1B-4C	4	A	AUX/EE	12234	4160/480 VOLT TRANSFORMER	EE	56	1011	20WC14N4A	1A4	S
TCV-202	TCV-202	7	A	INV	55158	LETDOWN TEMPERATURE CONTROL VALVE	CH	CONT	998	8WCC-24NIII	NA	SR
TCV-202	TCV-202-20	0	A	INV	1279	LETDOWN TEMPERATURE CONTROL VALVE SOLENOID	CH	CONT	1004	9WCC-24NIII	AI-41A-12	S
TCV-202	TCV-202-O	7	A	INV	1279	LETDOWN TEMPERATURE CONTROL VALVE OPERATOR	CH	CONT	998	8WCC-24NIII	NA	S
TCV-2897A	TCV-2897A	7	P	AUX/CCW	55196	LETDOWN HEAT EXCHANGER CCW OUTLET VALVE	AC-CCW	12	992	6E'Q-11S'6D	NA	N
TCV-2897B	TCV-2897B	7	P	AUX/CCW	55196	LETDOWN HEAT EXCHANGER CCW OUTLET VALVE	AC-CCW	12	991	3E'Q-9S'6D	NA	N
TCV-893	TCV-893	7	A	AUX/CCW	10440	CONTROL ROOM HVAC ISOLATION	AC-CCW	72	1037	8WJ112N7A	NA	SR
TCV-894	TCV-894	7	A	AUX/CCW	10440	CONTROL ROOM HVAC ISOLATION	AC-CCW	72	1037	8WJ111N6D	NA	SR
VA-14A	VA-14A	10	P	AUX/CCW	41741	DETECTOR WELL COOLING COILS	AC-CCW	CONT	0994	19WAA-33NII	NA	S
VA-14B	VA-14B	10	P	AUX/CCW	41741	DETECTOR WELL COOLING COILS	AC-CCW	CONT	0994	15WAA-14NIII	NA	S
VA-15A	VA-15A	10	P	AUX/HVA	10431	CONT AIR COOL/FILTER UNIT A HOUSING	VA-CON	CONT	1060	0W'BB-24N'II	NA	S
VA-15B	VA-15B	10	P	AUX/HVA	10431	CONT AIR COOL/FILTER UNIT B HOUSING	VA-CON	CONT	1060	0W'BB-24N'III	NA	S
VA-15A	VA-1A	10	P	AUX/CCW	35367	CONTAINMENT HVAC COOLING & FILTER UNIT HX	VA-CON	CONT	1060	24WAA30NII	NA	S
VA-15B	VA-1B	10	P	AUX/CCW	35367	CONTAINMENT HVAC COOLING & FILTER UNIT HX	VA-CON	CONT	1060	24WAA12NIII	NA	S
VA-3A	VA-3A	9	A	AUX/HVA	10431	CONTAINMENT HVAC FILTER AND COOLING UNIT FAN	VA-CON	CONT	1060	18WAA39NII	NA	S
VA-3A	VA-3A-M	9	A	AUX/HVA	12240	CONTAINMENT HVAC FAN MOTOR	VA-CON	CONT	1060	18WAA39NII	1B3A-7	S
VA-3B	VA-3B	9	A	AUX/HVA	10431	CONTAINMENT HVAC FILTER AND COOLING UNIT FAN	VA-CON	CONT	1060	18WAA3NIII	NA	S
VA-3B	VA-3B-M	9	A	AUX/HVA	12241	CONTAINMENT HVAC FAN MOTOR	VA-CON	CONT	1060	18WAA3NIII	1B4C-8	S
VA-46A	VA-46A	10	P	AUX/CCW	10440	CONTROL ROOM HVAC COOLER AND FAN	VA-CR	72	1036	8WJ1-12N7A	MCC-3B1-C2R	SR
VA-46B	VA-46B	10	P	AUX/CCW	10440	CONTROL ROOM HVAC COOLER AND FAN	VA-CR	72	1036	8WJ1-11N6D	MCC-4A1-C03	SR
VA-16A	VA-8A	10	P	AUX/CCW	35367	CONTAINMENT AIR COOLING COILS	AC-CCW	CONT	1045	18W'AA-33N'II	NA	S
VA-16B	VA-8B	10	P	AUX/CCW	35367	CONTAINMENT AIR COOLING COILS	AC-CCW	CONT	1045	18W'AA-9N'III	NA	S
WD-28A	WD-28A	21	P	AUX/CCW	41741	GAS COMPRESSOR SEAL WATER HX	WD-G	16	0993	7E'L-22S'9	NA	S
WD-28B	WD-28B	21	P	AUX/CCW	41741	GAS COMPRESSOR SEAL WATER HX	WD-G	16	0993	7E'L-10S'9	NA	S
WD-930	WD-930	7	P	AUX/CCW	10474	CONCENTRATE COOLER WD-21 CCW INLET VALVE	WD-L	30	1008	22W'T-14N'7A	NA	N
WD-931	WD-931	7	P	AUX/CCW	10474	CONCENTRATE COOLER WD-21 CCW OUTLET VALVE	WD-L	30	1009	26W'T-9S'8A	NA	N
WD-934	WD-934	7	P	AUX/CCW	49127	VAPOR CONDENSER WD-70 CCW OUTLET VALVE	WD-L	30	1018	23W'T-16N'7A	NA	N
WD-935	WD-935	7	P	AUX/CCW	49127	VAPOR CONDENSER WD-70 CCW OUTLET VALVE	WD-L	30	1009	23W'T-16N'7A	NA	N
WD-941	WD-941	7	P	AUX/CCW	49127	DISTILLATE COOLER WD-71 CCW OUTLET VALVE	WD-L	30	1012	21W'T-16N'7A	NA	N
WD-942	WD-942	7	P	AUX/CCW	49127	DISTILLATE COOLER WD-71 CCW INLET VALVE	WD-L	30	1009	19W'T-15N'7A	NA	N
YCV-1045	YCV-1045	7	A	DHR	10458	AFW PUMP FW-10 STEAM SUPPLY	MS	19	996	06WC01N3A	NA	SR
YCV-1045	YCV-1045-20	0	A	AUX/IA	15775	3 WAY SOLENOID VALVE FOR YCV-1045	MS	19	0998	06WC1N3A	AI-41B-04	S
YCV-1045	YCV-1045-20-2	0	A	AUX/IA	15775	YCV-1045 INSTRUMENT AIR TRIP LEG SOLENOID VALVES	MS	19	0998	06WC1N3A	EE-8G-17	S
YCV-1045A	YCV-1045A	7	A	DHR	10458	RC-2A TO AFW STEAM SUPPLY	MS	81	1044	03WD-2S4A	NA	SR
YCV-1045A	YCV-1045A-20	0	A	AUX/IA	49211	3 WAY SOLENOID VALVE FOR YCV-1045A	MS	81	1047	03WD02S4A	AI-41B-14	S
YCV-1045A	YCV-1045A-O	7	A	AUX/IA	15775	CONTROL VALVE OPERATOR FOR YCV-1045A	MS	81	1044	03WD-2S4A	NA	S
YCV-1045B	YCV-1045B	7	A	DHR	10458	RC-2B TO AFW STEAM SUPPLY	MS	81	1042	11EG-17N4A	NA	SR
YCV-1045B	YCV-1045B-20	0	A	DHR	43389	RC-2B TO AFW STEAM SUPPLY SOLENOID	MS	81	1046	11E'G-17N'4A	AI-41B-14	S

BASE LIST 1 (BL 1)

BOX	ASSEL	SCLASS	SFUNCT	SSPATH	EFILE	NAME	SYSTEM	EROOM	EELEV	ELOCATION	EPOWER	EVALU
YCV-1045B	YCV-1045B-O	7	A	DHR	43389	RC-2B TO AFW STEAM SUPPLY OPERATOR	MS	81	1046	11E'G-17N'4A	NA	S
YCV-1045	YCV-1045-O	7	A	AUX/IA	15775	CONTROL VALVE OPERATOR FOR YCV-1045	MS	19	0996	06WC01N3A	NA	S
YCV-871A	YCV-871A	0	A	AUX/EDG	56299	DIESEL GENERATOR 2; FRESH AIR DAMPER	VA-EDL	65	1042	11W'D-9N'1A	NA	SR
YCV-871A	YCV-871A-20	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER SOLENOID	VA-EDL	65	1042	11W'D-9N'1A	NA	S
YCV-871A	YCV-871A-O	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER OPERATOR	VA-EDL	65	1042	11W'D-9N'1A	NA	S
YCV-871B	YCV-871B	0	A	AUX/EDG	56299	DIESEL GENERATOR 2; FRESH AIR DAMPER	VA-EDL	65	1042	11W'M-4N'1A	NA	SR
YCV-871B	YCV-871B-20	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER SOLENOID	VA-EDL	65	1042	11W'M-4N'1A	NA	S
YCV-871B	YCV-871B-O	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER OPERATOR	VA-EDL	65	1042	11W'M-4N'1A	NA	S
YCV-871C	YCV-871C	0	A	AUX/EDG	56299	DIESEL GENERATOR 2; FRESH AIR DAMPER	VA-EDL	65	1042	11W'M-24N'1A	NA	SR
YCV-871C	YCV-871C-20	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER SOLENOID	VA-EDL	65	1042	11W'M-24N'1A	NA	S
YCV-871C	YCV-871C-O	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER OPERATOR	VA-EDL	65	1042	11W'M-24N'1A	NA	S
YCV-871D	YCV-871D	0	A	AUX/EDG	56299	DIESEL GENERATOR 2; FRESH AIR DAMPER	VA-EDL	65	1042	11W'M-17N'1A	NA	SR
YCV-871D	YCV-871D-20	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER SOLENOID	VA-EDL	65	1042	11W'M-17N'1A	NA	S
YCV-871D	YCV-871D-O	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; FRESH AIR DAMPER OPERATOR	VA-EDL	65	1042	11W'M-17N'1A	NA	S
YCV-871E	YCV-871E	0	A	AUX/EDG	56299	DIESEL GENERATOR 1; RADIATOR EXHAUST DAMPER	VA-EDL	63	1030	19W'K-2N'1A	NA	SR
YCV-871E	YCV-871E-20	0	A	AUX/EDG	23736	DIESEL GENERATOR 1; RADIATOR EXHAUST DAMPER SOLENOID	VA-EDL	63	1030	19W'K-2N'1A	NA	S
YCV-871E	YCV-871E-O	0	A	AUX/EDG	23736	DIESEL GENERATOR 1; RADIATOR EXHAUST DAMPER OPERATOR	VA-EDL	63	1030	19W'K-2N'1A	NA	S
YCV-871F	YCV-871F	0	A	AUX/EDG	56299	DIESEL GENERATOR 2; RADIATOR EXHAUST DAMPER	VA-EDL	64	1030	19W'K-17N'1A	NA	SR
YCV-871F	YCV-871F-20	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; RADIATOR EXHAUST DAMPER SOLENOID	VA-EDL	64	1030	19W'K-17N'1A	NA	S
YCV-871F	YCV-871F-O	0	A	AUX/EDG	23737	DIESEL GENERATOR 2; RADIATOR EXHAUST DAMPER OPERATOR	VA-EDL	64	1030	19W'K-17N'1A	NA	S
YCV-871G	YCV-871G	0	A	AUX/EDG	56299	DIESEL GENERATOR 1; FRESH AIR DAMPER	VA-EDL	MISL	1024	10W'F-11S'1A	NA	SR
YCV-871G	YCV-871G-20	0	A	AUX/EDG	23736	DIESEL GENERATOR 1; FRESH AIR DAMPER SOLENOID	VA-EDL	MISL	1024	10W'F-11S'1A	NA	S
YCV-871G	YCV-871G-O	0	A	AUX/EDG	23736	DIESEL GENERATOR 1; FRESH AIR DAMPER OPERATOR	VA-EDL	MISL	1024	10W'F-11S'1A	NA	S
YCV-871H	YCV-871H	0	A	AUX/EDG	56299	DIESEL GENERATOR 1; FRESH AIR DAMPER	VA-EDL	MISL	1024	10W'K-11S'1A	NA	SR
YCV-871H	YCV-871H-20	0	A	AUX/EDG	23736	DIESEL GENERATOR 1; FRESH AIR DAMPER SOLENOID	VA-EDL	MISL	1024	10W'K-11S'1A	NA	S
YCV-871H	YCV-871H-O	0	A	AUX/EDG	23736	DIESEL GENERATOR 1; FRESH AIR DAMPER OPERATOR	VA-EDL	MISL	1024	10W'K-11S'1A	NA	S

BASE LIST 2 (BL 2)

Equipment Class	Equipment ID	Description	System	Room	Elevation	Location
7	HCV-478	Storage Pool Heat Exchanger CCW Outlet Valve	AC-CCW	5	993	6WR-8N'5A
5	AC-5A	SFP Circulating pump	AC-SFP			
5	AC-5B	SFP Circulating pump	AC-SFP			
21	AC-8	SFP HX	AC-SFP	5	995	9WR-0N'5C
21	AC-7	SFP Demineralizer	AC-SFP			
21	AC-6	SFP Filter	AC-SFP			

SEISMIC WALKDOWN EQUIPMENT LIST (SWEL)

SWEL Item Number	BOX	ASSEL Associated Safe Shutdown List	CLASS	DESCRIPTION	SYSTEM	ROOM	ELEV	LOCATION	Safety Functions	SFP Item	Comments
1	AC-12B	AC-12B	0	RAW WATER STRAINER	AC-RW	INTK	0994	13W'BB-16N'104	4		
2	AC-12B	AC-12B-M	0	RAW WATER STRAINER AC-12B MOTOR	AC-RW	INTK	0999	13W'BB-16N'104	4		
3	YCV-871H	YCV-871H	0	DIESEL GENERATOR DG-1 ROOM FRESH AIR SUPPLY DAMPER	VA	MISL	1024	10W'K-11S'1A	1, 2, 3, 4, 5		
4	YCV-871H	YCV-871H-20	0	DIESEL GENERATOR DG-1 FRESH AIR INTAKE DAMPER : SOLENOID	VA	MISL	1020	1W'K-11S'1A	1, 2, 3, 4, 5		
5	MCC-3B1	MCC-3B1-C2R	1	VA-64-EHTR CONTROL ROOM FILTER VA-64A INLET HEATER	EE-5	57	1013	MCC-3B1	5		
6	1B3A	1B3A	2	480 VOLT BUS 1B3A (EE-4F)	EE-4B	56	1011	10W'C-21N'5B	1, 2, 3, 4, 5	SFP	Later
7	1B3B	1B3B	2	480 VOLT BUS 1B3B (EE-4H)	EE-4B	56	1011	10WC'-9N'5B	1, 2, 3, 4, 5	SFP	Later
8	1B3C	1B3C	2	480 VOLT BUS 1B3C (EE-4K)	EE-4B	56	1011	10W'C-10N'4A	1, 2		Later
9	1B4A	1B4A	2	480 VOLT BUS 1B4A (EE-4G)	EE-4B	56	1011	10E'D-15S'6D	1, 2, 3, 4, 5	SFP	Later
10	1B4B	1B4B	2	480 VOLT BUS 1B4B (EE-4J)	EE-4B	56	1011	10E'D-12N'5B	1, 2, 3, 5		Later
11	1B4C	1B4C	2	480 VOLT BUS 1B4C (EE-4L)	EE-4B	56	1011	15W'C-4N'4A	1, 2, 3, 4, 5	SFP	Later
12	1A4	1A4-11	3	BREAKER UNIT FEEDER FOR RAW WATER PUMP AC-10B	EE-4A	56	1011	1A4	4	SFP	
13	1A3	1A3	3	4.16KV BUS (EE-4C)	EE-4A	56	1016	11W'C-18N'1A	1, 2, 3, 4, 5	SFP	Later
14	1A4	1A4	3	4.16KV BUS (EE-4D)	EE-4A	56	1016	16W'C-18N'1A	1, 2, 3, 4, 5	SFP	Later
15	EE-4S	EE-4S	4	INVERTER #1, EE-8P BYPASS TRANSFORMER	EE	56	1011	0W'C-11N'6D	none		
16	T1B-3C	T1B-3C	4	4160/480 TRANSFORMER BUS 1B3C	EE	56	1011	7W'C-17N'4A	1, 2		
17	AC-3C	AC-3C	5	COMPONENT COOLING WATER PUMP	AC-CCW	69	1027	1W'N-3N'8A	3, 4	SFP	
18	AC-3B	AC-3B	5	COMPONENT COOLING WATER PUMP	AC-CCW	69	1027	1W'N-4'S8A	3, 4	SFP	
19	CH-1A	CH-1A	5	CHARGING PUMP	CH	6	0991	5E'U-4N'6E	1, 2, 3		
20	DG-2	FO-17-2	5	DIESEL GENERATOR DG-2 DC MOTOR DRIVEN FUEL OIL BOOSTER PUMP	FO-DG	64	1010	20W'F-22N'1A	1, 2, 3, 4, 5		
21	DG-2	FO-4A-2	5	D2 FUEL OIL TRANSFER PUMP #1	FO-DG	64	1012	3W'K-6S'2B	1, 2, 3, 4, 5		
22	FW-10	FW-10	5	AUXILIARY FEEDWATER PUMP (TURBINE-DRIVEN)	FW-AFW	19	0991	3W'C-1N'3A	4		
23	FW-6	FW-6	5	AUXILIARY FEEDWATER PUMP (MOTOR-DRIVEN)	FW-AFW	19	0992	4W'C-5S'4A	4		Later, Pump out of service
24	AC-10B	AC-10B	6	RAW WATER PUMP	AC-RW	INTK	0994	1E'CC-1N'103	3, 4	SFP	
25	AC-10D	AC-10D	6	RAW WATER PUMP	AC-RW	INTK	0994	1E'CC-1N'104	3, 4	SFP	
26	HCV-474	HCV-474	7	SI-1A&B,2A,B&C/SI-3A-C BRG CLRS CCW INLET HEADER ISOLATION VALVE	AC-CCW	6	0992	9W'T-2N'6E	none	SFP	
27	HCV-484	HCV-484	7	SHUTDOWN COOLING HT EXCH AC-4A CCW OUTLET VALVE	AC-CCW	4	0993	2E'E-22N'5B	4		
28	HCV-489B	HCV-489B	7	COMP COOLING HT EXCH AC-1A CCW OUTLET VALVE	AC-CCW	4	0992	10W'D-1N'6D	4, 5		
29	HCV-497	HCV-497	7	COMP CLG HT EXCHS AC-1A-D CCW BYPASS LINE ISOLATION VALVE	AC-CCW	4	0991	2E'E-8S'7A	4, 5		
30	TCV-893	TCV-893	7	AIR CONDITIONER VA-46A CCW SUPPLY TEMPERATURE CONTROL VALVE	AC-CCW	72	1037	8W'J1-12N'7A	none		
31	HCV-2874A	HCV-2874A	7	RAW WATER PUMPS DISCH HEADER ISOLATION VALVE	AC-RW	INTK	1001	6E'CC-4S'103	4, 5	SFP	
32	HCV-2875A	HCV-2875A	7	RAW WATER PUMPS DISCH HEADER ISOLATION VALVE	AC-RW	INTK	1001	6E'CC-7N'103	4, 5	SFP	
33	HCV-2877A	HCV-2877A	7	COMP CLG HT EXCHS AC-1A-D RAW WATER INLET HDR ISOLATION VALVE	AC-RW	18	0993	13E'D-12S'6D	4, 5	SFP	
34	HCV-2880A	HCV-2880A	7	COMP COOLING HT EXCH AC-1A RAW WATER INLET VALVE	AC-RW	18	0994	13E'D-6S'6D	4, 5	SFP	
35	HCV-2893	HCV-2893	7	RAW WATER TO CCW ISOLATION VALVE	AC-RW	18	0993	13E'D-19S'6D	4, 5	SFP	
36	HCV-240	HCV-240	7	PRESSURIZER RC-4 AUXILIARY SPRAY INLET VALVE	CH	CONT	1045	14W'DD-6N'11	5		

