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Arkansas Nuclear One Unit 1 Seismic Walkdown Report

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

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1.0 SCOPE AND OBJECTIVE

The Great Tohoku Earthquake of March 11, 2011 and the resulting tsunami caused an accident at the Fukushima Dai-ichi nuclear power plant in Japan. In response to this accident, the Nuclear Regulatory Commission (NRC) established the Near-Term Task Force (NTTF). The NTTF was tasked with conducting a systematic and methodical review of NRC processes and regulations and determining if the agency should make additional improvements to its regulatory system. On March 12, 2012 the NRC issued a 10CFR50.54(f) Letter [Ref. 1], which requested information from all licensees to support the NRC staff's evaluation of several of the NTTF recommendations. To support NTTF Recommendation 2.3, Enclosure 3 to the 50.54(f) Letter requested that all licensees perform seismic walkdowns to gather and report information from the plant related to degraded, non-conforming, or unanalyzed conditions with respect to its current seismic licensing basis.

The Electric Power Research Institute (EPRI), with support and direction from the Nuclear Energy Institute (NEI), published industry guidance for conducting and documenting the seismic walkdowns which represented the results of extensive interaction between the NRC, NEI, and other stakeholders. This industry guidance document, EPRI Report 1025286 [Ref. 2], hereafter referred to as "the Guidance", was formally endorsed by the NRC on May 31, 2012. In a letter to the NRC [Ref. 12], Entergy Arkansas Nuclear One (ANO) Unit 1 has committed to using this NRC-endorsed guidance as the basis for conducting and documenting seismic walkdowns for resolution of NTTF Recommendation 2.3: Seismic.

The objective of this report is to document the results of the seismic walkdown effort undertaken for resolution of NTTF Recommendation 2.3: Seismic, in accordance with the Guidance, and to provide the information necessary for responding to Enclosure 3 of the 50.54(f) Letter.

2.0 SEISMIC LICENSING BASIS SUMMARY

ANO Unit 1 is a pressurized water reactor (PWR) located in Russellville, Arkansas, which was originally designed and built by Babcock & Wilcox and Bechtel. ANO is a two unit site with unique reactor designs (Unit 2 NSSS was designed and built by Combustion Engineering and Bechtel). ANO Unit 1 began commercial operation in December of 1974, and is currently rated at 883 MWe power [Ref. 3]. This section summarizes the seismic licensing basis of structures, systems and components (SSCs) at ANO Unit 1, which bound the context of the NTTF 2.3 Seismic Walkdown program.

2.1 SAFE SHUTDOWN EARTHQUAKE (SSE)

The Safe Shutdown Earthquake (SSE) is the earthquake which produces the maximum vibratory ground motion for which those features necessary to shut down the reactor and maintain it in a safe shutdown condition without undue risk to the health and safety of the public are designed to remain functional.

The safe shutdown earthquake for the ANO Unit 1 site is described by a Housner seismic response spectra anchored at 0.200g peak horizontal ground acceleration and 0.133g peak vertical ground acceleration [Ref. 3]. The spectra were based on a seismicity evaluation in which a judgment was made estimating the maximum intensity (Modified Mercalli Intensity VII-VIII) that would occur at the site. The SSE is a hypothetical earthquake, which exceeds in intensity any earthquake expected to be felt at the site. All amplified response spectra for Seismic Category 1 structures may be generated from artificial time-histories of input motion. These time histories are qualified by producing a ground response spectrum with the time-history that must, for each value of damping, acceptably envelope the defined shape of the ground response curve.

2.2 DESIGN CODES, STANDARDS, AND METHODS

Principle structures, systems, and components (SSCs), which may either serve to prevent accidents or to mitigate their consequences, are designed and are erected in accordance with applicable codes to withstand any deleterious natural phenomena which could be reasonably assumed to occur at the site during the lifetime of the plant. A defense in depth concept is used throughout the industry by providing redundant systems such that a single point of failure does not result in an adverse condition. Redundancy is provided in the reactor protective and safety feature systems so that no single failure of an active component of the system would prevent action necessary to avoid an unsafe condition.

Seismic Category I SSCs are components (1) whose failure could cause uncontrolled release of radioactivity, or (2) that are essential for safe reactor shutdown and the immediate and long-term operation following a Design Basis Accident.

Response Spectra

The design basis amplified response spectra for Seismic Category I Structures at ANO Unit 1 were generated from artificial time histories or input motion [Ref. 9]. The time histories are tested for a given level of structural damping thus creating a response spectrum from the time history input. This is done by analyzing a series of single degree of freedom oscillators, each with a specific frequency, and calculating the maximum response of these oscillators using the developed time history as the input. The response spectrum generated is the curve connecting the maximum responses. This response spectrum developed from the time histories of each value of damping, acceptably envelopes the defined shape of the ground response curve.

Equipment and Components

The safe-shutdown systems of early nuclear power plants were not designed to current seismic qualification standards and requirements. In December 1980, the NRC sought assurances that equipment in these older plants could operate during and after an earthquake (Unresolved Safety Issue (USI) A-46, Seismic Qualification of Equipment in Nuclear Power Plants). In January 1982, a number of utilities owning older nuclear plants affected by the NRC decision formed the Seismic Qualification Utilities Group (SQUG). The purpose of SQUG was to develop a generic utility group response in support of the resolution of this issue. ANO joined SQUG in 1984. Both SQUG and the NRC have agreed that an acceptable resolution of USI A-46 can be achieved by using seismic experience data as a means of validating installed equipment. The NRC concluded in Generic Letter 87-02 that the adequacy of certain equipment (generally safe shutdown, active mechanical or electrical) in specific operating nuclear plants (ANO Units 1 and 2 included) be reviewed against seismic criteria not in use when these plants were licensed. SQUG developed and submitted a Generic Implementation Plan (GIP), Revision 0, dated June 1988, which defined utility actions necessary to close the issue on a plant specific basis. The NRC issued a Generic Safety Evaluation Report (SER) which conditionally approved the GIP and left several incomplete topics for subsequent review. Revision 2 of the GIP (GIP- 2) resolved these topics and incorporated NRC comments. Subsequently, ANO Unit 1 committed "to the SQUG commitments in GIP-02 as supplemented by the clarifications, interpretations, and exceptions identified in SSER-2 [Supplemental Safety Evaluation Report No. 2] and as clarified by the August 21, 1992, SQUG letter responding to SSER-2 for the resolution of USI A-46 at ANO-1 and ANO-2" [Ref. 10].

ANO Unit 1 completed all the NRC requirements (including resolution of all outliers) and received approval of the resolution of the USI A-46 issues in a letter dated February 7, 2000 [Ref. 11]. The letter gave permission for the site to revise the licensing basis to include earthquake experience data. This was incorporated into the Units 1 & 2 FSAR.