SEISMIC WALKDOWN EQUIPMENT LIST (SWEL)

SWEL Item Number	BOX	ASSEL Associated Safe Shutdown List	CLASS	DESCRIPTION	SYSTEM	ROOM	ELEV	LOCATION	Safety Functions	SFP Item	Comments
37	LCV-218-3	LCV-218-3	7	CHRG PUMPS CH-1A,B&C SUCT HDR SAFETY INJ & BORIC ACID SUPPLY VLV	CH	7	0992	45W'T-2N'7B	1, 2, 3		
38	FCV-1369	FCV-1369	7	TURB-DRIVEN AUX FEED PUMP FW-10 RECIRCULATION VALVE	FW-AFW	19	0991	3W'C-7N'3AA	4		
39	HCV-1107A	HCV-1107A	7	STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE	FW-AFW	CONT	1050	15W'BB-9N'II	4		
40	HCV-1107B	HCV-1107B	7	STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE	FW-AFW	81	1038	0W'H-4N'3A	4		
41	HCV-1384	HCV-1384	7	MAIN AND AUXILIARY FEEDWATER CROSSCONNECT VALVE	FW-AFW	81	1039	22E'D-21N'5B	4		
42	DG-2	SA-193	7	SECONDARY STARTING AIR PRESSURE REGULATION VALVE	SA	64	1008	3W'F-28N'1A	1, 2, 3, 4, 5		
43	VA-15B	VA-15B	10	CONTAINMENT AIR COOL/FILTER UNIT B HOUSING	VA-CON	CONT	1060	0W'BB-24N'III	5		
44	VA-46A	VA-46A	10	CONTROL ROOM AIR CONDITIONING UNIT	VA-CR	72	1036	8W'J1-12N'7A	none		
45	AI-41A	DC-BUS-AI-41A	14	PANEL BOARD	EE-8A	77	1036	AI-41A	1, 2, 3, 4, 5		
46	EE-8F	EE-8F	14	125V DC NUMBER 1 MAIN DISTRIBUTION PANEL	EE-8A	56	1011	9W'C-0N'7A	1, 2, 3, 4, 5		
47	AI-40A	I-BUS-A	14	BUS	EE-8B	77	1036	AI-40A	1, 2, 3, 4, 5		
48	EE-8A	EE-8A	15	125 VDC STATION BATTERY NO. 1	EE-8A	54	1012	9W'C-15N'7B	1, 2, 3, 4, 5		
49	EE-8C	EE-8C	16	125V DC BATTERY CHARGER NUMBER 1	EE-8A	56	1011	9W'C-13N'6D	1, 2, 3, 4, 5		
50	EE-8H	EE-8H	16	INSTRUMENT BUS "A" INVERTER "A"	EE-8A	56	1011	7W'C-6N'6D	1, 2, 3, 4, 5		
51	DG-2	DG-2	17	EMERGENCY DIESEL GENERATOR #2	DG	64	1010	3E'F-7S'2B	1, 2, 3, 4, 5	SFP	
52	FT-1368	FT-1368	18	MOTOR-DRIVEN AUX FEED PUMP FW-6 SUCTION FLOW TRANSMITTER	FW-AFW	19	0993	1W'C-4S'4A	4		
53	LT-1183	LT-1183	18	EMGY FEEDWATER STORAGE TNK FW-19 LEVEL TRANSMITTER	FW-AFW	81	1039	18W'C-13N'3A	4		
54	B/LT-911	B/LT-911	18	STEAM GENERATOR RC-2A WIDE RANGE LEVEL TRANSMITTER	MS	CONT	1011	15W'CC-3N'I	4		
55	B/PT-913	B/PT-913	18	STEAM GENERATOR RC-2A WIDE RANGE PRESSURE TRANSMITTER	MS	CONT	1002	15W'CC-3N'I	4		
56	A/PT-120	A/PT-120	18	PRESSURIZER RC-4 PRESSURE TRANSMITTER	DSS	CONT	1018	18W'DD-12N'II	2		
57	PI-2855-1	PI-2855-1	18	RAW WATER PUMP AC-10B DISCHARGE PRESSURE INDICATOR	AC-RW	INTK	0998	16W'BB-10N'103	4, 5	SFP	
58	AI-212	NI-001-DA1	20	INSTRUMENT MODULE FOR NUETRON FLUX MONITORING	AI-NI	57	1013	AI-212	1		
59	AC-1A	AC-1A	21	COMPONENT COOLING HEAT EXCHANGER	AC-CCW	4	0994	6W'D-18N'5B	4, 5	SFP	
60	AC-4B	AC-4B	21	SHUTDOWN COOLING HEAT EXCHANGER	AC-CCW	15	0994	13W'E-17S'7A	4		
61	AC-8	AC-8	21	SPENT FUEL POOL HEAT EXCHANGER	AC-SFP	5	0995	9W'R-0N'5C		SFP	
62	FO-2-2	FO-2-2	21	D-2 WALL MOUNTED FUEL OIL DAY TANK	FO-DG	64	1017	7E'K-1S'2B	1, 2, 3, 4, 5		
63	FW-19	FW-19	21	EMERGENCY FEEDWATER STORAGE TANK	FW-AFW	81	1045	12W'C-3N'3A	4		
64	DG-2	LO-32-2	21	D2 LUBE OIL COOLER	LO-DG	64	1013	1E'K-7S'2B	1, 2, 3, 4, 5		
65	AC-100	AC-100	8	COMP COOLING WATER PUMP AC-3A SUCTION VALVE	AC-CCW	69	1027	0W'N-17N'7A	4, 5	SFP	
66	AC-102	AC-102	8	COMP COOLING WATER PUMP AC-3A DISCHARGE VALVE	AC-CCW	69	1030	1W'N-4N'7A	4, 5	SFP	
67	AI-40A	AI-40A	14	120V A-C INSTRUMENT BUS "A"	EE-8B	77	1036	15W'D-11N'6D	1, 2, 3, 4, 5		
68	AI-41A	AI-41A	14	125V DC BUS NUMBER 1	AI	77	1036	15W'D-0N'7A	1, 2, 3, 4, 5		
69	C/LT-911	C/LT-911	20	STEAM GENERATOR RC-2A WIDE RANGE LEVEL TRANSMITTER	MS	CONT	1011	3W'BB-9N'II	4		
70	C/PT-913	C/PT-913	20	STEAM GENERATOR RC-2A WIDE RANGE PRESSURE TRANSMITTER	MS	CONT	1002	3W'BB-9N'II	4		
71	CH-115	CH-115	8	BORIC ACID STORAGE TANK CH-11A OUTLET VALVE	CH	26	1009	26W'T-9N'6E	1, 2, 3		
72	CH-143	CH-143	8	BORIC ACID PUMPS CH-4A & B DISCH TO CHARGING SUCT HDR CHECK VLV	CH	26	1016	8E'U-9N'6E	1, 2, 3		
73	CH-172	CH-172	8	CHARGING PUMP CH-1A SUCTION VALVE	CH	7	0990	48W'T-2N'7B	1, 2, 3		
74	CH-193	CH-193	8	CHARGING PUMP CH-1A DISCHARGE VALVE	CH	7	0990	5E'U-1N'7B	1, 2, 3		
75	CH-4A	CH-4A	5	BORIC ACID PUMP	CH	26	1007	22W'T-9N'6E	1, 2, 3		
76	FP-1B	FP1B	5	DIESEL FIRE PUMP	FP	INTK	1009	1E'CC-3S'105	4	SFP	
77	FP-456	FP-456	8	FIRE HOSE CABINET FP-10D 2 1/2 " AUX HOSE CONNECTION VALVE	FP	81	1039	1W'K-0N'2B	4		

SEISMIC WALKDOWN EQUIPMENT LIST (SWEL)

SWEL Item Number	BOX	ASSEL Associated Safe Shutdown List	CLASS	DESCRIPTION	SYSTEM	ROOM	ELEV	LOCATION	Safety Functions	SFP Item	Comments
78	FW-164	FW-164	8	STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET CHECK VALVE	FW-AFW	CONT	1048	20W/BB-7N/II	4		
79	FW-171	FW-171	8	MOTOR-DRIVEN AUX FEED PUMP FW-6 DISCHARGE VALVE	FW-AFW	19	0997	7W/C-16N/3A	4		
80	FW-172	FW-172	8	TURB-DRIVEN AUX FEED PUMP FW-10 DISCHARGE VALVE	FW-AFW	19	0997	7W/C-7N/3A	4		
81	HCV-1040	HCV-1040	7	MAIN STEAM ATMOSPHERIC DUMP VALVE	MS	81	1044	10W/D-10S/5B	4		
82	HCV-2917	HCV-2917	7	HPSI PUMP 2C SUCTION ISOLATION VALVE	SI-HP	21	0979	43W/T-32N/6E	1, 2, 3, 4		
83	HCV-2918	HCV-2918	7	HPSI PUMP 2C DISCHARGE ISOLATION VALVE	SI-HP	21	0979	46W/T-27N/6E	1, 2, 3, 4		
84	HCV-2947	HCV-2947	7	LPSI PUMP SI-1A SUCTION VALVE	SI-LP	21	0981	9E/U-7N/6C	2, 3, 4		
85	HCV-2948	HCV-2948	7	LPSI PUMP SI-1A DISCHARGE VALVE	SI-LP	21	0980	42W/T-4N/6E	2, 3, 4		
86	HCV-305	HCV-305	7	HPSI PUMP SI-2A/2C DISCHARGE CROSSCONNECT VALVE	SI-HP	21	0979	39W/T-16N/6E	1, 2, 3, 4		
87	IA-12	IA-12	21	HCV-240 INSTRUMENT AIR AIR ACCUMULATOR	CA-IA	CONT	1045	18W/DD-12N/II	2, 3, 4		
88	AI-33A	RM-051	18	CONTAINMENT NOBLE GAS RADIATION MONITOR REMOTE RATEMETER	RM	77	1036	AI-33A	5		
89	SI-6A	SI-6A	21	SAFETY INJECTION TANK	SI-LP	CONT	1013	3W/DD-6N/II	3, 4		
90	VA-280	VA-280	8	CNTMT H2 PURGE OUTBOARD ISOL VALVE TO CNTMT H2 PURGE FAN VA-80B	VA-CON	59	1020	9E/P-0N/6C	5		
91		HCV-478	7	SPENT FUEL POOL HT EXCH AC-8 CCW OUTLET VALVE	AC-CCW	5	0993	6W/R-8N/5A		SFP	
92		AC-5A	5	SPENT FUEL POOL CIRCULATING PUMP	AC-SFP	5	0989	10E/T-3N/5D		SFP	
93		AC-5B	5	SPENT FUEL POOL CIRCULATING PUMP	AC-SFP	5	0989	14E/T-3N/5D		SFP	
94		AC-7	21	STORAGE POOL DEMINERALIZER	AC-SFP	5	0990	1E/T-3S/5A		SFP	
95		AC-6	21	STORAGE POOL FILTER	AC-SFP	5	0990	1E/T-12N/4B		SFP	
96		RW-262	8	EMERGENCY FEEDWATER TANK FW-19 RAW WATER BACKUP CONNECTION VALVE	AC-RW	81	1040	4W/C-3N/5B	none		
Five Safety Functions											
1. Reactor reactivity control											
2. Reactor coolant pressure control											
3. Reactor coolant inventory control											
4. Decay heat removal											
5. Containment function											

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 1

Equipment ID No. AC-12B Equip. Class¹ 0, Other

Equipment Description Raw Water Strainer

Location: Bldg. Intake Floor El. 994' Room, Area Intake Structure, 13W/BB-16N'104

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
Strainer base has four 1.25" diameter anchor bolts to concrete, all of which have a lack of thread engagement to their nuts (varies from 3/8" to 1"). Also, nut seems bent. CR 2012-10553 initiated.

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 1

Equipment ID No. AC-12B Equip. Class² 0, Other

Equipment Description Raw Water Strainer

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 anchorage configuration is consistent with drawing 12545, Rev. 8
(File# 12107).*
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 1

Equipment ID No. AC-12B Equip. Class³ 0, Other

Equipment Description Raw Water Strainer

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: John Kao *John Kao* Date: 8/17/2012

Alex Smerch *Alex Smerch* 8/17/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

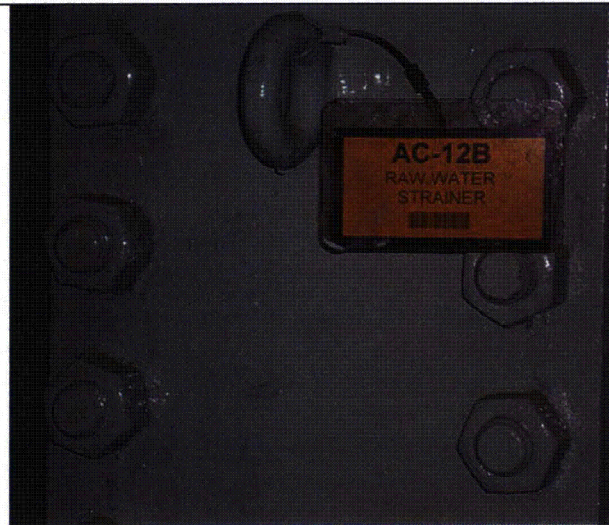
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 1

Equipment ID No. AC-12B Equip. Class⁴ 0, Other

Equipment Description Raw Water Strainer

Photographs



Note: *Equipment.*



Note: *Lack of anchor thread engagement.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 2

Equipment ID No. AC-12B-M Equip. Class¹ 0, Other

Equipment Description RAW WATER STRAINER AC-12B MOTOR

Location: Bldg. Intake Floor El. 999' Room, Area Intake Structure, 13W'BB-16N'104

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 2

Equipment ID No. AC-12B-M Equip. Class² 0, Other

Equipment Description RAW WATER STRAINER AC-12B MOTOR

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
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Not a soft target 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 2

Equipment ID No. AC-12B-M Equip. Class³ 0, Other

Equipment Description RAW WATER STRAINER AC-12B MOTOR

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: John Kao *John Kao* Date: 8/17/2012

Alex Smerch *Alex Smerch* 8/17/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

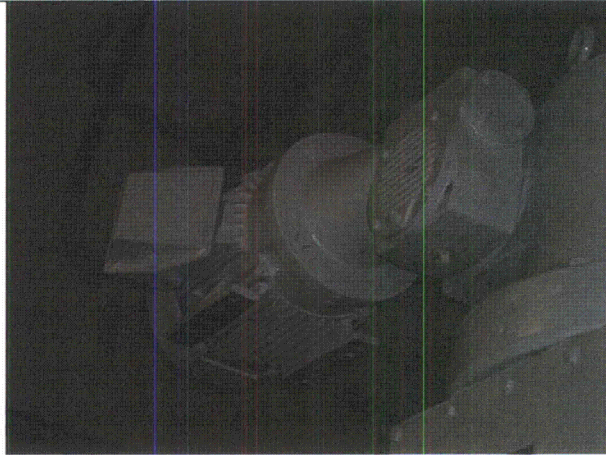
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 2

Equipment ID No. AC-12B-M Equip. Class⁴ 0, Other

Equipment Description RAW WATER STRAINER AC-12B MOTOR

Photographs



Note: *Equipment*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 3

Equipment ID No. YCV-871H Equip. Class¹ 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 ROOM FRESH AIR SUPPLY DAMPER

Location: Bldg. MISL Floor El. 1024' Room, Area MISL, 10W'K-11S'1A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 3

Equipment ID No. YCV-871H Equip. Class² 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 ROOM FRESH AIR SUPPLY DAMPER

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
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Damper is not a soft Target. 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?
No attached lines. 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 3

Equipment ID No. YCV-871H Equip. Class³ 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 ROOM FRESH AIR SUPPLY DAMPER

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: John Kao

John Kao

Date: 8/14/12

Alex Smerch

Alex Smerch

8/14/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

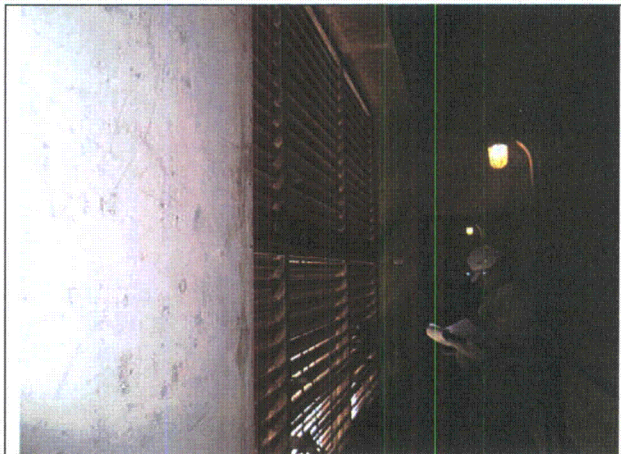
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 3

Equipment ID No. YCV-871H Equip. Class⁴ 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 ROOM FRESH AIR SUPPLY DAMPER

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 4

Equipment ID No. YCV-871H-20 Equip. Class¹ 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 FRESH AIR INTAKE DAMPER : SOLENOID

Location: Bldg. MISL Floor El. 1020' Room, Area MISL, 1W'K-11S'1A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 4

Equipment ID No. YCV-871H-20 Equip. Class² 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 FRESH AIR INTAKE DAMPER : SOLENOID

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 4

Equipment ID No. YCV-871H-20 Equip. Class³ 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 FRESH AIR INTAKE DAMPER : SOLENOID