Codes and Industry Standards

Seismic Class I structures are generally proportioned to maintain elastic behavior when subjected to various combinations of dead loads, thermal loads, accident loads, seismic and tornado loads.

ANO Unit 1 has committed to the following codes and standards as stated in ULD-0-TOP-03 [Ref. 9] and the Unit 1 USAR [Ref. 3].

Safety-related structural steel is designed in accordance with American Institute of Steel Construction (AISC), Manual of Steel Construction, 6th Edition, April 1963.

Safety-related concrete is designed in accordance with American Concrete Institute (ACI-308-63), Building Code Requirements for Reinforced Concrete.

Safety-related welds are designed in accordance with American Welding Society (AWS) D1.0-66, American Welding Society AWS D12.1 (1966 Edition).

In general, the seismic design of safety-related structures at ANO Unit 1 conforms with AEC Publication TID 7024, Nuclear Reactors and Earthquakes, and UBC, 1967 Edition.

Babcock & Wilcox Topical Report, BAW-10003, Qualification Testing of Protections System Instrumentation, Rev. 2 addresses seismic issues, including results of testing and analysis of the Reactor Protection System (RPS) and the Engineered Safeguards Actuation System (ESAS), dealing with the Unit.

IEEE-323-1971, General Guide for Type Test of Class I Electric Equipment for Nuclear Power Generating Stations, and IEEE Standard 344-1975, IEEE Recommended Practice for Seismic Qualification of Class IE Equipment for Nuclear Power Generating Stations, are used in qualifying electrical and mechanical equipment.

Piping systems, pumps, valves, heat exchangers and pressure vessels are designed to the following codes and industrial standards:

- ANSI B31.7-1969 Nuclear Piping Code, including the latest published addenda in force on the date of purchase
- ASME Boiler and Pressure Vessel Code, Section III-1965, "Nuclear Vessels," including the latest published addenda in force on the date of purchase
- ASME Boiler and Pressure Vessel Code, Section VIII-1989, "Pressure Vessels, Division I," including the latest published addenda in force on the date of purchase

- ANSI B31.1.0-1967 Power Piping Code, including the latest published addenda in force on the date of purchase
- ASME Nuclear Pump and Valve Code, including latest published addenda in force on the date of purchase

3.0 SEISMIC WALKDOWN PROGRAM IMPLEMENTATION APPROACH

Entergy ANO Unit 1 has committed to conduct and document seismic walkdowns for resolution of NTTF Recommendation 2.3: Seismic [Ref. 12] in accordance with the EPRI Seismic Walkdown Guidance [Ref. 2]. The approach provided in the Guidance for addressing the actions and information requested in Enclosure 3 to the 50.54(f) Letter includes the following activities, the results of which are presented in the sections shown in parenthesis:

- Assignment of appropriately qualified personnel (Section 4.0)
- Reporting of actions taken to reduce or eliminate the seismic vulnerabilities identified by the Individual Plant Examination of External Events (IPEEE) program (Section 5.0)
- Selection of SSCs to be evaluated (Section 6.0)
- Performance of the seismic walkdowns and area walk-bys (Section 7.0)
- Evaluation and treatment of potentially adverse seismic conditions with respect to the seismic licensing basis of the plant (Section 8.0)
- Performance of peer reviews (Section 9.0)

The coordination and conduct of these activities was initiated and tracked by Entergy corporate leadership, which provided guidance to each Entergy site throughout the seismic walkdown program, including ANO Unit 1. Entergy contracted with an outside nuclear services company to provide engineering and project management resources to supplement and assist each individual site. Each site had dedicated engineering contractors, supported by their own project management and technical oversight, who worked closely with plant personnel.

4.0 PERSONNEL QUALIFICATIONS

The NTTF 2.3 Seismic Walkdown program involved the participation of numerous personnel with various responsibilities. This section identifies the project team members and their project responsibilities, and provides brief experience summaries for each. Training certificates of those qualified as Seismic Walkdown Engineers are included in Attachment I.

Table 4-1 summarizes the names and responsibilities of personnel used to conduct the seismic walkdowns. Experience summaries of each person follow.

Table 4-1: Walkdown Personnel

Name	Equipment Selection Personnel	Seismic Walkdown Engineer	Licensing Basis Reviewer[3]	IPEEE Reviewer
Sean Smolarek (ENERCON)	X[1]	X		X
Heidi Graf (ENERCON)	X			
Eric Dilbone (ENERCON)	X	X		X
Daniel Andoh (ENERCON)		X		
Roy Berryman (ENERCON)		X		
Genaro Barragan (Structural Integrity Associates)		X		
Michael Perez (SC Solutions)		X		
Daniel Parker (ANATECH)		X		
John Kinney (ENERCON)	X[2]			
Chris Johnson (Entergy)		X		
Ojaswi Shrestha (Entergy)		X		

Notes:

1. Designated lead SWE
2. Plant operations representative
3. No Licensing Basis Evaluations were performed

Sean Smolarek

Mr. Smolarek is a structural engineer with over 5 years of experience. He is a graduate of Georgia Institute of Technology with a Bachelor's Degree in Civil Engineering, and is currently assigned to ENERCON's office in Kennesaw, Georgia working as a civil/structural engineer. Mr. Smolarek has significant seismic experience including the design and modification of numerous buildings, structures, and distribution system and equipment supports. He has worked on modifications of numerous systems and has an understanding of plant document control and operations. He has spent significant time studying the IPEEE and the USI A-46 programs and their impacts on the industry. Mr. Smolarek completed the NTTF 2.3 Seismic Walkdown Training Course in August of 2012.

Heidi Graf

Ms. Graf is a mechanical engineer in the Power Generation Group out of the Kennesaw, Georgia office of ENERCON. Ms. Graf has over 17 years of commercial nuclear power engineering experience including 7 years in Nuclear Plant Design and Support with the Southern Nuclear Company's (SNC) Farley Nuclear Plant. Ms. Graf has completed multiple modification projects for various nuclear plants on numerous systems. She has knowledge of plant documentation. Ms. Graf has completed several training courses on plant operations and has an understanding of many nuclear systems. She has spent significant time studying the IPEEE and the USI A-46 programs and their impacts on the industry.

Eric Dilbone

Mr. Dilbone graduated from Vanderbilt University with a Bachelor's Degree in Mechanical Engineering. He is currently assigned to ENERCON's office in Kennesaw, Georgia working as a mechanical engineer. He has worked on seismically designed piping systems including pipe, valve and pump design related to a nuclear power uprate project. Mr. Dilbone completed the NTTF 2.3 Seismic Walkdown Training Course in July of 2012.

Daniel Andoh, PE

Mr. Andoh is an experienced structural engineer with over 30 years of experience. He is a graduate of University of Science and Technology in Kumasi, Ghana with Bachelors in Civil Engineering and from the University of Cincinnati with a Master's Degree in Structural Engineering. He is currently assigned to ENERCON's Kennesaw office as a civil/structural engineer. Mr. Andoh is a registered Professional Engineer in Ohio (Registration Number PE.50107), Georgia (Registration Number PE032037) and Kentucky (Registration Number 27846). Mr. Andoh has significant seismic experience including the design and modification of numerous buildings, structures, and equipment supports. He has performed nuclear seismic analysis on several steel structures and has designed the subsequent modifications

to those structures. Mr. Andoh completed the NTTF 2.3 Seismic Walkdown Training Course in August of 2012.

Roy Berryman

Mr. Berryman is a structural engineer with over 4 years of experience. He is a graduate of University of Alabama – Huntsville with a Bachelor's Degree in Civil Engineering, and is currently assigned to ENERCON's office in Birmingham, Alabama working as a civil/structural engineer. Mr. Berryman has seismic experience including the design and modification of nuclear structures and distribution system and equipment supports. He has significant experience in heavy industrial building design and modifications, specifically in the areas of shear walls, steel frames, and diaphragms. He has spent several months on nuclear sites supporting modifications of seismically designed systems. Mr. Berryman completed the NTTF 2.3 Seismic Walkdown Training Course in July of 2012.

Genaro Barragan

Mr. Barragan graduated from San Jose State University with a Bachelor's Degree in Mechanical Engineering. He is currently assigned to Structural Integrity Associates office in San Jose, California as an Engineering Analyst. Mr. Barragan has experience in seismic piping design and stress analysis. He has also been involved with Structural Integrity Associates Quality Assurance program as it relates to piping system design. Mr. Barragan completed the NTTF 2.3 Seismic Walkdown Training Course in September of 2012.

Michael Perez

Mr. Perez is a structural engineer with over 2 years of experience. He holds a Master's Degree in Civil Engineering and is currently assigned to SC Solutions, Inc. office in Sunnyvale, California working as a structural engineer. He has worked a researcher at the Earthquake Engineering Research Center (EERC) in Richmond, California where he worked to create academic exercises and lecture slides for an earthquake engineering lab class. Mr. Perez has seismic experience in finite element analysis for existing nuclear structures. He has performed seismic analysis to generate seismic response spectra, determine base shears and overturning moments, as well as performing soil structure analysis for category I nuclear structures for power plants currently undergoing certification. Mr. Perez completed the NTTF 2.3 Seismic Walkdown Training Course in July of 2012.

Daniel Parker, PE

Mr. Parker is an experienced structural engineer with over 20 years of experience. He is a graduate of University of California, San Diego with a Master's Degree in Structural Engineering. He is currently working for ANATECH Corp as a structural engineer. Mr. Parker is a registered Professional Engineer in California (Registration Number C055978) and in New York (Registration Number 085286). Mr. Parker has significant seismic experience with

design and modification of structures including finite element analysis for existing nuclear safety related structures. He has experience with seismic qualification several reactor buildings where he provided minimum sizes for welded and bolted connections, and member sizing design based on calculated peak forces. He has performed response spectrum analysis and time history analysis for semi-gantry and overhead cranes. Mr. Parker completed the NTTF 2.3 Seismic Walkdown Training Course in July of 2012.

John Kinney

Mr. Kinney is a former Senior Reactor Operator with a background in shift operations and work management processes. He graduated from the State University of New York at Buffalo with a degree in Geology. He served in the US Navy from 1981 to 1987. He is a former Shift Manager for ANO Unit 1 with extensive knowledge of ANO Operations. Mr. Kinney has knowledge of nearly all systems associated with operations and he has extensive knowledge on plant layout, including accessibility and room-specific/area-specific environmental conditions. He also has knowledge of ANO specific operating procedures.

Chris Johnson, PE

Mr. Johnson is a civil engineer with over 7 years of experience. He is a graduate of the University of Arkansas with a Bachelor's Degree in Civil Engineering, and a Master's Degree in Operations Management. Mr. Johnson is a registered Professional Engineer in Arkansas (Registration Number 14260). He is employed by Entergy Operations, Inc. and works at Arkansas Nuclear One in the Design Engineering – Civil department. Mr. Johnson completed the NTTF 2.3 Seismic Walkdown Training Course in June of 2012.

Ojaswi Shrestha

Ms. Shrestha is a civil engineer with over 5 years of experience. She is a graduate of Tribhuvan University in Kathmandu, Nepal with a Bachelor's Degree in Civil Engineering and from Oklahoma State University with a Master's Degree in Civil Engineering. At the time of the walkdowns, she was employed by Entergy Operations, Inc. and worked at Arkansas Nuclear One in the Design Engineering – Civil Department. Ms. Shrestha completed the NTTF 2.3 Seismic Walkdown Training Course in July of 2012.

4.1 EQUIPMENT SELECTION PERSONNEL

A total of 4 individuals served as Equipment Selection Personnel – see Table 4-1.

4.2 SEISMIC WALKDOWN ENGINEERS

A total of 9 individuals served as Seismic Walkdown Engineers – see Table 4-1.

4.3 LICENSING BASIS REVIEWERS

Since no LBEs were performed, no individuals served as Licensing Basis Reviewers – see Table 4-1.

4.4 IPEEE REVIEWERS

A total of 2 individuals served as IPEEE Reviewers – see Table 4-1.

4.5 PEER REVIEW TEAM

Table 4-2 summarizes the names and responsibilities of personnel used to conduct peer reviews of the seismic walkdown program. Experience summaries of each person follow.

Table 4-2: Peer Review Personnel

Name	SWEL Peer Reviewer	Walkdown Peer Reviewer	Licensing Basis Peer Reviewer[3]	Submittal Report Peer Reviewer
Ben Kosbab (ENERCON)		X		X[1,2]
Frank Cobb (ENERCON)	X[2]			
Rodney Carter (ENERCON)	X			
Paul Miktus (ENERCON)		X[2]		X

Notes:

1. Peer Review Team Leader
2. Lead peer reviewer of particular activity
3. No Licensing Basis Evaluations were performed

Ben Kosbab

Dr. Kosbab is a civil/structural engineer with ENERCON specializing in seismic engineering of nuclear power plant structures, systems, and components. He has earned Master of Science and Ph.D. degrees in civil/structural engineering from the Georgia Institute of Technology with a focus on probabilistic seismic response and fragility analysis of industrial structures. In the nuclear industry, Dr. Kosbab has been involved with seismic time-history and response spectra development, seismic equipment qualification, design of seismic supports, walkdowns, dynamic structural analysis, seismic instrumentation analysis, and soil-structure interaction analysis for plant modifications at numerous nuclear facilities. Dr. Kosbab maintains active involvement with the Nuclear Energy Institute (NEI) Seismic Task Force, and completed the EPRI NTTF 2.3: Seismic Walkdown Training in July of 2012.