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: John Kao Date: 8/14/12

Alex Smerch 8/14/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

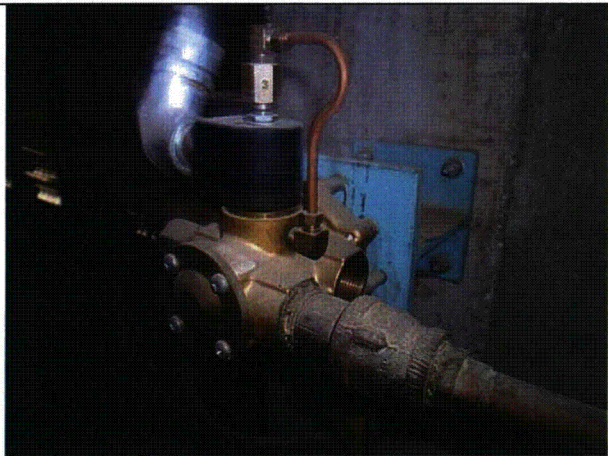
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 4

Equipment ID No. YCV-871H-20 Equip. Class⁴ 0, OTHER

Equipment Description DIESEL GENERATOR DG-1 FRESH AIR INTAKE DAMPER : SOLENOID

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 5

Equipment ID No. MCC-3B1-C2R Equip. Class¹ 1, MOTOR CONTROL CENTERS AND WALL-MOUNTED CONTACTORS

Equipment Description VA-64-EHTR CONTROL ROOM FILTER VA-64A INLET HEATER

Location: Bldg. AUX Floor El. 1013' Room, Area 57, MCC-3B1

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 5

Equipment ID No. MCC-3B1-C2R Equip. Class² 1, MOTOR CONTROL CENTERS AND WALL-MOUNTED CONTACTORS

Equipment Description VA-64-EHTR CONTROL ROOM FILTER VA-64A INLET HEATER

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 5

Equipment ID No. MCC-3B1-C2R Equip. Class³ 1, MOTOR CONTROL CENTERS AND WALL-MOUNTED CONTACTORS

Equipment Description VA-64-EHTR CONTROL ROOM FILTER VA-64A INLET HEATER

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: Alex Smerch *Alex Smerch*

Date: 8/16/2012

John Kao *John Kao*

8/16/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

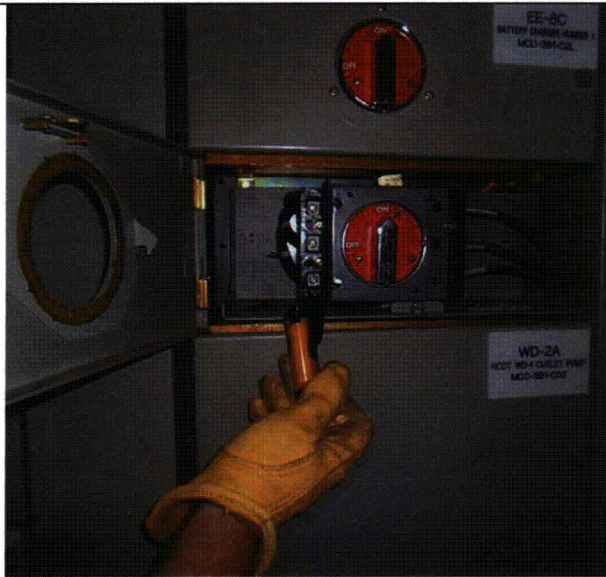
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 5

Equipment ID No. MCC-3B1-C2R Equip. Class⁴ 1, MOTOR CONTROL CENTERS AND WALL-MOUNTED CONTACTORS

Equipment Description VA-64-EHTR CONTROL ROOM FILTER VA-64A INLET HEATER

Photographs



Note: Equipment.

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 6

Equipment ID No. 1B3A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3A (EE-4F)

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 10WC-21N'5B

Manufacturer, Model, Etc. (optional but recommended) GE Type AKD-5

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 6

Equipment ID No. 1B3A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3A (EE-4F)

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

*The following items are not a seismic concern but were noted on the walkdowns:
Terminations 13, 14, 15 on 1B3A-101 (not coming in from side) see photo.
(B) Silver oxide outside cable connection missing (not part of contact surface) in 1B3A-103.
(A, B, C) Silver oxide outside cable connection missing (not part contact surface).*

SEISMIC WALKDOWN CHECKLIST FORM


Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 6

Equipment ID No. 1B3A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3A (EE-4F)

Evaluated by: Russ Placke  Date: 10/17/2012

Ashwin Patel  10/17/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

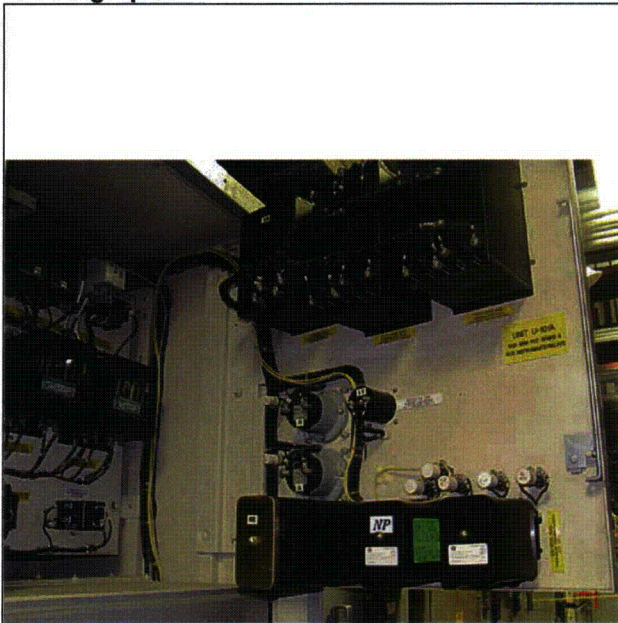
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 6

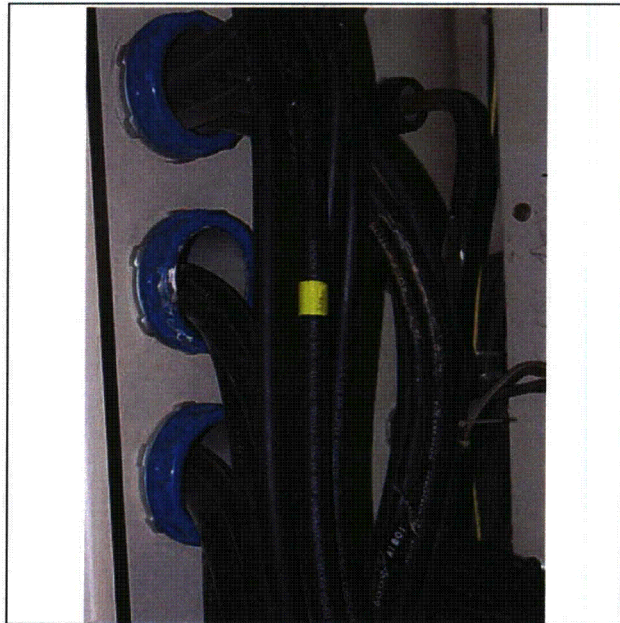
Equipment ID No. 1B3A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3A (EE-4F)

Photographs



Note: View of front panel on 1B3A-101.



Note: View showing wiring for terminations 13, 14 and 15 not coming in from the side on 1B3A-101.

SEISMIC WALKDOWN CHECKLIST FORM

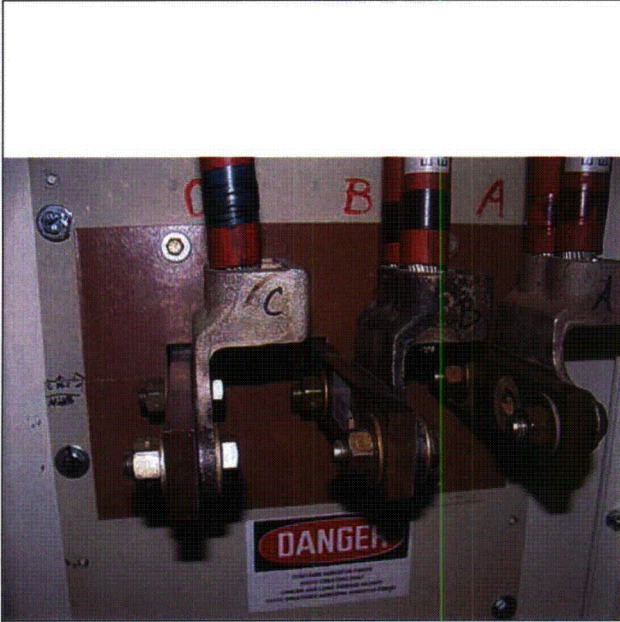
Sheet 5 of 5

Status: Y N U

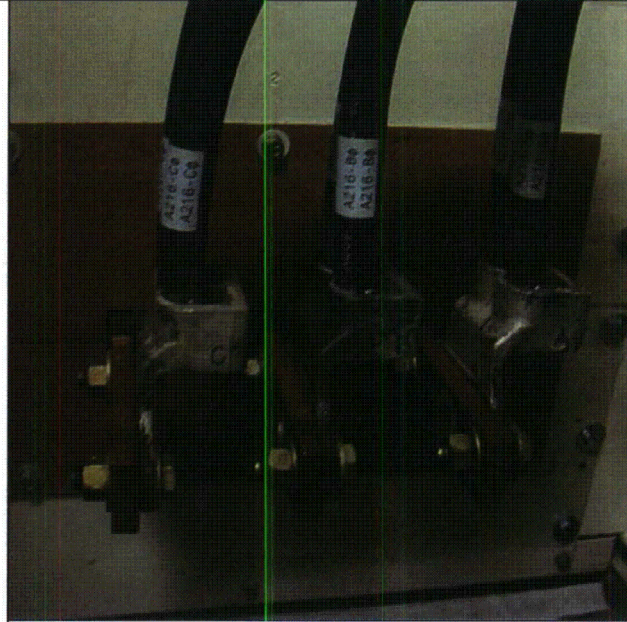
Seismic Walkdown Checklist (SWC) SWC- 6

Equipment ID No. 1B3A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3A (EE-4F)



Note: Silver oxide missing on B for panel 1B3A-103.



Note: Silver oxide missing on A, B, C for panel 1B3A-104.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 7

Equipment ID No. 1B3B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3B (EE-4H)

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 10WC'-9N'5B

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 7

Equipment ID No. 1B3B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3B (EE-4H)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 7

Equipment ID No. 1B3B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3B (EE-4H)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 7

Equipment ID No. 1B3B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3B (EE-4H)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 7

Equipment ID No. 1B3B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3B (EE-4H)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 8

Equipment ID No. 1B3C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3C (EE-4K)

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 10W'C-10N'4A

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 8

Equipment ID No. 1B3C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B3C (EE-4K)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 8

Equipment ID No. 1B3C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3C (EE-4K)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 8

Equipment ID No. 1B3C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3C (EE-4K)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 8

Equipment ID No. 1B3C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B3C (EE-4K)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 9

Equipment ID No. 1B4A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B4A (EE-4G)

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 10E'D-15S'6D

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 9

Equipment ID No. 1B4A Equip. Class¹ 2; LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B4A (EE-4G)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 9

Equipment ID No. 1B4A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4A (EE-4G)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 9

Equipment ID No. 1B4A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4A (EE-4G)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 9

Equipment ID No. 1B4A Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4A (EE-4G)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 10

Equipment ID No. 1B4B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B4B (EE-4J)

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 10E'D-12N'5B

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 10

Equipment ID No. 1B4B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4B (EE-4J)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 10

Equipment ID No. 1B4B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4B (EE-4J)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 10

Equipment ID No. 1B4B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4B (EE-4J)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 10

Equipment ID No. 1B4B Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4B (EE-4J)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 11

Equipment ID No. 1B4C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B4C (EE-4L)

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 15W/C-4N'4A

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 11

Equipment ID No. 1B4C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 480 VOLT BUS 1B4C (EE-4L)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 11

Equipment ID No. 1B4C Equip. Class¹ 2. LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4C (EE-4L)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 11

Equipment ID No. 1B4C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4C (EE-4L)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 11

Equipment ID No. 1B4C Equip. Class¹ 2, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 480 VOLT BUS 1B4C (EE-4L)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 12

Equipment ID No. 1A4-11 Equip. Class¹ 2. LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description BREAKER UNIT FEEDER FOR RAW WATER PUMP AC-10B

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 1A4

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 12

Equipment ID No. 1A4-11 Equip. Class 3

Equipment Description 4.16 KV FEEDER BREAKER TO AC-10B

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
-

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
*There are fluorescent light bulbs in hallways near equipment that are
not caged which could cause a potentially adverse seismic condition
with nearby equipment. CR 2012-10423 has been initiated.*
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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 12

Equipment ID No. 1A4-11 Equip. Class 3

Equipment Description 4.16 KV FEEDER BREAKER TO AC-10B

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: Alex Smerch  Date: 8/16/2012

John Kao  8/16/2012

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

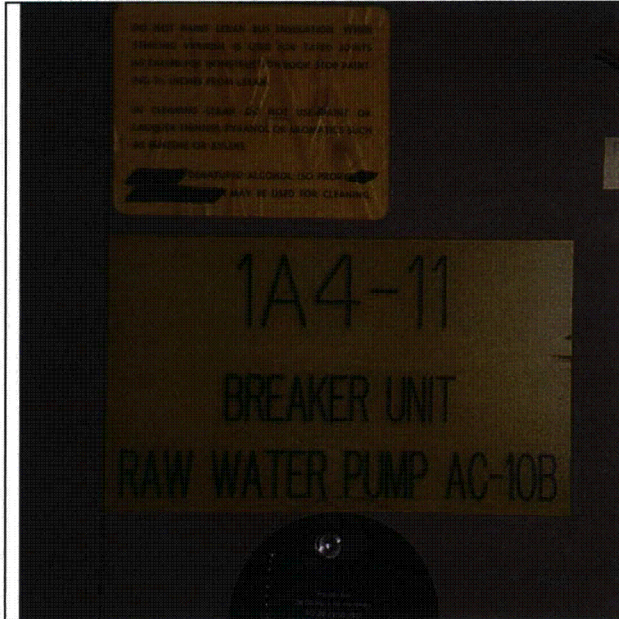
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 12

Equipment ID No. 1A4-11 Equip. Class 3

Equipment Description 4.16 KV FEEDER BREAKER TO AC-10B

Photographs



Note: *Equipment*



Note: *Fluorescent light bulbs posing potential seismic impact hazard.*

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 13

Equipment ID No. 1A3 Equip. Class¹ 3, MEDIUM VOLTAGE, METAL-CLAD SWITCHGEAR

Equipment Description 4.16KV BUS (EE-4C)

Location: Bldg. AUX Floor El. 1016' Room, Area 56, 11W'C-18N'1A

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? 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.)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 13

Equipment ID No. 1A3 Equip. Class¹ 3, MEDIUM VOLTAGE, METAL-CLAD SWITCHGEAR

Equipment Description 4.16KV BUS (EE-4C)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 13

Equipment ID No. 1A3 Equip. Class¹ 3, MEDIUM VOLTAGE, METAL-CLAD SWITCHGEAR

Equipment Description 4.16KV BUS (EE-4C)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 13

Equipment ID No. 1A3 Equip. Class¹ 3, MEDIUM VOLTAGE, METAL-CLAD SWITCHGEAR

Equipment Description 4.16KV BUS (EE-4C)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 13

Equipment ID No. 1A3 Equip. Class¹ 3, MEDIUM VOLTAGE, METAL-CLAD SWITCHGEAR

Equipment Description 4.16KV BUS (EE-4C)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 14

Equipment ID No. 1A4 Equip. Class¹ 3, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 4.16KV BUS (EE-4D)

Location: Bldg. AUX Floor El. 1016' Room, Area 56, 16WC-18N'1A

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 14

Equipment ID No. 1A4 Equip. Class¹ 3, LOW VOLTAGE SWITCHGEAR AND BREAKER PANELS

Equipment Description 4.16KV BUS (EE-4D)

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 14

Equipment ID No. 1A4 Equip. Class¹ 3, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 4.16KV BUS (EE-4D)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 14

Equipment ID No. 1A4 Equip. Class¹ 3, LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 4.16KV BUS (EE-4D)

Photographs

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 14

Equipment ID No. 1A4 Equip. Class¹ 3. LOW VOLTAGE SWITCHGEAR AND BREAKER
PANELS

Equipment Description 4.16KV BUS (EE-4D)

Note:	Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 15

Equipment ID No. EE-4S Equip. Class¹ 4, TRANSFORMERS

Equipment Description INVERTER #1, EE-8P BYPASS TRANSFORMER

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 0W'C-11N'6D

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 15

Equipment ID No. EE-4S Equip. Class² 4, TRANSFORMERS

Equipment Description INVERTER #1, EE-8P BYPASS TRANSFORMER

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.)
*No documentation identified. Anchor layout shown in sketches below.
Further license basis evaluation 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

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
*There are fluorescent lights located overhead nearby that are not caged
which could cause a potentially adverse seismic condition with nearby
equipment. CR 2012-10423 has been initiated.*
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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 15

Equipment ID No. EE-4S Equip. Class³ 4, TRANSFORMERS

Equipment Description INVERTER #1, EE-8P BYPASS TRANSFORMER

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: John Kao Date: 8/16/2012

Alex Smerch Alex Smerch 8/16/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 15

Equipment ID No. EE-4S Equip. Class⁴ 4, TRANSFORMERS

Equipment Description INVERTER #1, EE-8P BYPASS TRANSFORMER

Photographs

<p style="text-align: center;"><u>Plan</u></p> <p style="text-align: center;"><u>Elev.</u></p>	
<p>Note: Equipment is attached to two W6's, which are anchored to concrete wall</p>	<p>Note:</p>

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 16

Equipment ID No. T1B-3C Equip. Class¹ 4, TRANSFORMERS

Equipment Description 4160/480 TRANSFORMER BUS 1B3C

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 7W'C-17N'4A

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
The transformer is welded to embed channels.