Frank Cobb

Mr. Cobb has 30+ years of combined experience in heavy industrial, nuclear, and commercial system engineering and commissioning with an emphasis on heating, ventilation, and air conditioning (HVAC). He has significant experience in system design basis, technical procedure development, project management, light conceptual design, heavy construction design, engineering supervision, construction supervision, and system testing. Mr. Cobb has functioned as project manager, system, field and design engineer, parts engineer, system startup test engineer, and test group supervisor. He has worked on a wide variety of nuclear system modifications leading to an overall understanding of plant operations and nuclear documentation.

Rodney Carter

Mr. Carter is a former Senior Reactor Operator for ANO Unit 2. He graduated from the Arkansas Tech University with a degree in Health and Physical Education. He is a former Shift Manager for ANO Unit 2 and a former Assistant Operations Manager over Operating Crew and over Training. He has extensive knowledge of both ANO Unit 1 and Unit 2. Mr. Carter has knowledge of nearly all systems associated with operations and he has extensive knowledge on plant layout, including accessibility and room-specific/area-specific environmental conditions. He also has knowledge of ANO specific operating procedures.

Paul Miktus, PE

Mr. Miktus is an experienced civil/structural engineer with over 35 years of experience. He is currently assigned to ENERCON's office in Kennesaw, Georgia working as a Lead Project Manager. Mr. Miktus is a former Engineering Supervisor at River Bend Station. Mr. Miktus has significant seismic experience dealing with design and modification of seismic structures. Mr. Miktus was involved with the River Bend IPEEE seismic walkdowns. Mr. Miktus served as a Seismic Walkdown Lead Engineer at another utility prior to serving as peer reviewer for ANO. He completed the SQUG Walkdown Screening and Seismic Evaluation Training and the Seismic IPE Add-On Training Courses in June/July of 1992.

5.0 IPEEE VULNERABILITIES REPORTING

During the IPEEE program in response to NRC Generic Letter 88-20 [Ref. 4], plant-specific seismic vulnerabilities were identified. In this context, "vulnerabilities" refers to conditions found during the IPEEE program related to seismic anomalies, outliers, or other findings.

IPEEE Reviewers (see Section 4.4) reviewed the IPEEE final report [Ref. 5] and supporting documentation to identify items that presented a seismic vulnerability according to 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.

The seismic vulnerabilities identified for ANO Unit 1 during the IPEEE program are reported in Attachment A; a total of 27 seismic vulnerabilities were identified. For each identified seismic vulnerability, Attachment A includes three pieces of information requested by Enclosure 3 of the 50.54(f) Letter:

- a description of the action taken to eliminate or reduce the identified seismic vulnerability;
- whether the configuration management program (CMP) has maintained the IPEEE action (including procedural changes) such that the vulnerability continues to be addressed;
- when the resolution actions were completed (per LIR L96-0055).

In Attachment A, the CMP column is marked "Yes" when a change to a controlled document was made as a result of the identified IPEEE vulnerability.

The list of IPEEE vulnerabilities provided in Attachment A was used to ensure that some equipment enhanced as a result of the IPEEE program were included in the equipment selected for the NTTF 2.3 Seismic Walkdowns (see Section 6.1.2). Documents describing these equipment enhancements and other modifications initiated by identification of IPEEE vulnerabilities were available and provided to the SWEs during the NTTF 2.3 Seismic Walkdowns.

6.0 SEISMIC WALKDOWN EQUIPMENT LIST DEVELOPMENT

This section summarizes the process used to select the SSCs that were included in the Seismic Walkdown Equipment List (SWEL) in accordance with Section 3 of the Guidance. A team of equipment selection personnel with extensive combined knowledge of plant systems and components was selected to develop the SWEL. The SWEL is comprised of two groups of items:

- SWEL 1 consists of a sample of equipment required for safe shutdown of the reactor and maintain containment integrity (i.e., maintaining the five safety functions)
- SWEL 2 consists of items related to the spent fuel pool

The final SWEL is the combination of SWEL 1 and SWEL 2. The development of these two groups is described in the following sections.

6.1 SAMPLE OF REQUIRED ITEMS FOR THE FIVE SAFETY FUNCTIONS

Safe shutdown of the reactor involves four safety functions:

- Reactor reactivity control (RRC)
- Reactor coolant pressure control (RCPC)
- Reactor coolant inventory control (RCIC)
- Decay heat removal (DHR)

Maintaining containment integrity is the fifth safety function:

- Containment function (CF)

The overall process for developing a sample of equipment to support these five safety functions is summarized in Figure 1-1 of the Guidance. Figure 1-1 of the Guidance provides a screening method for selecting SSCs, starting with all of the SSCs for the plant and reducing the number based on certain screening criteria referenced in Section 3 of the Guidance. The list of equipment coming out of Screen #3 and entering Screen #4 is defined as Base List 1. The list of equipment coming out of Screen #4 is the first Seismic Walkdown Equipment List, or SWEL 1. Development of these lists is described separately in the following sections.

6.1.1 Base List 1

Based on Figure 1-1 and Section 3 of the Guidance, Base List 1 should represent a set of Seismic Category (SC) I equipment or systems that support the five safety functions. The IPEEE program was intended to address the seismic margin of SSCs

associated with each of the five safety functions. At ANO Unit 1, the EPRI Seismic Margin Assessment (EPRI SMA) method was used to complete the seismic IPEEE program, based on EPRI Report NP-6041 titled "A Methodology for Assessment of Nuclear Power Plant Seismic Margin" [Ref. 8]. Section 3 of the ANO Unit 1 IPEEE report [Ref. 5] describes that an equipment list was developed representing the SSCs necessary for one preferred and one alternate "success path" capable of achieving and maintaining a safe shutdown condition for at least 8 hours following a SSE event. The equipment list of SSCs from the IPEEE report closely represents components meeting the requirements of Screens #1 through #3 of the Guidance; therefore, the IPEEE equipment list of SSCs [Ref. 5] on the success paths is used as a starting point for the NTTF 2.3 Seismic Walkdown Base List 1. Each component was then checked in the Entergy Component Electronic Database to verify its safety classification, preventative maintenance, environment, etc. Entergy's Electronic Database was searched, and plant personnel were consulted to find any additional components that were added or replaced in the past 15 years (since the IPEEE report). The resulting list represents Base List 1.

Base List 1 is presented as Table 1 in Attachment B. Base List 1 has 756 total items.

6.1.2 SWEL 1

Based on Figure 1-1 and Section 3 of the Guidance, SWEL 1 should represent a diverse population from items on Base List 1 including representative items from a variety of systems within each of the five sample selection attributes. Additionally, the selection of SWEL 1 items includes consideration of the importance of the contribution to risk for the SSCs. Equipment Selection Personnel (see Table 4-1) developed SWEL 1 using an iterative process. The following paragraphs describe the equipment selection process for the final SWEL 1 and how each of the five sample selection attributes are reflected while also considering risk significance. In general, preference for inclusion on SWEL 1 was given to items that are accessible and have visible anchorage. SWEL 1 items are shown in bold on Table 1 in Attachment B.