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 16

Equipment ID No. T1B-3C Equip. Class² 4, TRANSFORMERS

Equipment Description 4160/480 TRANSFORMER BUS 1B3C

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.)
*The anchorage configuration is consistent with drawing A-5438 (File#
43610).* Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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 are fluorescent light bulbs in hallways near equipment that are
not caged which could cause a potentially adverse seismic condition
with nearby equipment. CR 2012-10423 has been initiated.* 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 16

Equipment ID No. T1B-3C Equip. Class³ 4, TRANSFORMERS

Equipment Description 4160/480 TRANSFORMER BUS 1B3C

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: John Kao

John Kao

Date: 8/16/2012

Alex Smerch

Alex Smerch

8/16/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

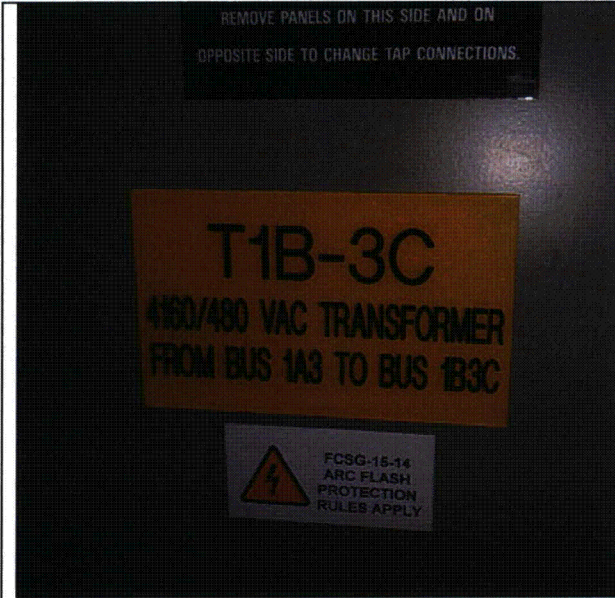
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 16

Equipment ID No. T1B-3C Equip. Class⁴ 4, TRANSFORMERS

Equipment Description 4160/480 TRANSFORMER BUS 1B3C

Photographs



Note: *Equipment.*



Note: *Overhead fluorescent bulbs with no cage.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 17

Equipment ID No. AC-3C Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

Location: Bldg. AUX Floor El. 1027' Room, Area 69, 1W'N-3N'8A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 17

Equipment ID No. AC-3C Equip. Class² 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

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.)
*The anchorage is consistent with drawing 11405-S-53, Rev. 6 (File#
16438).* Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 17

Equipment ID No. AC-3C Equip. Class³ 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

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: John Kao *John Kao* Date: 8/21/2012

Alex Smerch *Alex Smerch* 8/21/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 17

Equipment ID No. AC-3C Equip. Class⁴ 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

Photographs



Note: *Equipment*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 18

Equipment ID No. AC-3B Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

Location: Bldg. AUX 1027' Room, Area 69, 1W'N-4'S8A

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?
In-line valve. Y N U N/A

3. Is the anchorage free of corrosion that is more than mild surface oxidation?
In-line valve. Y N U N/A

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 18

Equipment ID No. AC-3B Equip. Class² 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

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.)
In-line valve. Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 18

Equipment ID No. AC-3B Equip. Class³ 5, HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

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: John Kao *John Kao* Date: 8/21/2012

Alex Smerch *Alex Smerch* 8/21/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

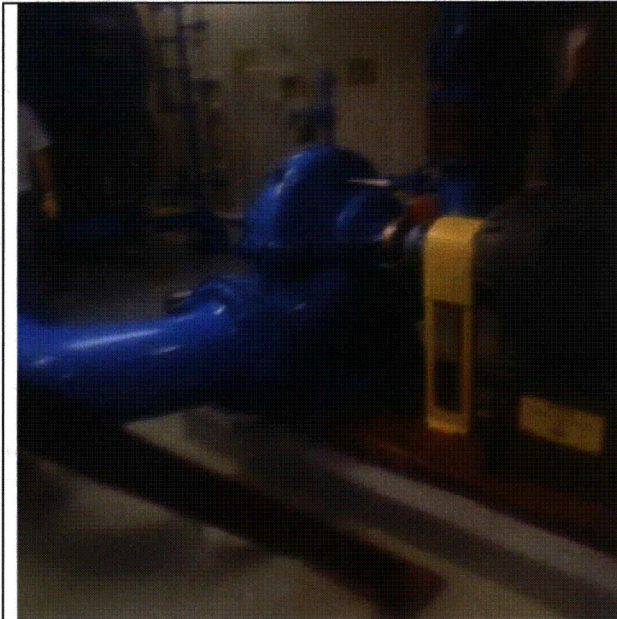
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 18

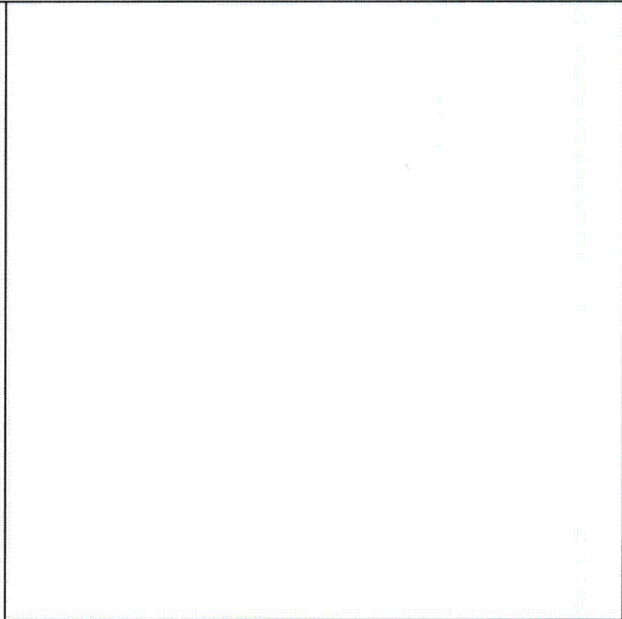
Equipment ID No. AC-3B Equip. Class⁴ 5. HORIZONTAL PUMPS

Equipment Description COMPONENT COOLING WATER PUMP

Photographs



Note: *Equipment*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 19

Equipment ID No. CH-1A Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description CHARGING PUMP

Location: Bldg. AUX Floor El. 991' Room, Area 6, 5E'U-4N'6E

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 19

Equipment ID No. CH-1A Equip. Class² 5, HORIZONTAL PUMPS

Equipment Description CHARGING PUMP

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 anchorage configuration is consistent with drawing 11405-S-48, Rev. 7 (File# 16433) and 11405-S-69, Rev. 5 (File# 16454).
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 19

Equipment ID No. CH-1A Equip. Class³ 5, HORIZONTAL PUMPS

Equipment Description CHARGING PUMP

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: John Kao *John Kao* Date: 8/20/12

Alex Smerch *Alex Smerch* 8/20/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 19

Equipment ID No. CH-1A Equip. Class⁴ 5, HORIZONTAL PUMPS

Equipment Description CHARGING PUMP

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 20

Equipment ID No. FO-17-2 Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description DIESEL GENERATOR DG-2 DC MOTOR DRIVEN FUEL OIL BOOSTER PUMP

Location: Bldg. AUX Floor El. 1010' Room, Area 64, 20W'F-22N'1A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 20

Equipment ID No. FO-17-2 Equip. Class² 5, HORIZONTAL PUMPS

Equipment Description DIESEL GENERATOR DG-2 DC MOTOR DRIVEN FUEL OIL BOOSTER PUMP

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
-

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) - SWC- 20

Equipment ID No. FO-17-2 Equip. Class³ 5, HORIZONTAL PUMPS

Equipment Description DIESEL GENERATOR DG-2 DC MOTOR DRIVEN FUEL OIL BOOSTER PUMP

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: Alex Smerch *Alex Smerch* Date: 8/15/2012

John Kao *John Kao* 8/15/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

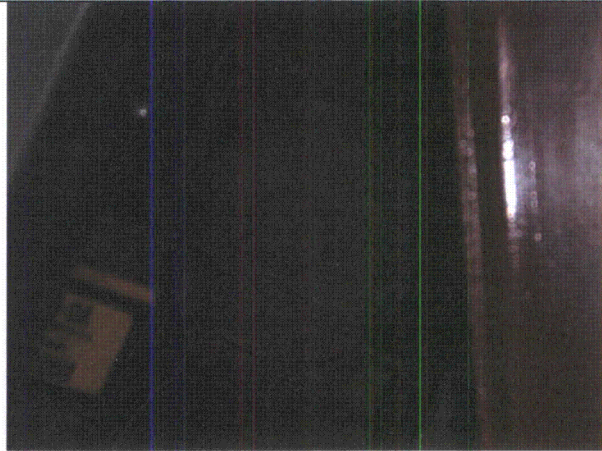
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 20

Equipment ID No. FO-17-2 Equip. Class⁴ 5, HORIZONTAL PUMPS

Equipment Description DIESEL GENERATOR DG-2 DC MOTOR DRIVEN FUEL OIL BOOSTER PUMP

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 21

Equipment ID No. FO-4A-2 Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description D2 FUEL OIL TRANSFER PUMP #1

Location: Bldg. AUX Floor El. 1012' Room, Area 64, 3W'K-6S'2B

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 21

Equipment ID No. FO-4A-2 Equip. Class² 5, HORIZONTAL PUMPS

Equipment Description D2 FUEL OIL TRANSFER PUMP #1

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 anchorage configuration is consistent with drawing 303.18-IC-01, Rev. 2 (File# 55108).
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N 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
Fan overhead possibly missing tie down clips. Could be out of licensing basis or may not require all clips to be attached. CR 2012-10367 has been initiated.
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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 21

Equipment ID No. FO-4A-2 Equip. Class³ 5, HORIZONTAL PUMPS

Equipment Description D2 FUEL OIL TRANSFER PUMP #1

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: John Kao Date: 8/15/12

Alex Smerch 8/15/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

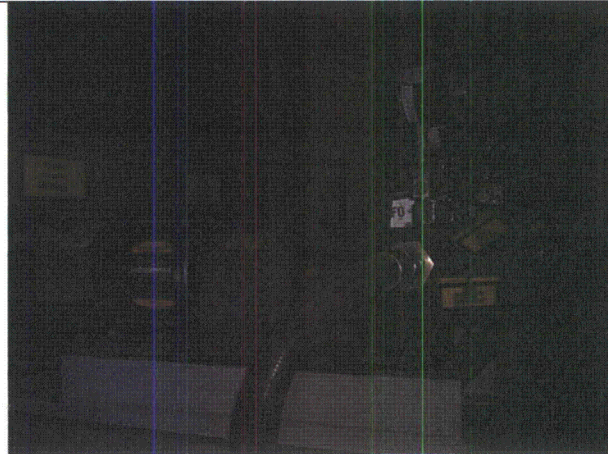
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 21

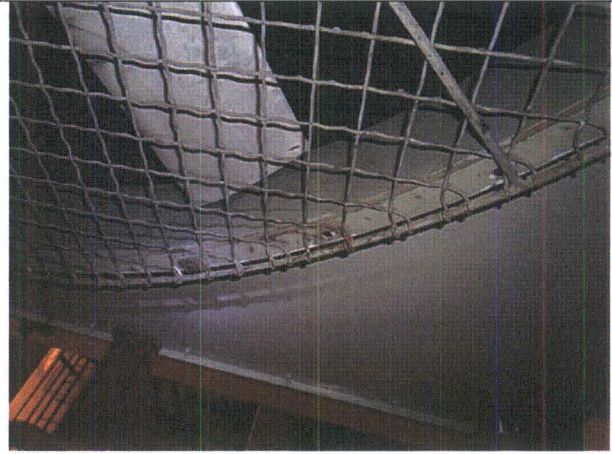
Equipment ID No. FO-4A-2 Equip. Class⁴ 5, HORIZONTAL PUMPS

Equipment Description D2 FUEL OIL TRANSFER PUMP #1

Photographs



Note: *Equipment.*



Note: *Fan shield above equipment with holes for additional bolts.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 22

Equipment ID No. FW-10 Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (TURBINE-DRIVEN)

Location: Bldg. AUX Floor El. 991' Room, Area 19, 3W/C-1N/3A

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

Instructions for Completing Checklist

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
One anchor was inspected to find that the nut was not flush with the baseplate, upon further inspection of the configuration drawings it was found that this anchor in question was not required, and was most likely just used for leveling for installation.

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 22

Equipment ID No. FW-10 Equip. Class² 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (TURBINE-DRIVEN)

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.)
*The anchorage configuration is consistent with drawing 11405-S-47,
Rev. 14 (File#16432) and 11405-S-69, Rev. 5 (File# 16454).* Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N U
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Pump not soft target. 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?
*Unistrut nearby appears to be missing clamp but its failure would not
damage pump as it is a non significant threat.* 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 22

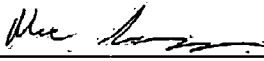
Equipment ID No. FW-10 Equip. Class³ 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (TURBINE-DRIVEN)

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
Nearby scaffolding anchored at only 1 point would be blocked by pipe supports if seismic motion occurred and would not contact pump.

Comments (Additional pages may be added as necessary)

Evaluated by: Alex Smerch 

Date: 8/13/12

John Kao 
John Kao

8/13/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

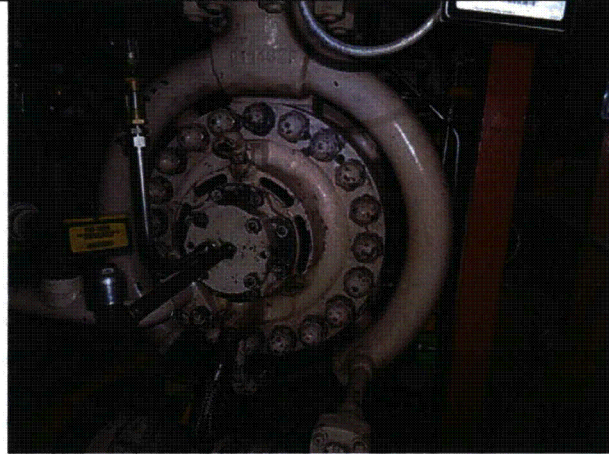
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 22

Equipment ID No. FW-10 Equip. Class⁴ 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (TURBINE-DRIVEN)

Photographs



Note: *Equipment.*



Note: *Anchorage showing bolts between skid and skid and foundation and pump and skid.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 23

Equipment ID No. FW-6 Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (MOTOR-DRIVEN)

Location: Bldg. AUX Floor El. 992' Room, Area 19, 4W/C-5S'4A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 23

Equipment ID No. FW-6 Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (MOTOR-DRIVEN)

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: _____ Date: _____

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 23

Equipment ID No. FW-6 Equip. Class¹ 5, HORIZONTAL PUMPS

Equipment Description AUXILIARY FEEDWATER PUMP (MOTOR-DRIVEN)

Photographs

Note:

Note:

Note:

Note:

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 24

Equipment ID No. AC-10B Equip. Class¹ 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

Location: Bldg. INTAKE Floor El. 994' Room, Area INTAKE, 1E'CC-1N'103

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
Welded.

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 24

Equipment ID No. AC-10B Equip. Class² 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 24

Equipment ID No. AC-10B Equip. Class³ 6. VERTICAL PUMPS

Equipment Description RAW WATER PUMP

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: Alex Smerch 

Date: 8/17/2012

John Kao 

8/17/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

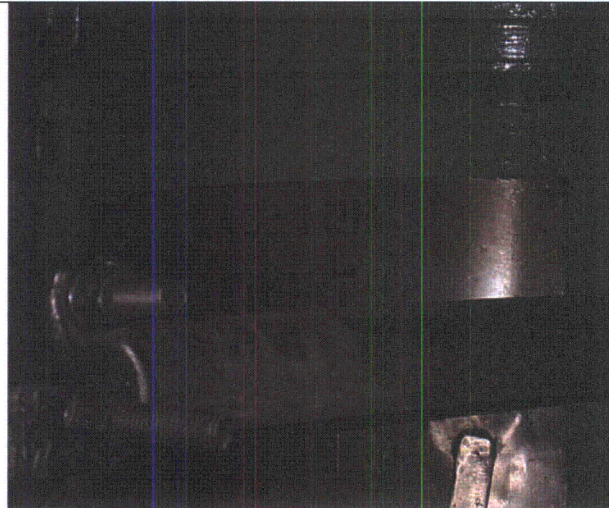
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 24

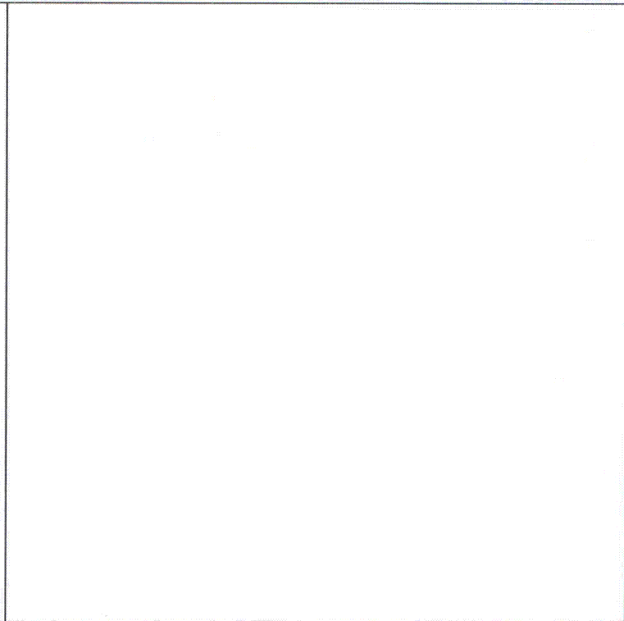
Equipment ID No. AC-10B Equip. Class⁴ 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

Photographs



Note: *Equipment*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 25

Equipment ID No. AC-10D Equip. Class¹ 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

Location: Bldg. INTAKE Floor El. 994' Room, Area INTAKE, 1E'CC-1N'104

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
Welded.