SWEL 1 is presented as Table 2 in Attachment B. SWEL 1 has 102 total items.

Variety of Types of Systems

Items were selected from Base List 1 ensuring that all of the five safety functions were well represented. Additionally, components from a variety of frontline and support systems, as defined in Appendix E of the Guidance, were selected. The system type of each item on SWEL 1 is listed on Table 2 of Attachment B.

Major New and Replacement Equipment

With assistance from plant operations, Equipment Selection Personnel identified items on Base List 1 which are either major new or replacement equipment installed within the past 15 years, or have been modified or upgraded recently. These items are designated as such in a column on Base List 1 in Table 1 of Attachment B. No new or replacement equipment meeting the definition of "major" in the Guidance was identified so none were included on SWEL 1.

Variety of Equipment Types

According to Appendix B of the Guidance, there are 22 classes of mechanical and electrical equipment. The items on Base List 1 were classified accordingly and the total number of items from each class was determined. Items were then selected from Base List 1 ensuring that each of the equipment classes was represented on SWEL 1 in approximately equal ratios. The equipment class of each item on SWEL 1 is listed in Table 2 of Attachment B. Note that SWEL 1 does not include components from Classes 11 or 12 since they are not represented on Base List 1. Additionally, minimal Classes 3 and 6 items are represented on Base List 1 and are not reasonably and safely accessible, so were not included on SWEL 1.

Variety of Environments

Items were selected from Base List 1 located in a variety of buildings, rooms, and elevations. These item locations represented environments that were both inside and outside, as well as having high temperature and/or elevated humidity, and also within containment. Items that were part of borated systems were also included. The location and environment of each item on SWEL 1 is listed in Table 2 of Attachment B.

IPEEE Enhancements

With assistance from IPEEE Reviewers, Equipment Selection Personnel identified items on Base List 1 which were enhanced as a result of seismic vulnerabilities identified during the IPEEE program (see Section 5.0). These items are designated as such in the column designated "IPEEE" on Base List 1 in Table 1 of Attachment B. Several of these items are represented on SWEL 1 (Table 2, Attachment B).

Risk Significance

Information from the plant Probabilistic Risk Analysis (PRA) model and the Maintenance Rule Program implementation documentation were used to determine whether items were risk significant. The components were ranked using the RAW (Risk Achievement Worth). RAW represents the factor that the Core Damage Frequency (CDF) would increase by if the component is assumed to fail with certainty. When it came to items with similar sample selection attributes, the items with higher risk significance were chosen.

6.2 SPENT FUEL POOL ITEMS

The overall process for developing a sample of SSCs associated with the spent fuel pool (SFP) is similar to that of the screening process for SWEL 1 and is summarized in Figure 1-2 of the Guidance. The items coming out of Screen #2 and entering Screen #3 are defined as Base List 2. The items coming out of Screen #4 are the items that could potentially cause the SFP to drain rapidly. The items coming out of either Screen #3 or Screen #4 are the second Seismic Walkdown Equipment List, or SWEL 2. Development of these lists is described separately in the following sections.

6.2.1 Base List 2

Based on Figure 1-2 and Section 3 of the Guidance, Base List 2 should represent the Seismic Category I equipment or systems associated with the SFP. To develop Base List 2, Equipment Selection Personnel (see Table 4-1) reviewed plant design, licensing basis documentation, and plant drawings for the SFP and its associated cooling system. After a review of all associated documentation and extensive searches through the Entergy Component Electronic Database, only one item was identified, specifically dealing with Makeup Water for the SFP. Having minimal items is expected as ANO's spent fuel pool cooling is a non-safety related system as shown in the Spent Fuel Pool Upper Level Document [Ref. 13]. Having a non-safety related Spent Fuel Pooling Cooling system is typical of plants with similar age to ANO.

Base List 2 is presented as Table 3 in Attachment B. Base List 2 has one total item.

6.2.2 Rapid Drain-Down

Rapid drain-down is defined as unintentionally lowering the water level to the top of the fuel assemblies within 72 hours after an earthquake [Ref. 2]. Consistent with the Guidance, the Equipment Selection Personnel (see Table 4-1) looked to identify SSCs that could cause the SFP to drain rapidly by first reviewing the SFP documentation to identify penetrations below about 10 ft above the top of the fuel assemblies [Ref. 2].

The review found that no such SFP penetrations exist below the critical threshold of 10 ft above the top of the fuel assemblies. Additionally, anti-siphon devices are installed on all piping coming into the SFP. Therefore, there is no potential for rapid drain-down of the SFP following a seismic event. Consequently, there are no rapid drain-down items on SWEL 2.

6.2.3 SWEL 2

Based on Figure 1-2 and Section 3 of the Guidance, SWEL 2 is a broad population of items on Base List 2 including representative items from some of the variations within each of four sample selection attributes (using sample process similar to SWEL 1), plus each item that could potentially cause rapid-drain down of the SFP. Considering that Base List 2 only has one item, the SWEL 2 selection represents the entire Base List 2.

SWEL 2 is presented as Table 4 in Attachment B. SWEL 2 has one total item.

6.3 DEFERRED INACCESSIBLE ITEMS ON SWEL

Each item on the SWEL shall be walked down as part of the NTTF 2.3 Seismic Walkdown program. In order to perform the seismic walkdowns of these items, it is necessary to have access to them and to be able to view their anchorage. In some cases, entire classifications (represented by only a few items) of components are inaccessible and are not expected to be available within the lifespan of the plant (i.e. class 3 and 6). In other cases, equipment is located inside the Reactor Building and is temporarily inaccessible because ANO Unit 1 was at power during the entire 180-day response period of Enclosure 3 to the 50.54(f) Letter. In accordance with Enclosure 3, these items are considered "deferred" and a schedule for completion has been developed. Walkdowns of the items in the Reactor Building have been deferred until the next refueling outage (RFO) in March of 2013. An updated submittal report incorporating these deferred walkdowns will be provided by September 30, 2013.

Deferred items are summarized in the table below. The reason for deferral is identified as ACC, indicating that the item is in an inaccessible area while the plant is at power. A total of 9 items are deferred, all of which are located within the Reactor Building.

Table 6-1: Deferred Items

SWEL#	Equipment ID	Description	Location	Reason
SWEL1-031	CV-1050	DH SUCT ISOL	RB EL 336 AZIMUTH 310	ACC
SWEL1-032	CV-1410	DECAY HEAT SUCTION FROM RCS ISOL	RB EL 336 AZIMUTH 315	ACC
SWEL1-035	CV-7403	RB PURGE OUTLET	RB EL 424 AZIMUTH 15	ACC
SWEL1-037	CV-6205	CHILL WTR RTN RB ISOL	RB EL 357 AZIMUTH 130	ACC
SWEL1-038	CV-1213	LD CLR E-29A IN ISOL	RB EL 336 AZIMUTH 250	ACC
SWEL1-039	CV-1273	P-32A SEAL RETURN	RB EL 357 AZIMUTH 0	ACC
SWEL1-054	VSF-1C	RX/BLD COOLER FAN ASSEMBLY	RB EL 376 AZIMUTH 280	ACC
SWEL1-055	VCC-2D	RB SERVICE WATER COOLER COIL	RB EL 376 AZIMUTH 290	ACC
SWEL1-076	TE-1139	'B' LOOP TH TEMP	RB EL 410 AZIMUTH 150	ACC

7.0 SEISMIC WALKDOWNS AND AREA WALK-BYS

The NTTF 2.3 Seismic Walkdown program, conducted in accordance with the Guidance, involves two primary walkdown activities: Seismic Walkdowns and Area Walk-Bys. These activities were conducted at ANO Unit 1 by pairs of trained and qualified Seismic Walkdown Engineers (SWEs) (see Table 4-1). A total of nine SWEs were used to perform the walkdowns. The teams periodically rotated personnel to cross-check consistency between the SWEs and to ensure that each engineer was able to share their personal experience and learn from the experience of their team member.

The seismic walkdowns and area walk-bys were conducted over the course of 3 weeks during September and October of 2012. Each morning, a pre-job brief was conducted with all personnel involved. This pre-job brief was used to outline the components and areas that would be walked down that day; ensure consistency between the teams; reinforce expectations; identify potential personnel safety issues specific to that day; identify any changes to plant configuration including plant risk; and allow team members to ask questions and share lessons learned in the field. SWEs brought cameras and tape measures on each walkdown; and brought flashlights, mirrors, and a pole for the camera on an as-needed basis.

7.1 SEISMIC WALKDOWNS

Seismic walkdowns were performed in accordance with Section 4 of the Guidance for all items on the SWEL (SWEL 1 plus SWEL 2), except for those determined to be inaccessible and were deferred (see Table 6-1). In order to document the results of the walkdown, a Seismic Walkdown Checklist (SWC) with the same content as included in Appendix C of the Guidance was created for each item. Additionally, photographs were taken of each item and included on the corresponding SWC.

Preliminary walkdowns were performed to identify inaccessible items. Items that were identified to be inaccessible on this walkdown were swapped out with items that were accessible and met the same selection criteria. Prior to performance of the walkdowns, documentation packages were developed that contained the SWC and other pertinent information including the location drawings, response spectra information, previous IPEEE and SQUG/A-46 seismic walkdown documentation, and anchorage drawings where applicable. The SWE teams carried all of the documentation packages into the plant during the seismic walkdowns.

Walkdown inspections focused on anchorages and seismic spatial interactions, but also included inspections for other potentially adverse seismic conditions. Anchorage, in all cases, was considered to specifically mean anchorage of the component to the structure. This definition included anchor bolts to concrete walls or floors, structural bolts to structural steel

and welds to structural steel or embedded plates. The walkdown team visually inspected welds for surface anomalies/defects such as cracks and corrosion in the weld and base metal. Other connections, such as flange bolts on in-line components were not considered as equipment anchorage because it is outside the scope of the Guidance. These bolts and connections were evaluated by the SWEs and any potential adverse seismic concerns were documented under "other adverse seismic conditions" rather than under "anchorage." By this methodology, components without attachments to the structure are not considered to have anchorage. Nevertheless, the attachment of these components to other equipment was evaluated and inspected for potentially adverse seismic conditions.

Cabinets/panels on the SWEL that could be inspected without presenting safety or operational hazards were opened during the walkdown. This allowed visual observation of internal anchorage to the structure (where present), as well as inspection for other adverse seismic conditions related to internal components (if it could be observed without more than minimally breaking the plane of the equipment opening). Note that minimally breaking the plane did not present any additional value for observing any anchorage or other seismic conditions and given the additional personnel and plant risk, the plane was not broken.

In addition to the general inspection requirements, at least 50% of the SWEL items with anchorage must have verification that the anchorage configuration was consistent with plant documentation. Of the 103 SWEL items, 56 were considered to have anchorage (i.e., removing in-line/line-mounted components). Of these 56 anchored components, 30 included anchorage configuration verification during walkdowns, which is equal to or greater than 50%. When anchorage configuration verification was conducted, the specific plant documentation used for comparison to the observed conditions was referenced on the SWC, and was included in the walkdown package brought into the field.

The results of the Seismic Walkdowns of each item of equipment on the SWEL (SWEL 1 plus SWEL 2) are documented on separate Seismic Walkdown Checklists (SWCs), which are included in Attachment C. A total of 111 SWCs are attached; 94 have a completion status marked "Y", 9 have a completion status marked "N", and 8 are blank. SWCs that are blank represent SWCs that were not used for a SWEL number. SWCs that are marked "N" are considered incomplete because an inspection could not be performed at the time of the walkdowns. The inspection could not be performed because the cabinet/panel could not be opened during the walkdown period or were within restricted areas during power generation. As seen in Attachment C, 94 completed SWCs represent the completed walkdowns of each SWEL item accessible during the walkdown period.

7.2 AREA WALK-BYS

Seismic area walk-bys were performed in accordance with Section 4 of the Guidance for all plant areas containing items on the SWEL (SWEL 1 plus SWEL 2), except for those SWEL items located in plant areas inaccessible during the walkdown period (see Section 6.3). Area walk-bys were not deferred when components had to be deferred simply to open cabinets/panels. A separate Area Walk-By Checklist (AWC) with the same content as that included in Appendix C of the Guidance was used to document the results of each area walk-by performed. Exactly like the SWC, photographs were taken of each area, and included on the corresponding AWC.

Area walk-bys were conducted once for plant areas containing more than one SWEL item. In cases where the room, or area, containing a component was very large, the area encompassed by the area walk-by was limited to a radius of approximately 35 ft around the subject equipment. The area included in the area walk-by is described on the respective AWC. Since some areas contained more than one SWEL item, there are fewer total AWCs than SWCs. A total of 30 area walk-bys was necessary to cover all plant areas containing at least one SWEL item.

The results of the Area Walk-Bys in areas of the plant near the equipment on the SWEL are documented on separate Area Walk-By Checklists (AWCs), which are included in Attachment D. A total of 30 AWCs are attached, which represents all of the areas containing a SWEL item. As many as 9 additional area walk-bys for components inside containment will be completed together with the deferred walkdowns for those inaccessible items (see Table 6-1).

The potentially adverse seismic conditions identified by the Seismic Walkdowns and Area Walk-Bys are described in Attachment E. For each potentially adverse condition identified, Attachment E also describes how the condition has been addressed and its current status.