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 25

Equipment ID No. AC-10D Equip. Class² 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 25

Equipment ID No. AC-10D Equip. Class³ 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

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: Alex Smerch  Date: 8/17/2012

John Kao  8/17/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

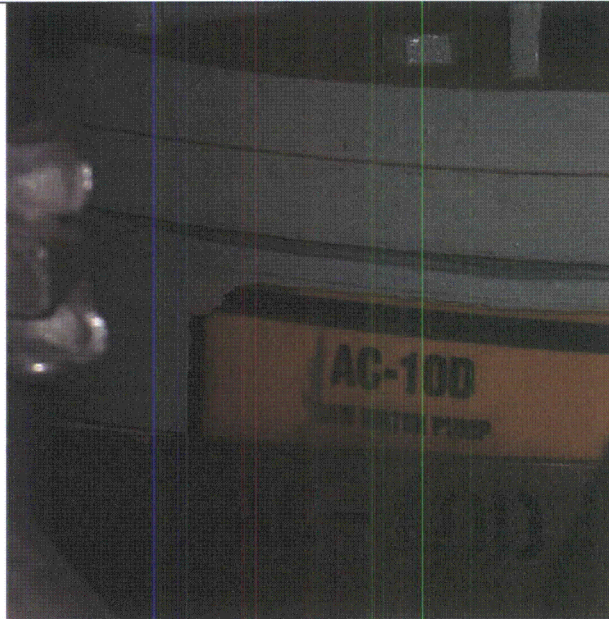
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 25

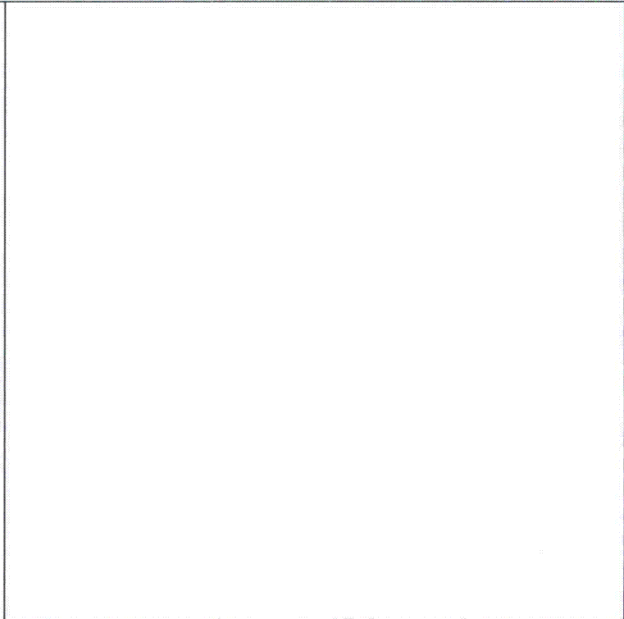
Equipment ID No. AC-10D Equip. Class⁴ 6, VERTICAL PUMPS

Equipment Description RAW WATER PUMP

Photographs



Note: *Equipment*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 26

Equipment ID No. HCV-474 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SI-1A&B,2A,B&C/SI-3A-C BRG CLRS CCW INLET HEADER ISOLATION VALVE

Location: Bldg. AUX Floor El. 992' Room, Area 6, 9W'T-2N'6E

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 26

Equipment ID No. HCV-474 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description SI-1A&B,2A,B&C/SI-3A-C BRG CLRS CCW INLET HEADER ISOLATION VALVE

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 26

Equipment ID No. HCV-474 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SI-1A&B,2A,B&C/SI-3A-C BRG CLRS CCW INLET HEADER ISOLATION VALVE

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: John Kao *John Kao* Date: 8/20/2012

Alex Smerch *Alex Smerch* 8/20/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 26

Equipment ID No. HCV-474 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SI-1A&B,2A,B&C/SI-3A-C BRG CLRS CCW INLET HEADER ISOLATION VALVE

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 91

Equipment ID No. HCV-478 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SPENT FUEL POOL HT EXCH AC-8 CCW OUTLET VALVE

Location: Bldg. AUX Floor El. 993' Room, Area 5, 6W'R-8N'5A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 91

Equipment ID No. HCV-478 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description SPENT FUEL POOL HT EXCH AC-8 CCW OUTLET VALVE

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 potentially adverse seismic conditions? Y N U
In-line

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 91

Equipment ID No. HCV-478 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SPENT FUEL POOL HT EXCH AC-8 CCW OUTLET VALVE

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: John Kao *John Kao* Date: 8/20/2012

Alex Smerch *Alex Smerch* 8/20/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 91

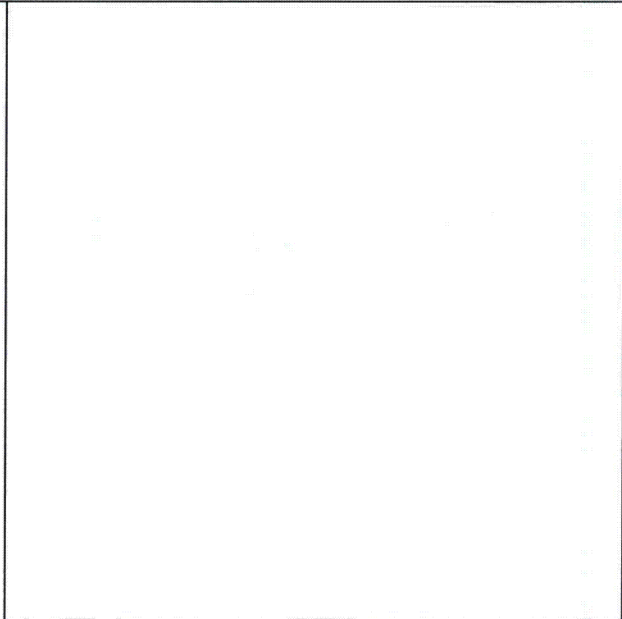
Equipment ID No. HCV-478 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SPENT FUEL POOL HT EXCH AC-8 CCW OUTLET VALVE

Photographs



Note: *Equipment*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 28

Equipment ID No. HCV-489B Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A CCW OUTLET VALVE

Location: Bldg. AUX Floor El. 992' Room, Area 4, 10W'D-1N'6D

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 28

Equipment ID No. HCV-489B Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A CCW OUTLET VALVE

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 potentially adverse seismic conditions? Y N U
In-line valve

Interaction Effects

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

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 28

Equipment ID No. HCV-489B Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A CCW OUTLET VALVE

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: John Kao *John Kao* Date: 8/20/2012

Alex Smerch *Alex Smerch* 8/20/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

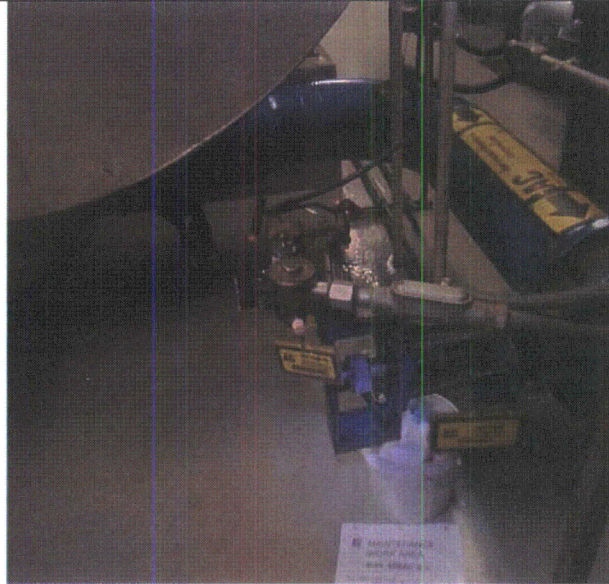
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 28

Equipment ID No. HCV-489B Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A CCW OUTLET VALVE

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 29

Equipment ID No. HCV-497 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D CCW BYPASS LINE ISOLATION VALVE

Location: Bldg. AUX Floor El. 991' Room, Area 4, 2E'E-8S'7A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 29

Equipment ID No. HCV-497 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D CCW BYPASS LINE ISOLATION VALVE

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?
In-line valve. Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 29

Equipment ID No. HCV-497 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D CCW BYPASS LINE ISOLATION VALVE

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: John Kao *John Kao* Date: 8/20/2012

Alex Smerch *Alex Smerch* 8/20/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 29

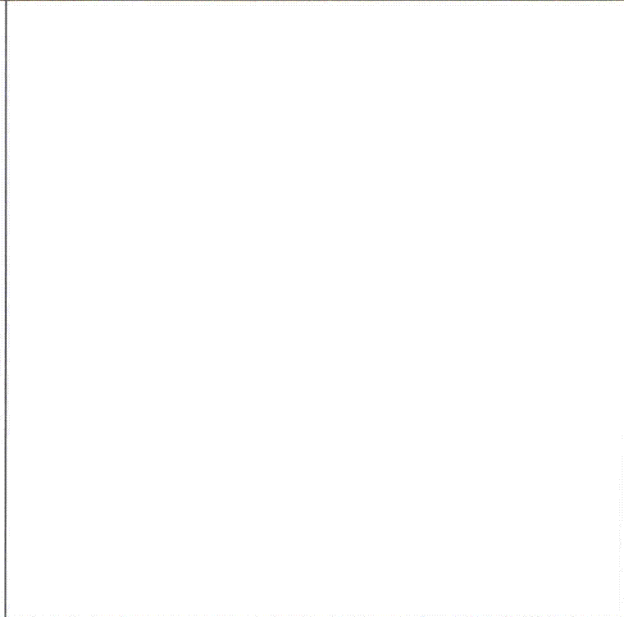
Equipment ID No. HCV-497 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D CCW BYPASS LINE ISOLATION VALVE

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 30

Equipment ID No. TCV-893 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description AIR CONDITIONER VA-46A CCW SUPPLY TEMPERATURE CONTROL VALVE

Location: Bldg. AUX Floor El. 1037' Room, Area 72, 8W'J1-12N'7A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 30

Equipment ID No. TCV-893 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description AIR CONDITIONER VA-46A CCW SUPPLY TEMPERATURE CONTROL VALVE

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?
In-line valve Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 30

Equipment ID No. TCV-893 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description AIR CONDITIONER VA-46A CCW SUPPLY TEMPERATURE CONTROL VALVE

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: John Kao *John Kao* Date: 8/18/2012

Alex Smerch *Alex Smerch* 8/18/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

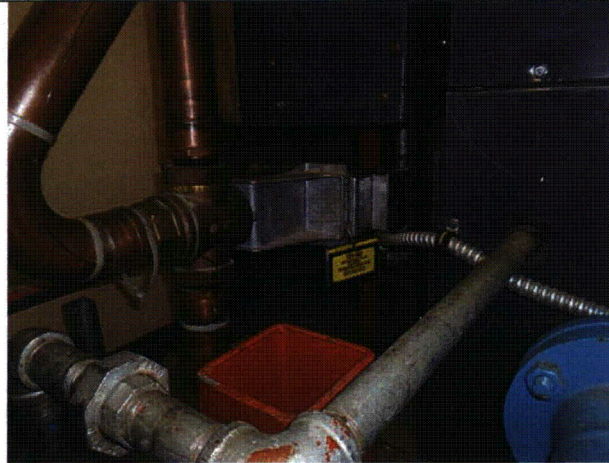
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 30

Equipment ID No. TCV-893 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description AIR CONDITIONER VA-46A CCW SUPPLY TEMPERATURE CONTROL VALVE

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 31

Equipment ID No. HCV-2874A Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

Location: Bldg. INTAKE Floor El. 1001' Room, Area INTAKE, 6E'CC-4S'103

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?
In-line valve. Y N U N/A

3. Is the anchorage free of corrosion that is more than mild surface oxidation?
In-line valve. Y N U N/A

4. Is the anchorage free of visible cracks in the concrete near the anchors?
In-line valve. Y N U N/A

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 31

Equipment ID No. HCV-2874A Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

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 potentially adverse seismic conditions? Y N U
N/A In line valve

Interaction Effects

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

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 31

Equipment ID No. HCV-2874A Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

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: Alex Smerch *Alex Smerch* Date: 8/17/2012

John Kao *John Kao* 8/17/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

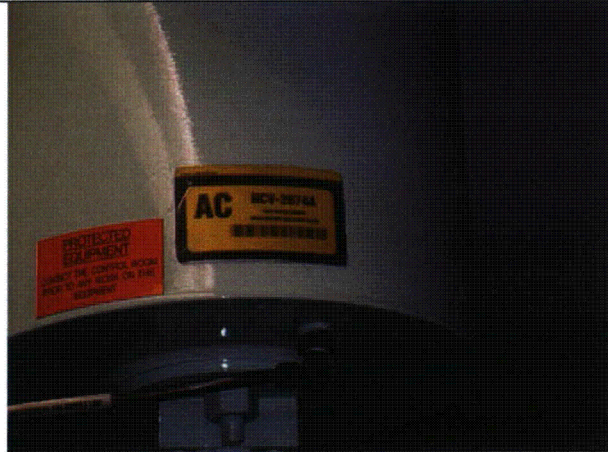
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 31

Equipment ID No. HCV-2874A Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 32

Equipment ID No. HCV-2875A Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

Location: Bldg. INTAKE Floor El. 1001 Room, Area INTAKE, 6E'CC-7N'103

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
In-line valve.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
In-line valve.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
In-line valve.

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 32

Equipment ID No. HCV-2875A Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

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.)
In-line valve. Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 32

Equipment ID No. HCV-2875A Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

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: Alex Smerch *Alex Smerch* Date: 8/17/2012

John Kao *John Kao* 8/17/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 32

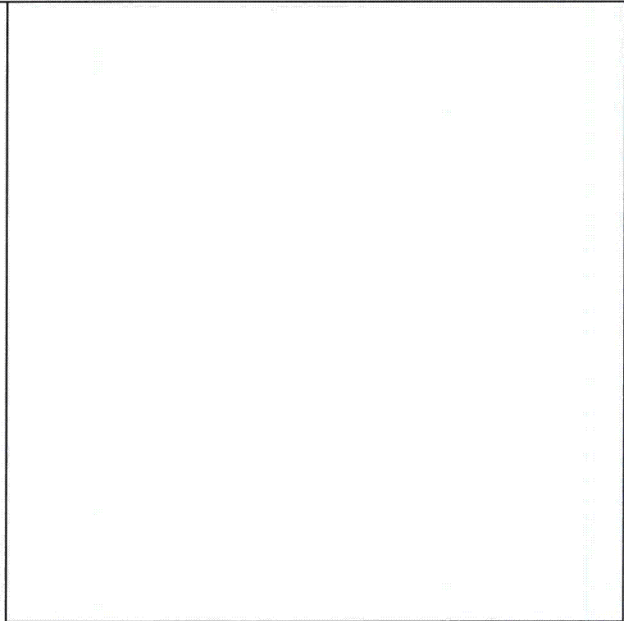
Equipment ID No. HCV-2875A Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER PUMPS DISCH HEADER ISOLATION VALVE

Photographs



Note: *Equipment Tag.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 33

Equipment ID No. HCV-2877A Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D RAW WATER INLET HDR ISOLATION VALVE

Location: Bldg. AUX 993' Room, Area 18, 13E'D-12S'6D

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
In-line valve.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
In-line valve.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
In-line valve.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
In-line valve.

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 33

Equipment ID No. HCV-2877A Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D RAW WATER INLET HDR ISOLATION VALVE

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.)
In-line valve. Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 33

Equipment ID No. HCV-2877A Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D RAW WATER INLET HDR ISOLATION VALVE

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: Alex Smerch *Alex Smerch* Date: 8/21/2012

John Kao *John Kao* 8/21/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

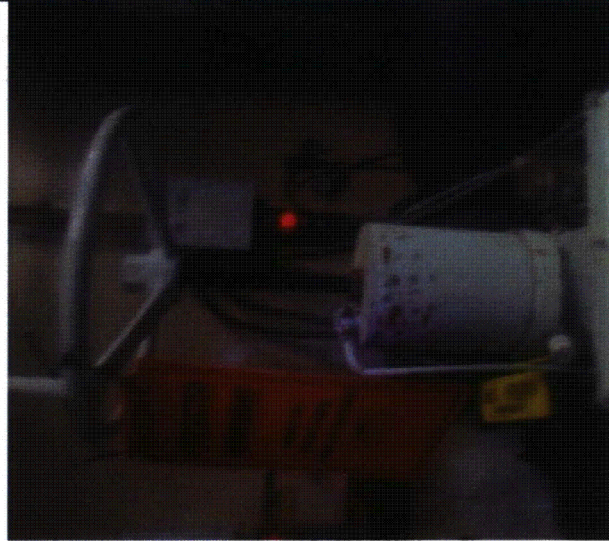
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 33

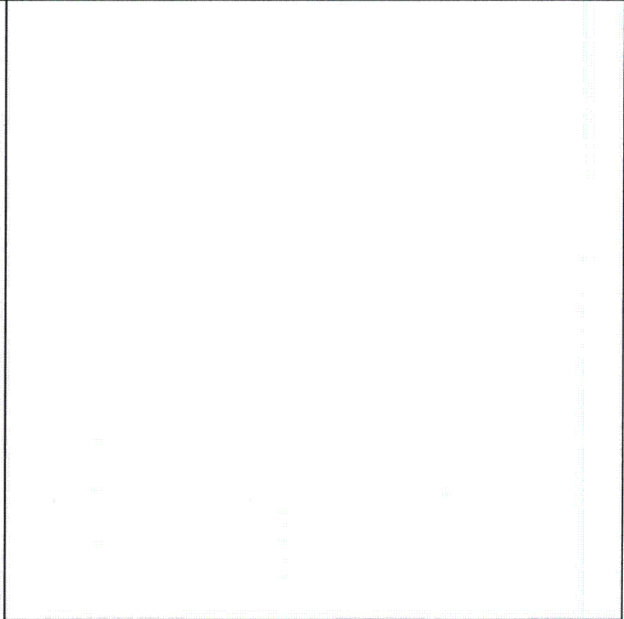
Equipment ID No. HCV-2877A Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP CLG HT EXCHS AC-1A-D RAW WATER INLET HDR ISOLATION VALVE

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 34

Equipment ID No. HCV-2880A Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A RAW WATER INLET VALVE

Location: Bldg. AUX 994' Room, Area 18, 13E'D-6S'6D

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
In-line valve.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
In-line valve.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
In-line valve.