8.0 LICENSING BASIS EVALUATIONS

During the course of the seismic walkdowns and area walk-bys, the objective of the SWE teams was to identify existing degraded, non-conforming, or unanalyzed plant conditions with respect to its current seismic licensing basis. The following sections summarize the process used to handle conditions that were identified, which conditions were found, and how they were treated for eventual resolution. Potentially adverse seismic conditions identified during the Seismic Walkdowns and Area Walk-Bys are summarized in Attachment E.

CONDITION IDENTIFICATION

When an unusual condition was observed by a SWE team in the field, the condition was noted on the SWC or AWC form and briefly discussed between the two SWEs to agree upon whether it was a potentially adverse seismic condition. The initial conclusions were based on conservative engineering judgment and by the training required for SWE qualification.

For conditions that were reasonably judged as insignificant to seismic response, a disposition was included on the SWC or AWC checklist and the appropriate question was marked "Y", indicating that no associated potentially adverse seismic condition was observed. Unusual or uncertain conditions were reported to site personnel for further resolution through the Corrective Action Program (CAP) (see Section 8.2). A total of 3 unusual conditions not related to seismic conditions were identified and entered into the CAP. These conditions were related to housekeeping (2) and routine maintenance (1).

For conditions that were judged to be potentially significant to seismic response, the condition was photographed, and the appropriate question on the SWC or AWC was marked "N" indicating that a potentially adverse seismic condition was observed. The condition was immediately reported to site personnel for further resolution and it was documented for reporting in Attachment E. A total of 10 potentially adverse seismic conditions were identified. Identified conditions were related to open S-hooks on overhead lighting (4), routine maintenance (3), minor corrosion (2), and non-conforming anchorage (1).

CONDITION RESOLUTION

Conditions observed during the seismic walkdowns and area walk-bys that were determined to be potentially adverse seismic conditions are summarized in Attachment E, including how each condition has been addressed and its current status. Each potentially adverse seismic condition was addressed by being entered into the CAP directly.

Unusual conditions that were not seismically significant were still entered into the CAP. Further resolution of these conditions is not tracked or reported as part of the NTTF 2.3

Seismic Walkdown program, except by noting the CR numbers generated on the applicable SWCs and AWCs.

8.1 LICENSING BASIS EVALUATIONS (LBE)

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

Based on the type of conditions found, and with ANO's low threshold for identifying conditions and entering them directly into the CAP, all identified potentially adverse seismic conditions were entered directly into the CAP; thus no LBEs were performed.

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 CAP. These were reviewed further in accordance with the plant's existing processes and procedures for an eventual disposition. Conditions entered into the CAP included two types of conditions identified:

- Seismically insignificant unusual conditions
- Potentially adverse seismic condition that bypasses a LBE

A total of 13 Condition Reports (CRs) were generated from the CAP as a result of the NTTF 2.3 Seismic Walkdown program. Of those generated, 3 were from unusual conditions not related to the seismic walkdowns. A total of 10 CRs were written for potentially adverse seismic conditions that were identified. CRs initiated for potentially adverse seismic conditions were evaluated using the operability/functionality determination process in the CAP. Since identification, all identified potentially adverse seismic conditions have either been repaired or determined to not be an adverse seismic condition. The CR numbers, current status, and resolution (where applicable and available) are summarized for these potentially adverse seismic conditions in Attachment E.

8.3 PLANT CHANGES

The CRs generated by the NTTF 2.3 Seismic Walkdown program are being resolved in accordance with the plant CAP process including operability evaluations, extent of condition evaluations and root cause analyses where applicable. Initial evaluations indicate that no

immediate plant changes are necessary beyond minor maintenance and routine housekeeping. Final and complete resolutions of the CRs for both seismically insignificant unusual conditions and potentially adverse seismic conditions will determine if future modifications to the plant are required. While no immediate plant modifications beyond minor maintenance or routine housekeeping have been identified as a result of the seismic walkdowns and walk-bys, various cases were found where degraded conditions or housekeeping issues were immediately addressed. Current status and resolutions (where applicable and available) for CRs related to potentially adverse seismic conditions are provided in Attachment E. As a result of the Seismic Walkdown program, no condition challenged the operability of any SSCs.

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 6 of the Guidance. The peer review included an evaluation of the following activities:

- review of the selection of the structures, systems, and components, (SSCs) that are included in the Seismic Walkdown Equipment List (SWEL);
- review of a sample of the checklists prepared for the Seismic Walkdowns and area walk-bys;
- review of licensing basis evaluations and decisions for entering the potentially adverse conditions in to the plant's Corrective Action Plan (CAP); and
- review of the final submittal report.

At least two members of the peer review team (see Table 4-2) were involved in the peer review of each activity. The team member with the most relevant knowledge and experience took the lead for particular peer review activities. A designated overall Peer Review Team Leader provided oversight related to the process and technical aspects of the peer review, paying special attention to the interface between peer review activities involving different members of the peer review team.

9.2 PEER REVIEW RESULTS SUMMARY

The following sections summarize the process and results of each peer review activity.

9.2.1 Seismic Walkdowns Equipment List Development

Peer review of the selection of SSCs for SWEL development was conducted by two peer reviewers. The lead reviewer for this peer review activity has knowledge and experience related to nuclear power plant design, operations, documentation, and SSCs; the other reviewer has extensive knowledge of the plant and was an integral part of the equipment selection process for ANO Unit 2. The peer review of the SWEL was conducted prior to the start of the seismic walkdowns, and was performed as follows:

- The draft SWEL (SWEL 1 + SWEL 2) was provided to the peer reviewers, along with the corresponding base lists (Base List 1, Base List 2, and SFP rapid drain-down list) and a written explanation of the equipment selection process was given (see Section 6.0).

- Each peer reviewer independently reviewed the equipment selection process, and resulting SWEL, in terms of the equipment selection process presented in Section 3 of the Guidance.
- The peer reviewers discussed their findings and generated a consolidated list of comments. General comments on the overall list, and how it represents adequate diversity, were documented on a peer review checklist based on Appendix F of the Guidance.
- Comments were provided to the Equipment Selection Personnel (see Table 4-1) which discussed process clarifications and suggested revisions.
- The final SWEL was provided to the peer reviewers to confirm acceptable resolution of all comments.

All of the peer review comments were addressed by the Equipment Selection Personnel, and the peer review team concluded that all comments were adequately addressed. The primary result of the peer review activities was that the Equipment Selection Personnel modified the documentation of their selection methodology. This provided further clarification of their rationale for selecting certain items, explaining how they were satisfying certain sample selection criteria. The peer review team concluded that these modifications would be of benefit to provide transparency and justification for the adequacy of the SWEL, and it resolved their specific questions about potential deficiencies.