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 34

Equipment ID No. HCV-2880A Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A RAW WATER INLET VALVE

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
In-line valve.
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N U
In-line valve.
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting,
and masonry block walls not likely to collapse onto the equipment? Y N U N/A
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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 34

Equipment ID No. HCV-2880A Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A RAW WATER INLET VALVE

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: Alex Smerch *Alex Smerch* Date: 8/21/2012

John Kao *John Kao* 8/21/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

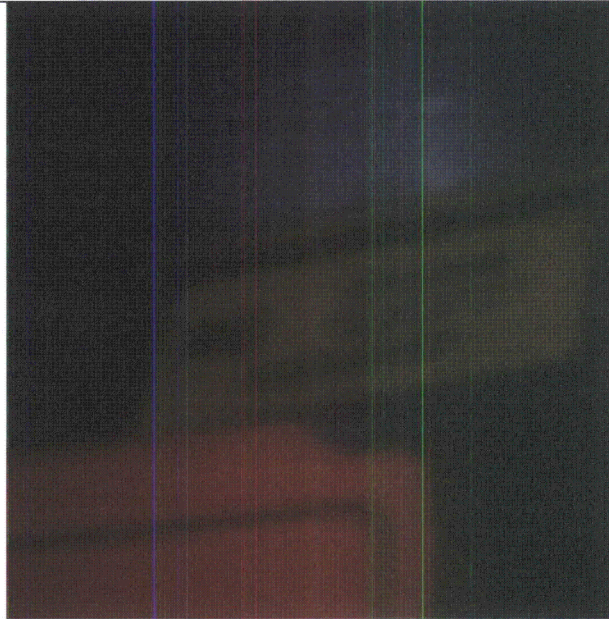
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 34

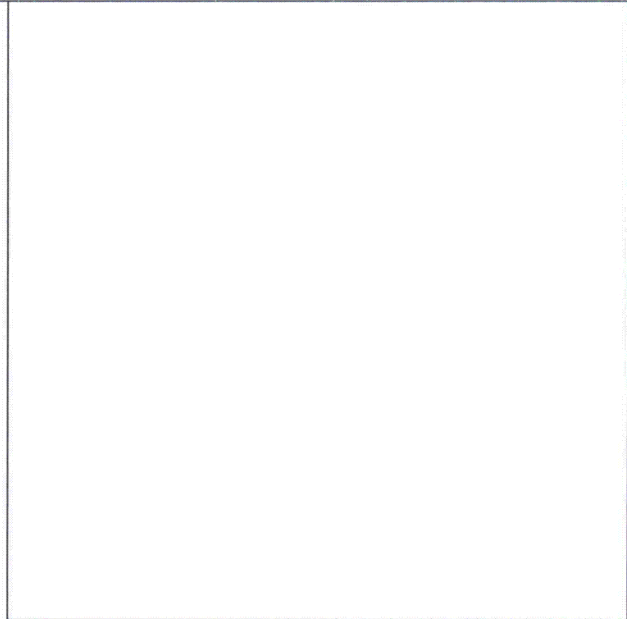
Equipment ID No. HCV-2880A Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description COMP COOLING HT EXCH AC-1A RAW WATER INLET VALVE

Photographs



Note: *Equipment Tag*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 35

Equipment ID No. HCV-2893 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER TO CCW ISOLATION VALVE

Location: Bldg. AUX 993' Room, Area 18, 13E'D-19S'6D

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 35

Equipment ID No. HCV-2893 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER TO CCW ISOLATION VALVE

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
In-line valve

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Not a soft target 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 35

Equipment ID No. HCV-2893 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER TO CCW ISOLATION VALVE

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: Alex Smerch *Alex Smerch* Date: 8/21/2012

John Kao *John Kao* 8/21/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

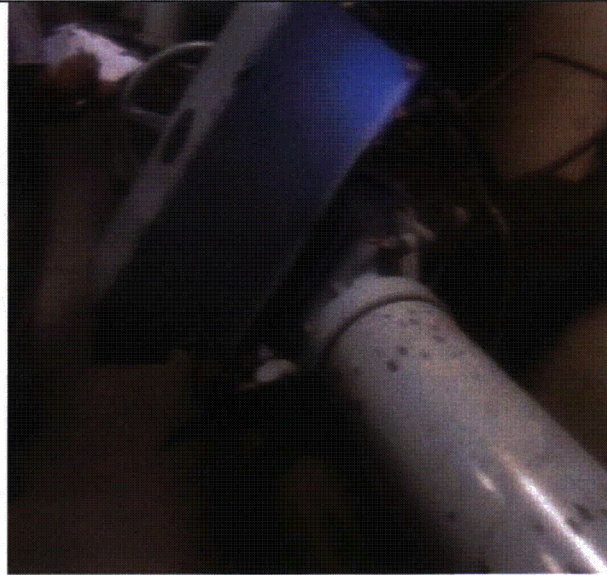
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 35

Equipment ID No. HCV-2893 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description RAW WATER TO CCW ISOLATION VALVE

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 36

Equipment ID No. HCV-240 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description PRESSURIZER RC-4 AUXILIARY SPRAY INLET VALVE

Location: Bldg. CONT Floor El. 1045' Room, Area CONT, 14W/DD-6N/II

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 36

Equipment ID No. HCV-240 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description PRESSURIZER RC-4 AUXILIARY SPRAY INLET VALVE

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?
In Line Valve Y N U

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Not a soft target 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 36

Equipment ID No. HCV-240 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description PRESSURIZER RC-4 AUXILIARY SPRAY INLET VALVE

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: John Kao *John Kao* Date: 8/22/12

Alex Smerch *Alex Smerch* 8/22/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 36

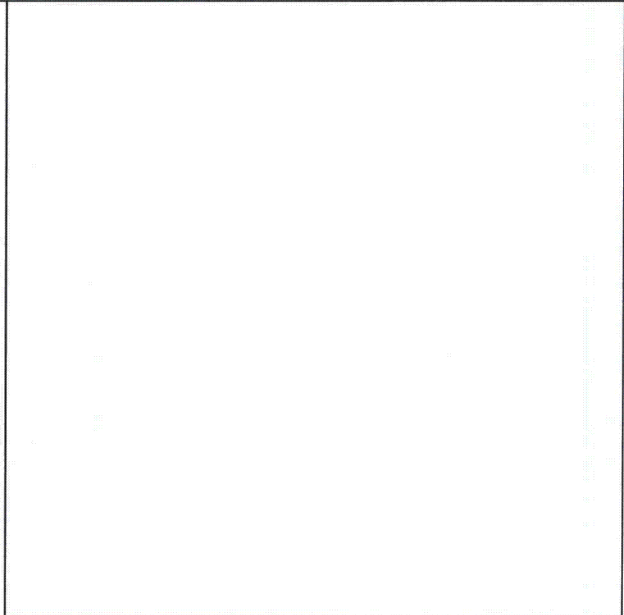
Equipment ID No. HCV-240 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description PRESSURIZER RC-4 AUXILIARY SPRAY INLET VALVE

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 37

Equipment ID No. LCV-218-3 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description CHRG PUMPS CH-1A,B&C SUCT HDR SAFETY INJ & BORIC ACID SUPPLY VLV

Location: Bldg. AUX Floor El. 992' Room, Area 7, 45W'T-2N'7B

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 37

Equipment ID No. LCV-218-3 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description CHRG PUMPS CH-1A,B&C SUCT HDR SAFETY INJ & BORIC ACID SUPPLY VLV

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.)
*Needs plant documentation to verify. See sketch in photos section.
Licensing Basis Evaluation 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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 37

Equipment ID No. LCV-218-3 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description CHRG PUMPS CH-1A,B&C SUCT HDR SAFETY INJ & BORIC ACID SUPPLY VLV

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: Alex Smerch  Date: 8/20/12

John Kao  8/20/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

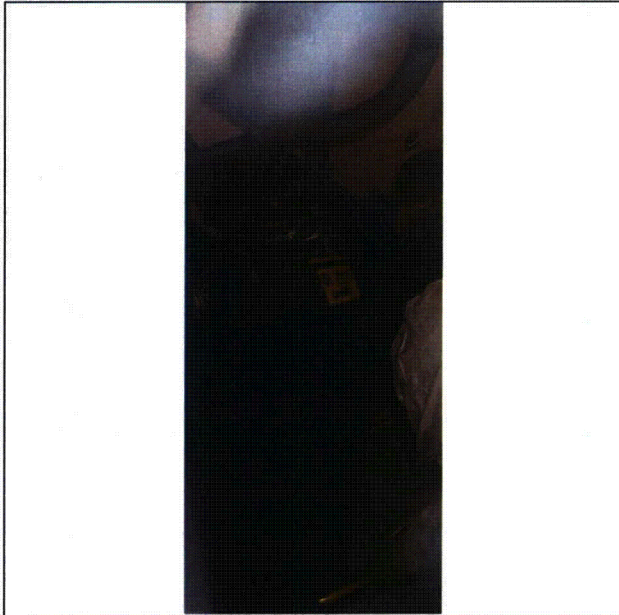
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 37

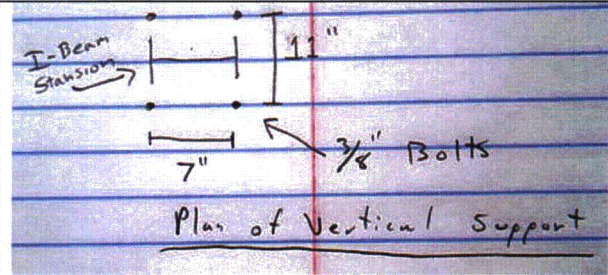
Equipment ID No. LCV-218-3 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description CHRG PUMPS CH-1A,B&C SUCT HDR SAFETY INJ & BORIC ACID SUPPLY VLV

Photographs



Note: *Equipment.*



Note: *Sketch of plan view of vertical I-beam support anchorage.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 38

Equipment ID No. FCV-1369 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description TURB-DRIVEN AUX FEED PUMP FW-10 RECIRCULATION VALVE

Location: Bldg. AUX Floor El. 991' Room, Area 19, 3W/C-7N/3AA

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 38

Equipment ID No. FCV-1369 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description TURB-DRIVEN AUX FEED PUMP FW-10 RECIRCULATION VALVE

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
N/A Inline Valve

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Valve is not a soft target. 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
*Unistrut above missing clamp and just resting on support. Could fall.
CR 2012-10198 has been initiated.*
9. Do attached lines have adequate flexibility to avoid damage?
There are multiple elbows for attached line showing flexibility. 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 38

Equipment ID No. FCV-1369 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description TURB-DRIVEN AUX FEED PUMP FW-10 RECIRCULATION VALVE

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

There is a chain attached. This item is not seen as a credible source as it does not have much mass.

Comments (Additional pages may be added as necessary)

Evaluated by: Alex Smerch *Alex Smerch* Date: 8/13/12

John Kao *John Kao* 8/13/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

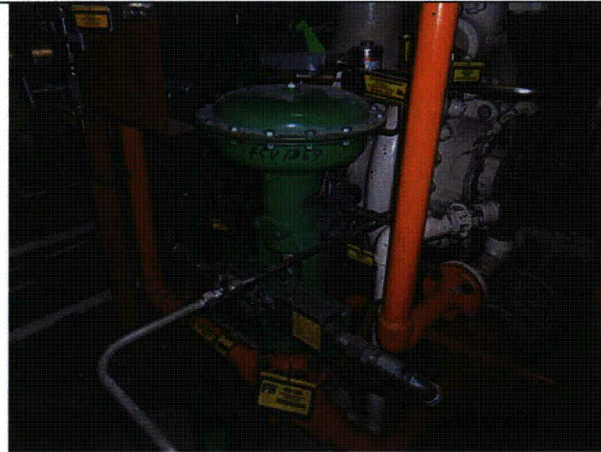
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 38

Equipment ID No. FCV-1369 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description TURB-DRIVEN AUX FEED PUMP FW-10 RECIRCULATION VALVE

Photographs



Note: *Equipment.*



Note: *Unistrut Missing Clamp.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 39

Equipment ID No. HCV-1107A Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

Location: Bldg. CONT Floor El. 1050' Room, Area CONT, 15W'BB-9N'II

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 39

Equipment ID No. HCV-1107A Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

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
-

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 39

Equipment ID No. HCV-1107A Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

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: John Kao *John Kao* Date: 8/22/2012

Alex Smerch *Alex Smerch* 8/22/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 39

Equipment ID No. HCV-1107A Equip. Class⁴ 7. PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

Photographs

<p>No photographs were able to be taken of the item.</p>	
<p>Note:</p>	<p>Note:</p>

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 40

Equipment ID No. HCV-1107B Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

Location: Bldg. AUX Floor El. 1038' Room, Area 81, 0W'H-4N'3A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 40

Equipment ID No. HCV-1107B Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

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.)
*Needs plant documentation to verify anchorage. See sketch in photos
section. Licensing Basis Evaluation 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
-

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 40

Equipment ID No. HCV-1107B Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

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: Alex Smerch *Alex Smerch* Date: 8/18/2012

John Kao *John Kao* 8/18/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

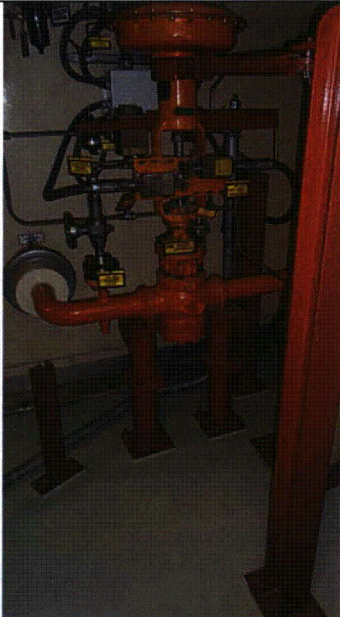
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 40

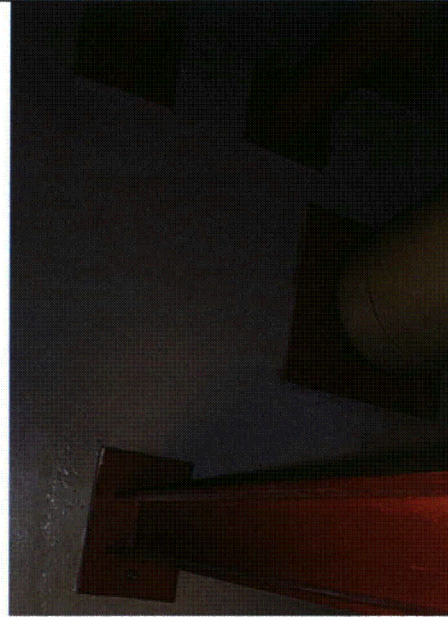
Equipment ID No. HCV-1107B Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE

Photographs



Note: *Equipment and supports.*



Note: *Equipment support footprint.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

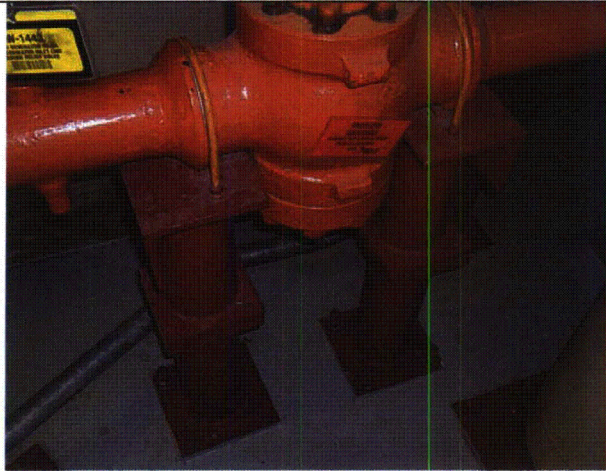
Sheet 5 of 5

Status: Y N U

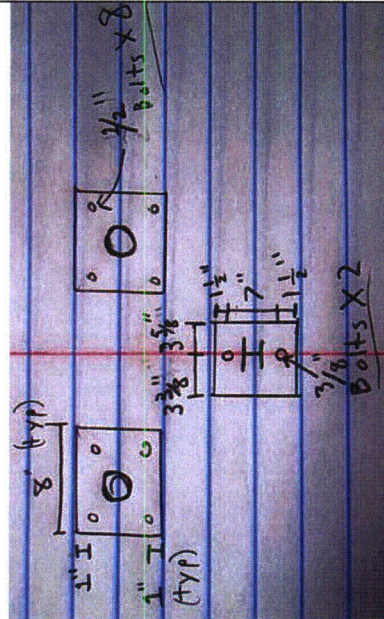
Seismic Walkdown Checklist (SWC) SWC- 40

Equipment ID No. HCV-1107B Equip. Class⁵ 7, PNEUMATIC-OPERATED VALVES

Equipment Description STEAM GENERATOR RC-2A AUXILIARY FEEDWATER INLET VALVE



Note: Vertical Support Footprint.



Note: Plan view of 3 support footings anchorage sketch.

⁵ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 41

Equipment ID No. HCV-1384 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description MAIN AND AUXILIARY FEEDWATER CROSSCONNECT VALVE

Location: Bldg. AUX Floor El. 1039' Room, Area 81, 22E'D-21N'5B

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 41

Equipment ID No. HCV-1384 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description MAIN AND AUXILIARY FEEDWATER CROSSCONNECT VALVE

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
In-line valve

Interaction Effects

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

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 41

Equipment ID No. HCV-1384 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description MAIN AND AUXILIARY FEEDWATER CROSSCONNECT VALVE

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: John Kao *John Kao* Date: 8/18/2012

Alex Smerch *Alex Smerch* 8/18/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

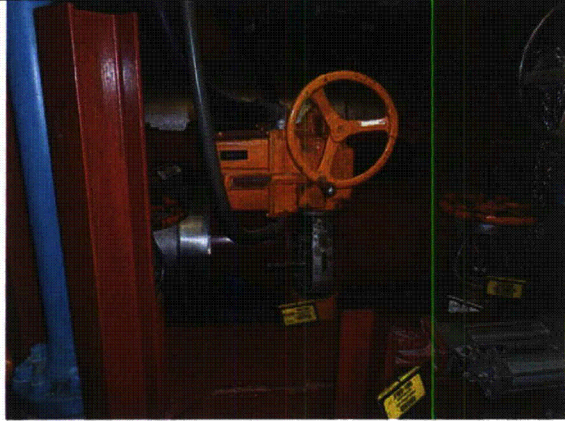
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 41

Equipment ID No. HCV-1384 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description MAIN AND AUXILIARY FEEDWATER CROSSCONNECT VALVE

Photographs



Note: *Equipment*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 42

Equipment ID No. SA-193 Equip. Class¹ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SECONDARY STARTING AIR PRESSURE REGULATION VALVE

Location: Bldg. AUX Floor El. 1008' Room, Area 64, 3W'F-28N'1A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 42

Equipment ID No. SA-193 Equip. Class² 7, PNEUMATIC-OPERATED VALVES

Equipment Description SECONDARY STARTING AIR PRESSURE REGULATION VALVE

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
N/A, In-line valve

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting,
and masonry block walls not likely to collapse onto the equipment? Y N U N/A
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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 42

Equipment ID No. SA-193 Equip. Class³ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SECONDARY STARTING AIR PRESSURE REGULATION VALVE

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: Alex Smerch  Date: 8/15/2012

John Kao  8/15/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

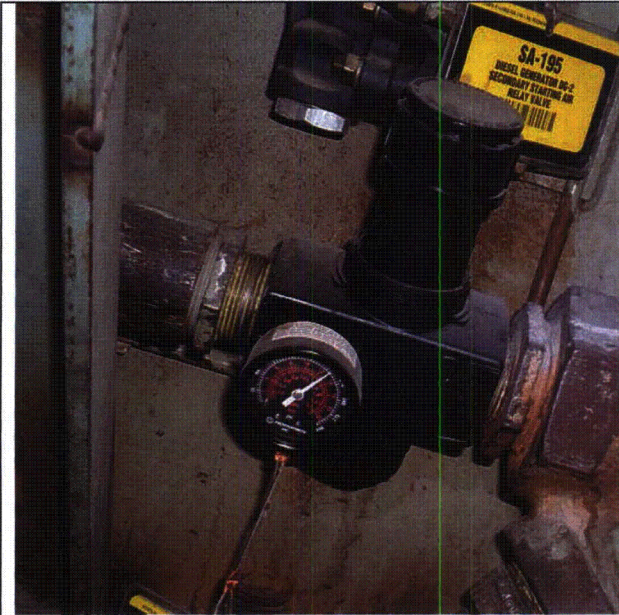
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 42

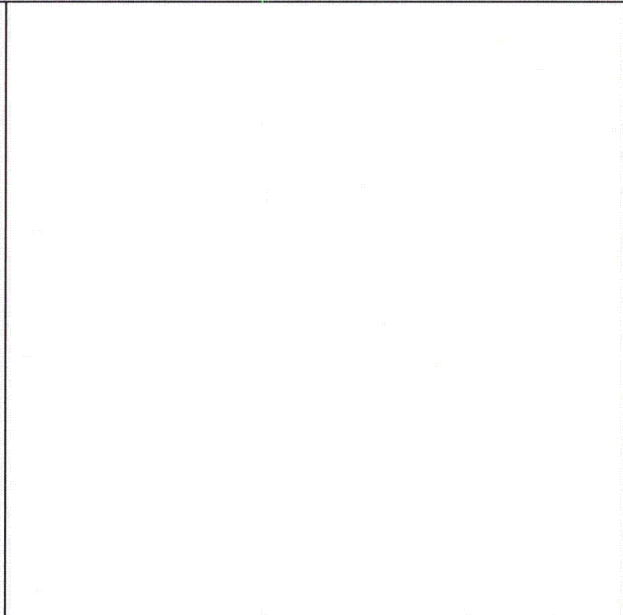
Equipment ID No. SA-193 Equip. Class⁴ 7, PNEUMATIC-OPERATED VALVES

Equipment Description SECONDARY STARTING AIR PRESSURE REGULATION VALVE

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 43

Equipment ID No. VA-15B Equip. Class¹ 10, AIR HANDLERS

Equipment Description CONTAINMENT AIR COOL/FILTER UNIT B HOUSING

Location: Bldg. CONT Floor El. 1060' Room, Area CONT, 0W'BB-24N'III

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 43

Equipment ID No. VA-15B Equip. Class² 10, AIR HANDLERS

Equipment Description CONTAINMENT AIR COOL/FILTER UNIT B HOUSING

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
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Large metal housing structure. 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?
Adequately supported polar crane overhead. 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 43

Equipment ID No. VA-15B Equip. Class³ 10, AIR HANDLERS

Equipment Description CONTAINMENT AIR COOL/FILTER UNIT B HOUSING

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: Alex Smerch *Alex Smerch* Date: 8/27/12

Kevin Bessell *Kevin Bessell* 8/27/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 43

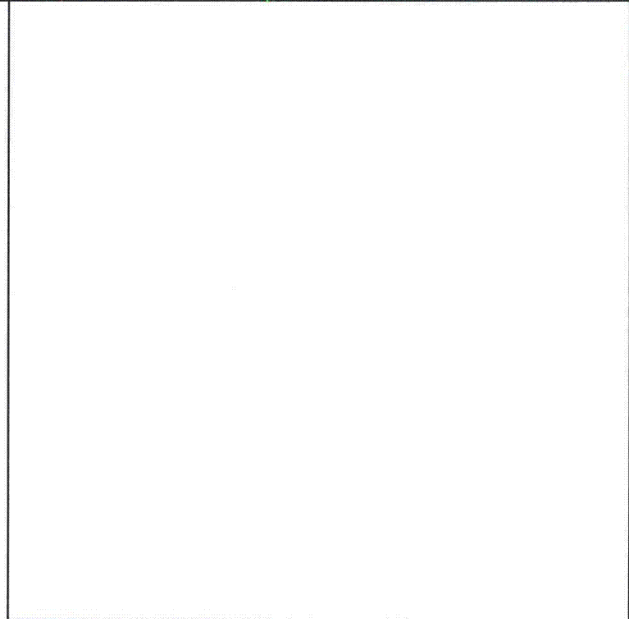
Equipment ID No. VA-15B Equip. Class⁴ 10, AIR HANDLERS

Equipment Description CONTAINMENT AIR COOL/FILTER UNIT B HOUSING

Photographs



Note: *Equipment (large housing).*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 44

Equipment ID No. VA-46A Equip. Class¹ 10, AIR HANDLERS

Equipment Description CONTROL ROOM AIR CONDITIONING UNIT

Location: Bldg. AUX Floor El. 1036 Room, Area 72, 8W'J1-12N'7A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 44

Equipment ID No. VA-46A Equip. Class² 10, AIR HANDLERS

Equipment Description CONTROL ROOM AIR CONDITIONING UNIT

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
-

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 44

Equipment ID No. VA-46A Equip. Class³ 10, AIR HANDLERS

Equipment Description CONTROL ROOM AIR CONDITIONING UNIT

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: John Kao *John Kao*

Date: 8/21/2012

Alex Smerch *Alex Smerch*

8/21/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 44

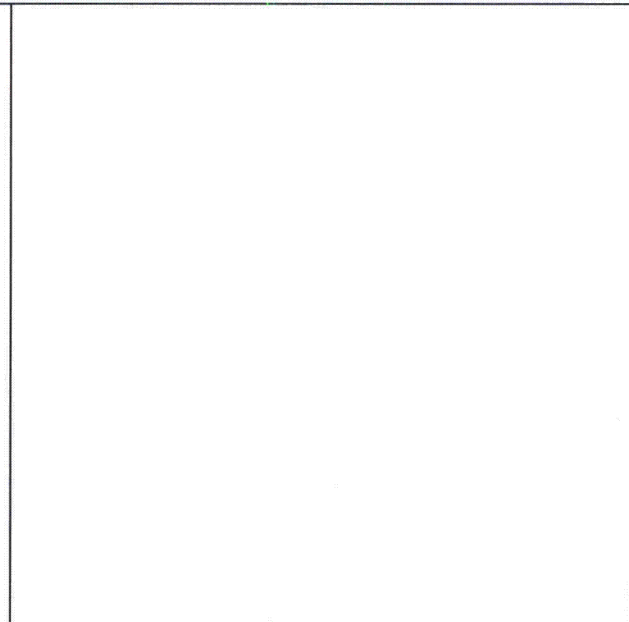
Equipment ID No. VA-46A Equip. Class⁴ 10, AIR HANDLERS

Equipment Description CONTROL ROOM AIR CONDITIONING UNIT

Photographs



Note: *Equipment Tag.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 45

Equipment ID No. DC-BUS-AI-41A Equip. Class¹ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description PANEL BOARD

Location: Bldg. AUX Floor El. 1036' Room, Area 77, AI-41A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 45

Equipment ID No. DC-BUS-AI-41A Equip. Class² 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description PANEL BOARD

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
-

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 45

Equipment ID No. DC-BUS-AI-41A Equip. Class³ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description PANEL BOARD

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: John Kao *John Kao* Date: 8/18/2012

Alex Smerch *Alex Smerch* 8/18/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

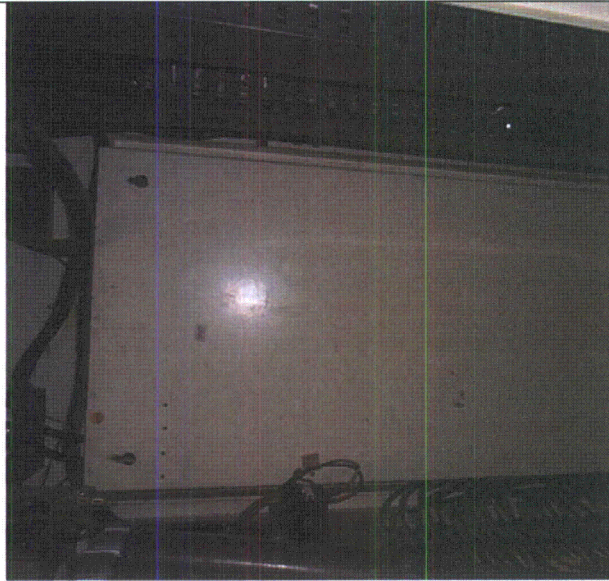
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 45

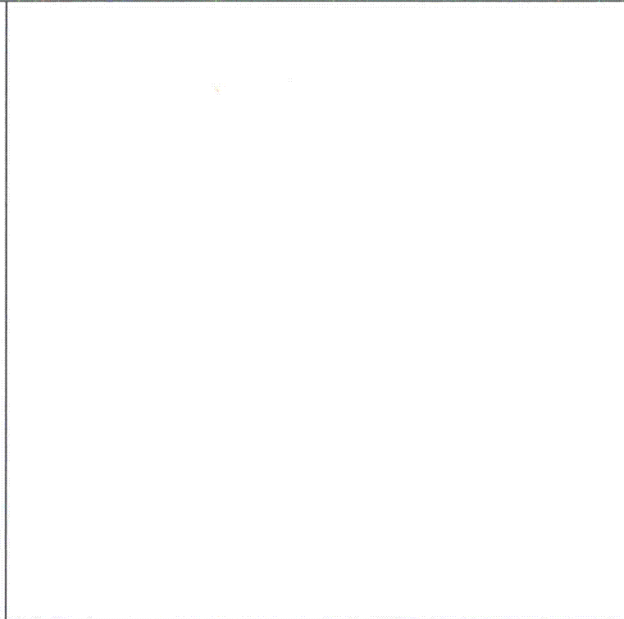
Equipment ID No. DC-BUS-AI-41A Equip. Class⁴ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description PANEL BOARD

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 46

Equipment ID No. EE-8F Equip. Class¹ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description 125V DC NUMBER 1 MAIN DISTRIBUTION PANEL

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 9W'C-0N'7A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 46

Equipment ID No. EE-8F Equip. Class² 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description 125V DC NUMBER 1 MAIN DISTRIBUTION PANEL

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
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
There is only a 3/8" gap between this equipment and other safety related equipment (EE-8C) nearby, raising the possibility of out of phase displacement between these different pieces of equipment, and banging against each other. CR 2012-10427 has been initiated. 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 46

Equipment ID No. EE-8F Equip. Class³ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description 125V DC NUMBER 1 MAIN DISTRIBUTION PANEL

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: Alex Smerch *Alex Smerch* Date: 8/16/2012

John Kao *John Kao* 8/16/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

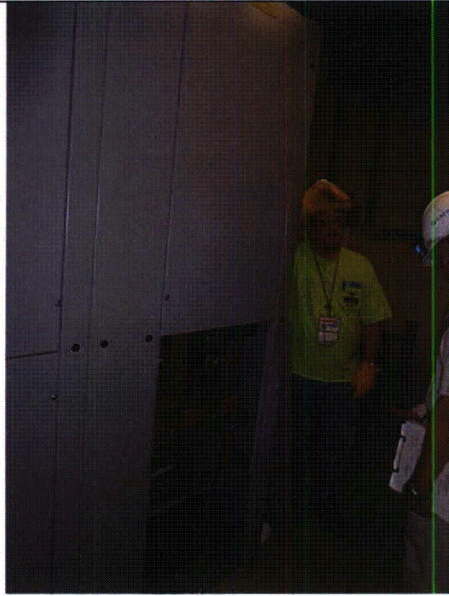
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 46

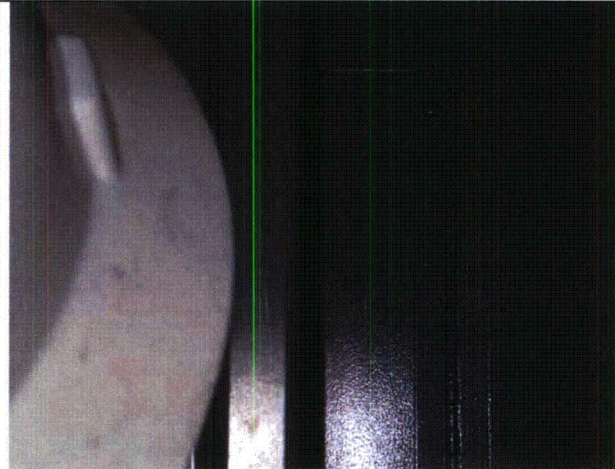
Equipment ID No. EE-8F Equip. Class⁴ 14. DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description 125V DC NUMBER 1 MAIN DISTRIBUTION PANEL

Photographs



Note: *Equipment.*



Note: *Gap between pieces of equipment.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 47

Equipment ID No. I-BUS-A Equip. Class¹ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description BUS

Location: Bldg. AUX Floor El. 1036' Room, Area 77, AI-40A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 47

Equipment ID No. I-BUS-A Equip. Class² 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description BUS

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
-

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 47

Equipment ID No. I-BUS-A Equip. Class³ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description BUS

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: John Kao *John Kao* Date: 8/18/2012

Alex Smerch *Alex Smerch* 8/18/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 47

Equipment ID No. I-BUS-A Equip. Class⁴ 14, DISTRIBUTION PANELS AND AUTOMATIC TRANSFER SWITCHES

Equipment Description BUS

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 48

Equipment ID No. EE-8A Equip. Class¹ 15, BATTERY RACKS

Equipment Description 125 VDC STATION BATTERY NO. 1

Location: Bldg. AUX Floor El. 1012' Room, Area 54, 9W'C-15N'7B

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 48

Equipment ID No. EE-8A Equip. Class² 15, BATTERY RACKS

Equipment Description 125 VDC STATION BATTERY NO. 1

5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which
an anchorage configuration verification is required.) Y N U N/A
*There is no anchorage documentation. Anchorage pattern attached in
photos below. Licensing Basis Evaluation is required.*
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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?
No attached lines. 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 48

Equipment ID No. EE-8A Equip. Class³ 15, BATTERY RACKS

Equipment Description 125 VDC STATION BATTERY NO. 1

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: John Kao Date: 8/15/12

Alex Smerch 8/15/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

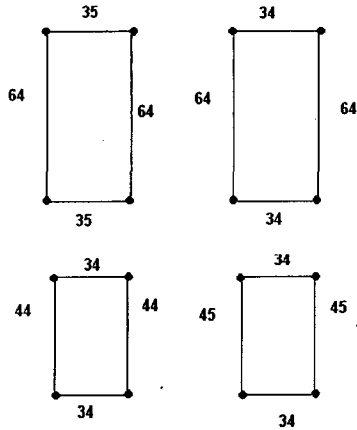
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 48

Equipment ID No. EE-8A Equip. Class⁴ 15, BATTERY RACKS

Equipment Description 125 VDC STATION BATTERY NO. 1

Photographs



Safety Shower (Ref.)

Above is a plan sketch of the 16 anchor bolts for the Battery Racks.
All Dimensions are in Inches.
All anchor diameters are .75"

Note: Field measured anchor dimensions for battery rack (require LB verification).

No photo was able to be taken for component.

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 49

Equipment ID No. EE-8C Equip. Class¹ 16, BATTERY CHARGERS AND INVERTERS

Equipment Description 125V DC BATTERY CHARGER NUMBER 1

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 9W'C-13N'6D

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Some surface pitting of the concrete, not near embedded plates.

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 49

Equipment ID No. EE-8C Equip. Class² 16. BATTERY CHARGERS AND INVERTERS

Equipment Description 125V DC BATTERY CHARGER NUMBER 1

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
*Needs plant documentation. See sketch in photo's section. Licensing
Basis Evaluation is required.*
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N U

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
*There exists a between a 0" and 3/8" gap between EE-8C and EE-8F.
These are two independently anchored pieces of equipment which
during out of phase seismic motion could come into contact. CR 2012-
10427 has been initiated.* 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 are fluorescent light bulbs in hallways near equipment that are
not caged which could cause a potentially adverse seismic condition
with nearby equipment. CR 2012-10423 has been initiated.* 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 49

Equipment ID No. EE-8C Equip. Class³ 16, BATTERY CHARGERS AND INVERTERS

Equipment Description 125V DC BATTERY CHARGER NUMBER 1

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: Alex Smerch *Alex Smerch* Date: 8/16/12

John Kao *John Kao* 8/16/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

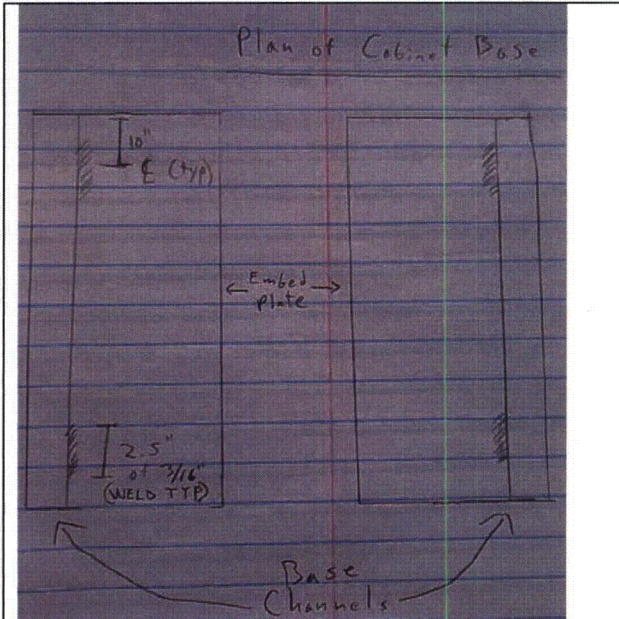
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 49

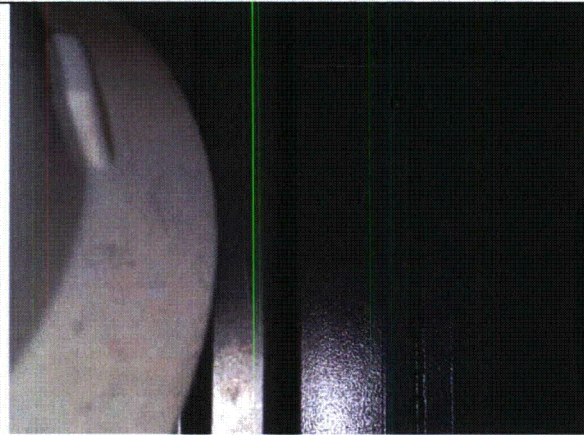
Equipment ID No. EE-8C Equip. Class⁴ 16, BATTERY CHARGERS AND INVERTERS

Equipment Description 125V DC BATTERY CHARGER NUMBER 1

Photographs



Note: Sketch of Anchorage



Note: 3/8" Gap Between EE-8C and EE-8F.

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

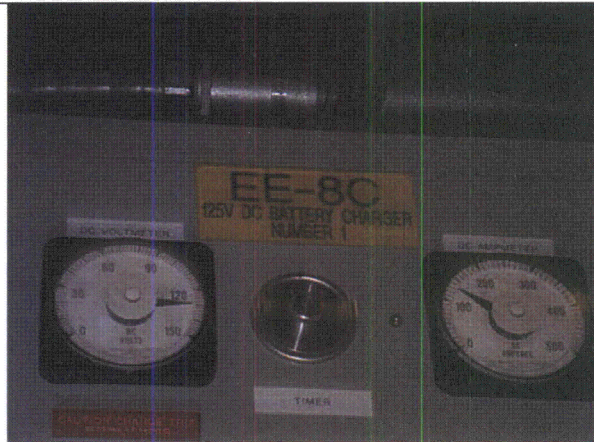
Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 49

Equipment ID No. EE-8C Equip. Class⁵ 16, BATTERY CHARGERS AND INVERTERS

Equipment Description 125V DC BATTERY CHARGER NUMBER 1



Note: *Equipment.*

Note:

⁵ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 50

Equipment ID No. EE-8H Equip. Class¹ 16, BATTERY CHARGERS AND INVERTERS

Equipment Description INSTRUMENT BUS "A" INVERTER "A"

Location: Bldg. AUX Floor El. 1011' Room, Area 56, 7W'C-6N'6D

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 50

Equipment ID No. EE-8H Equip. Class² 16, BATTERY CHARGERS AND INVERTERS

Equipment Description INSTRUMENT BUS "A" INVERTER "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
*Anchorage attachment drawings to Plant floor could not be found. A
licensing basis evaluation is required.*
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N 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
*Fluorescent light bulbs overhead that are not caged which could cause
a potentially adverse seismic condition with nearby equipment. CR
2012-10423 has been initiated.*
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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 50

Equipment ID No. EE-8H Equip. Class³ 16. BATTERY CHARGERS AND INVERTERS

Equipment Description INSTRUMENT BUS "A" INVERTER "A"

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: Alex Smerch  Date: 8/16/2012

John Kao  8/16/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

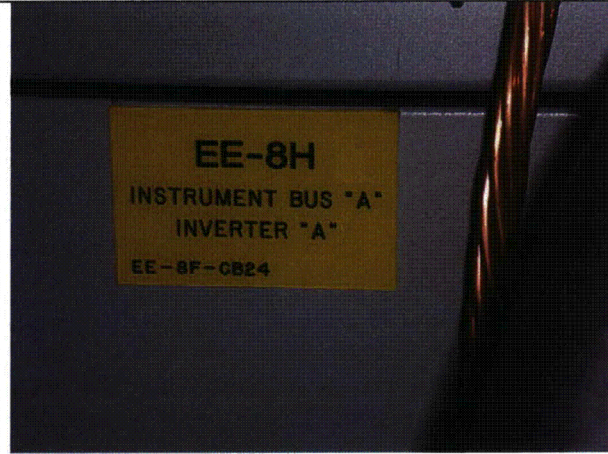
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 50

Equipment ID No. EE-8H Equip. Class⁴ 16, BATTERY CHARGERS AND INVERTERS

Equipment Description INSTRUMENT BUS "A" INVERTER "A"

Photographs



Note: *Equipment Tag*



Note: *Fluorescent light bulbs with no cage overhead.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

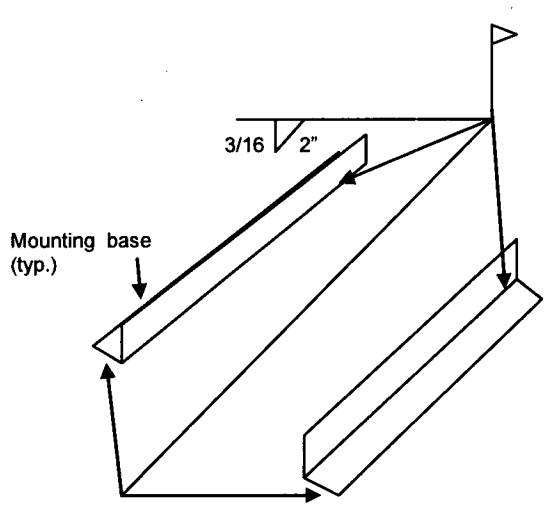
Sheet 5 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 50

Equipment ID No. EE-8H Equip. Class⁵ 16. BATTERY CHARGERS AND INVERTERS

Equipment Description INSTRUMENT BUS "A" INVERTER "A"

 <p>3/16 2"</p> <p>Mounting base (typ.)</p>	
<p>Note: Anchorage configuration sketch.</p>	<p>Note:</p>

⁵ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 51

Equipment ID No. DG-2 Equip. Class¹ 17, ENGINE GENERATORS

Equipment Description EMERGENCY DIESEL GENERATOR #2

Location: Bldg. AUX Floor El. 1010' Room, Area 64, 3E'F-7S'2B

Manufacturer, Model, Etc. (optional but recommended) GM Electromotive 20-645-E4

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 51

Equipment ID No. DG-2 Equip. Class² 17, ENGINE GENERATORS

Equipment Description EMERGENCY DIESEL GENERATOR #2

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 anchorage is consistent with drawing 11405-S-52, Rev. 6 (File#
16437).*
6. Based on the above anchorage evaluations, is the anchorage free of
potentially adverse seismic conditions? Y N U
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Not a soft target 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 51

Equipment ID No. DG-2 Equip. Class³ 17, ENGINE GENERATORS

Equipment Description EMERGENCY DIESEL GENERATOR #2

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

Insulation of piping on top of generator may have not been included in original seismic analysis. CR 2012-10369 has been initiated.

Comments (Additional pages may be added as necessary)

Evaluated by: *Alex Smerch*

Date: 8/15/2012

John Kao
John Kao

8/15/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 51

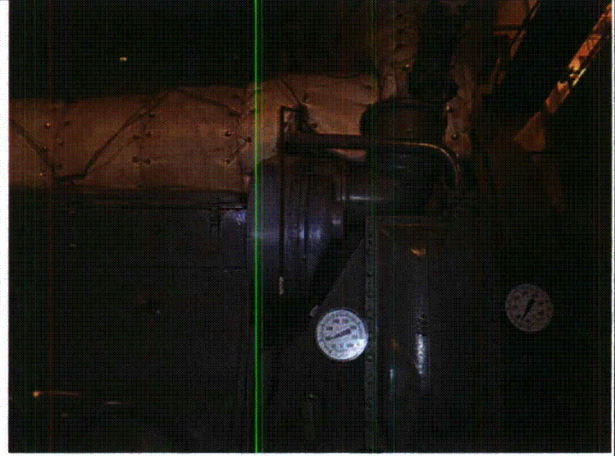
Equipment ID No. DG-2 Equip. Class⁴ 17, ENGINE GENERATORS

Equipment Description EMERGENCY DIESEL GENERATOR #2

Photographs



Note: *Equipment*



Note: *Insulated line on top of generator.*

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 52

Equipment ID No. FT-1368 Equip. Class¹ 18, INSTRUMENT RACKS

Equipment Description MOTOR-DRIVEN AUX FEED PUMP FW-6 SUCTION FLOW TRANSMITTER

Location: Bldg. AUX Floor El. 993' Room, Area 19, 1W'C-4S'4A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 52

Equipment ID No. FT-1368 Equip. Class² 18, INSTRUMENT RACKS

Equipment Description MOTOR-DRIVEN AUX FEED PUMP FW-6 SUCTION FLOW TRANSMITTER

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.)
Drawing 3143K10-058, Sh. 1, Rev. 10 (File# 9906) is used for anchorage configuration verification. Item anchorage may not be consistent with Plant documentation since anchor angle plate is rotated flipped (see photo below and reference drawing). Note on drawing states to see drawing 11405-M-54, Sh. 20 for field configuration. More information is needed and a Licensing Basis Evaluation is required.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 52

Equipment ID No. FT-1368 Equip. Class³ 18, INSTRUMENT RACKS

Equipment Description MOTOR-DRIVEN AUX FEED PUMP FW-6 SUCTION FLOW TRANSMITTER

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: John Kao *John Kao* Date: 8/13/12

Alex Smerch *Alex Smerch* 8/13/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

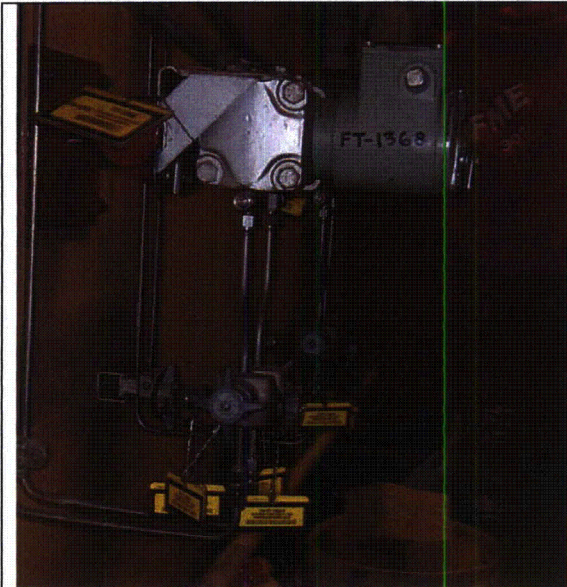
Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 52

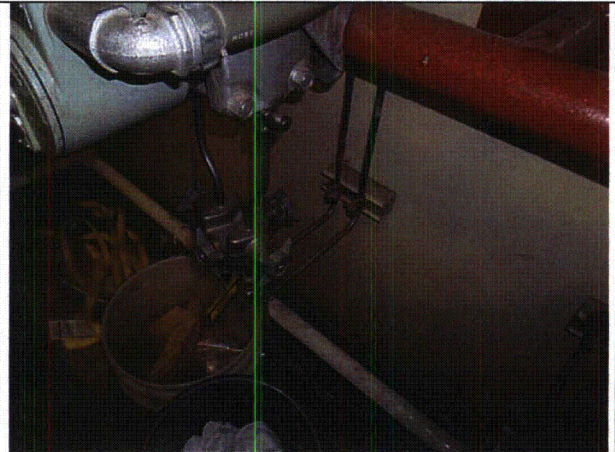
Equipment ID No. FT-1368 Equip. Class⁴ 18, INSTRUMENT RACKS

Equipment Description MOTOR-DRIVEN AUX FEED PUMP FW-6 SUCTION FLOW TRANSMITTER

Photographs



Note: Side view of equipment showing its mounting bracket flipped from configuration drawing.



Note: Equipment close to combustibles. (Acceptable for maintenance area under SO-G-91)

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

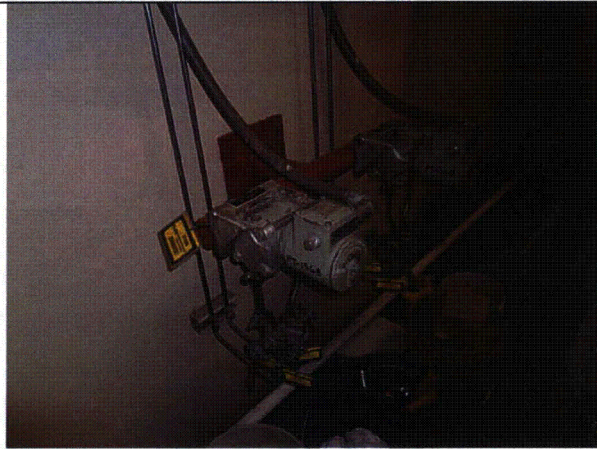
Sheet 5 of 5

Status: Y N U

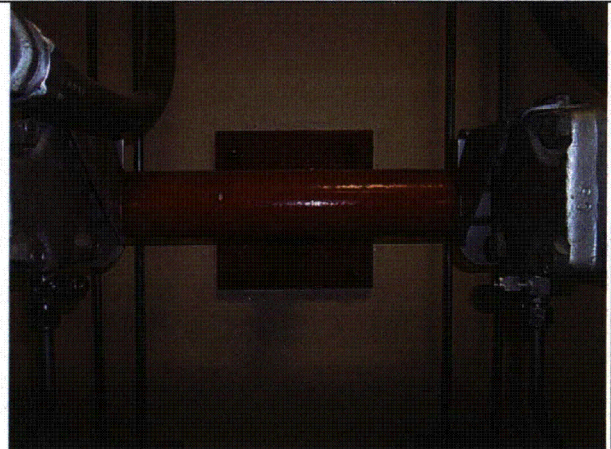
Seismic Walkdown Checklist (SWC) SWC- 52

Equipment ID No. FT-1368 Equip. Class⁵ 18. INSTRUMENT RACKS

Equipment Description MOTOR-DRIVEN AUX FEED PUMP FW-6 SUCTION FLOW TRANSMITTER



Note: *Equipment.*



Note: *Equipment Wall anchorage.*

⁵ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 53

Equipment ID No. LT-1183 Equip. Class¹ 18, INSTRUMENT RACKS

Equipment Description EMGY FEEDWATER STORAGE TNK FW-19 LEVEL TRANSMITTER

Location: Bldg. AUX Floor El. 1039' Room, Area 81, 18W'C-13N'3A

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 53

Equipment ID No. LT-1183 Equip. Class² 18, INSTRUMENT RACKS

Equipment Description EMGY FEEDWATER STORAGE TNK FW-19 LEVEL TRANSMITTER

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 anchorage configuration is consistent with C-4467, Sh. 1, Rev. 1 (File# 64132) and C-4467, Sh. 2, Rev. 0 (File# 64133).
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N 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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 53

Equipment ID No. LT-1183 Equip. Class³ 18, INSTRUMENT RACKS

Equipment Description EMGY FEEDWATER STORAGE TNK FW-19 LEVEL TRANSMITTER

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: John Kao *John Kao* Date: 8/18/2012

Alex Smerch *Alex Smerch* 8/18/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 53

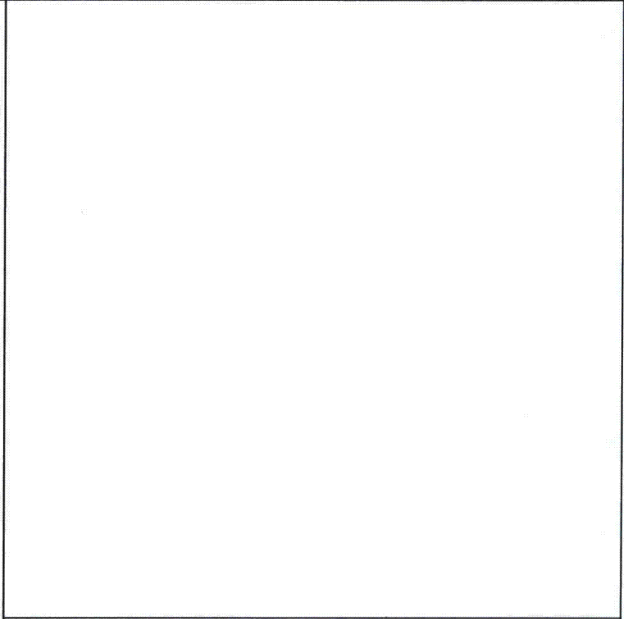
Equipment ID No. LT-1183 Equip. Class⁴ 18, INSTRUMENT RACKS

Equipment Description EMGY FEEDWATER STORAGE TNK FW-19 LEVEL TRANSMITTER

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 54

Equipment ID No. B/LT-911 Equip. Class¹ 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE LEVEL TRANSMITTER

Location: Bldg. CONT Floor El. 1011' Room, Area CONT, 15W'CC-3N'

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 54

Equipment ID No. B/LT-911 Equip. Class² 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE LEVEL TRANSMITTER

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 potentially adverse seismic conditions? Y N 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
There is a cable tray above which is adequately braced and not a credible source for seismic interaction.
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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 54

Equipment ID No. B/LT-911 Equip. Class³ 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE LEVEL TRANSMITTER

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: Alex Smerch *Alex Smerch* Date: 8/27/12

Kevin Bessell *Kevin Bessell* 8/27/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 54

Equipment ID No. B/LT-911 Equip. Class⁴ 18. INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE LEVEL TRANSMITTER

Photographs



Note: *Equipment.*

Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 55

Equipment ID No. B/PT-913 Equip. Class¹ 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE PRESSURE TRANSMITTER

Location: Bldg. CONT Floor El. 1002' Room, Area CONT, 15W'CC-3N'

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 55

Equipment ID No. B/PT-913 Equip. Class² 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE PRESSURE TRANSMITTER

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 55

Equipment ID No. B/PT-913 Equip. Class³ 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE PRESSURE TRANSMITTER

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: Alex Smerch *Alex Smerch* Date: 8/27/12

Kevin Bessell *Kevin Bessell* 8/27/12

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 55

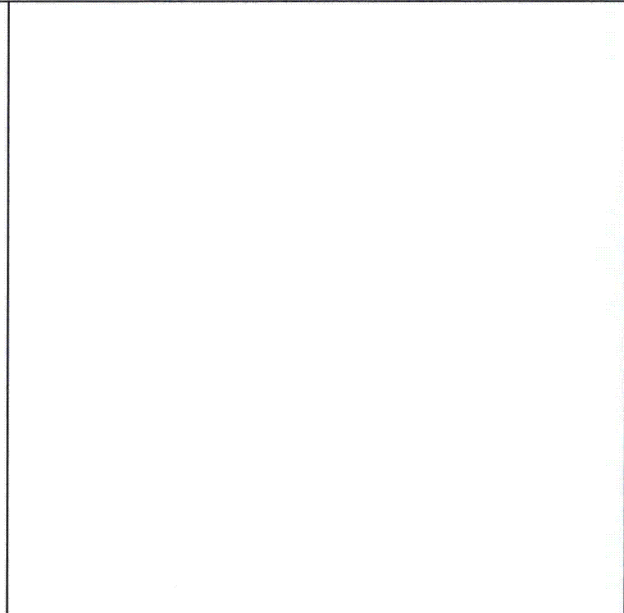
Equipment ID No. B/PT-913 Equip. Class⁴ 18, INSTRUMENT RACKS

Equipment Description STEAM GENERATOR RC-2A WIDE RANGE PRESSURE TRANSMITTER

Photographs



Note: *Equipment.*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 56

Equipment ID No. A/PT-120 Equip. Class¹ 18, INSTRUMENT RACKS

Equipment Description PRESSURIZER RC-4 PRESSURE TRANSMITTER

Location: Bldg. CONT Floor El. 1018' Room, Area CONT, 18W/DD-12N/II

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 56

Equipment ID No. A/PT-120 Equip. Class² 18, INSTRUMENT RACKS

Equipment Description PRESSURIZER RC-4 PRESSURE TRANSMITTER

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

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

² Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 56

Equipment ID No. A/PT-120 Equip. Class³ 18. INSTRUMENT RACKS

Equipment Description PRESSURIZER RC-4 PRESSURE TRANSMITTER

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: John Kao

John Kao

Date: 8/22/2012

Alex Smerch

Alex Smerch

8/22/2012

³ Enter the equipment class name from Appendix B: Classes of Equipment.

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

Status: Y N U

Seismic Walkdown Checklist (SWC) SWC- 56

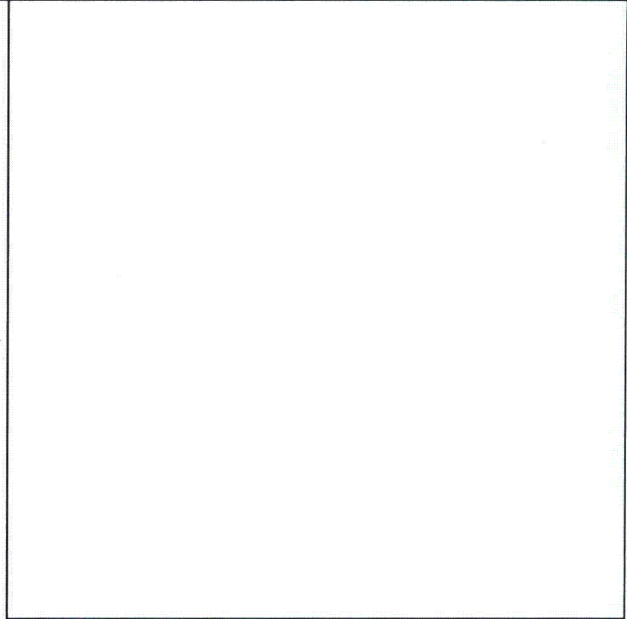
Equipment ID No. A/PT-120 Equip. Class⁴ 18. INSTRUMENT RACKS

Equipment Description PRESSURIZER RC-4 PRESSURE TRANSMITTER

Photographs



Note: *Equipment*



Note:

⁴ Enter the equipment class name from Appendix B: Classes of Equipment.