During the process of conducting the walkdowns, SWE teams encountered a small number of components that were not accessible and therefore removed from the SWEL. In most cases, equivalent items that were determined to be accessible were added in their place and were walked down instead (see Section 7.0). The peer review team reviewed all changes made to the SWEL and determined that these changes had no impact on the adequacy and integrity of the SWEL, with respect to the Section 3 of the Guidance.

Upon completion of the SWEL peer review activities described, the peer review team concluded that the Equipment Selection Personnel developed a SWEL that adequately reflects the selection and screening process outlined in the Guidance. The peer reviewers confirmed that all SSCs in the SWEL are Seismic Category I components represent a diverse blend of different component types from critical systems and safety-related functions. The components on the list represent adequate risk significance. Additionally, SFP items were appropriately addressed. Specific examples of how the SWEL adequately represents the sample selection attributes

described in Section 3 of the Guidance are provided on the peer review checklist included as Attachment G.

The peer review of the SWEL is provided in Attachment G. Peer review comments are documented in Attachment H.

9.2.2 Seismic Walkdowns and Area Walk-Bys

Peer review of the seismic walkdowns and area walk-bys was also conducted by two peer reviewers, each of whom is a qualified SWE and has broad knowledge of seismic engineering applied to nuclear power plants. One of the peer reviewers participated in the seismic walkdown program for a different utility, and the other is engaged with the industry team which developed the Guidance. The peer reviews were performed at ANO Unit 1 concurrent with the conduct of walkdowns, at approximately 50% completion. One peer reviewer was physically present at ANO to observe the walkdown process first-hand. The peer review was performed as follows:

- The peer review team reviewed the walkdown packages (including checklists, photos, referenced drawings, etc.) for SWEL items already completed to ensure that the checklists had been completed in accordance with the Guidance. A total of 16 SWC and 4 AWC forms were reviewed, each representing approximately 15% of their respective totals. In the context of the Guidance, the peer review team considered the number of walkdown packages reviewed to be appropriate. The packages reviewed represent a variety of equipment types in various plant areas. Specific SWC forms reviewed are SWEL1-006, SWEL1-013, SWEL1-018, SWEL1-019, SWEL1-033, SWEL1-050, SWEL1-053, SWEL1-064, SWEL1-065, SWEL1-066, SWEL1-068, SWEL1-069, SWEL1-077, SWEL1-104, SWEL1-107, and SWEL1-108. Specific AWC forms reviewed are AWC-006, AWC-018, AWC-019, and AWC-021.
- While reviewing the walkdown packages, the peer reviewers conducted informal interviews with the SWEs, and asked clarifying questions to verify that they were conducting walkdowns and area walk-bys in accordance with the Guidance.
- The peer reviewer on-site held a meeting with all SWEs to provide feedback regarding the walkdown and walk-by packages reviewed, the informal interviews that were conducted, and to discuss potential modifications to the documentation packages in the context of the Guidance.

- The peer reviewer on-site accompanied each SWE team into the field and observed them performing a walkdown of a SWEL component and its associated area walk-by. During these observations, the peer reviewer asked clarifying questions to verify that the walkdown and walk-by process being used was in accordance with the Guidance. The items walked down under the observation of a peer reviewer are SWEL1-003 and SWEL1-034. The associated area walk-bys performed under the observation of a peer reviewer are AWC-017 and AWC-010.
- The peer reviewer on-site held a meeting with the SWE teams to provide feedback over the walkdown and walk-by observations, and to discuss how lessons learned from review of the walkdown packages had been incorporated into the walkdown process.

As a result of the peer review activities, the SWE teams modified their documentation process for filling out checklists. For example, SWE teams began to include additional clarifying details related to checklist questions marked "N/A" and for conditions that were observed but judged to be insignificant. The peer review team felt that these modifications would be beneficial for future reviews of checklists that are incorporated into the final report. These modifications were recommended following review of the walkdown and area walk-by packages, so the observation of walkdowns and area walk-bys allowed the SWEs to demonstrate that they understood the recommendations and have been incorporating them into the walkdown and area walk-by process. Previously completed checklists were revised by the SWEs to reflect lessons learned from the peer review process.

Upon completion of the walkdown and walk-by peer review activities described, the peer review team concluded that the SWE teams were familiar with and followed the process for conducting seismic walkdowns and area walk-bys in accordance with the Guidance. The SWE teams adequately demonstrated their ability to identify potentially adverse seismic conditions such as adverse anchorage, adverse spatial interaction, and to perform anchorage configuration verifications, where applicable. The SWEs also demonstrated the ability to identify potential seismically-induced flooding interactions and potential seismically-induced fire interactions such as the examples included in Section 4 of the Guidance. The SWEs demonstrated appropriate use of self-checks and peer checks. They discussed their observations with a questioning attitude, and documented the results of the seismic walkdowns and area walk-bys on the appropriate checklists.

Peer review comments are documented in Attachment H.

9.2.3 Licensing Basis Evaluations

No Licensing Basis Evaluations were performed for ANO Unit 1. Therefore, a peer review was not necessary for Licensing Basis Evaluations.

9.2.4 Submittal Report

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

10.0 REFERENCES

1. 10CFR50.54(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. Arkansas Nuclear One Unit 1 Power Station Updated Final Safety Analysis Report (UFSAR), Revision 24
4. Generic Letter No. 88-20, Supplement 4, Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
5. CALC-96-R-1006-02, Individual Plant Examination of External Events (IPEEE) for Seismic SMA at ANO-1, Rev. 0
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. EPRI Report NP-6041-SLR1, "A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Revision 1)"
9. ULD-0-TOP-03, Arkansas Nuclear One Upper Level Document ANO Unit 1 and Unit 2 Seismic, Revision 1
10. Correspondence 0CAN099201, J. J. Fisicaro to NRC, Response to Generic Letter 87-02, Supplement No. 1- SSER No.2 on SQUG Generic Implementation Procedure, Revision 2 and Generic Letter 88-20, Supplement No.4 - IPEEE for Severe Accident Vulnerabilities, Dated September 18, 1992
11. Correspondence 0CAN020003, NRC letter to MR. C. Randy Hutchinson, VP Operations, Entergy Operations, Inc., dated 2/7/2000, "Arkansas Nuclear One, Units 1 and 2, Plant-Specific Evaluation for USI A-46 Program Implementation"
12. 0CAN071201, Entergy's 120-Day Response to NRC Request for Information (RFI) Persuant to 10CRF50.54(F) Regarding the Seismic Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident
13. ULD-0-SYS-03, ANO Rev and Spent Fuel Storage, Spent Fuel Cooling, New and Spent Fuel Handling Systems, Rev. 5

11.0 ATTACHMENTS

ATTACHMENT A – IPEEE VULNERABILTIES TABLE

ATTACHMENT B – SEISMIC WALKDOWN EQUIPMENT LISTS

ATTACHMENT C – SEISMIC WALKDOWN CHECKLISTS (SWCs)

ATTACHMENT D – AREA WALK-BY CHECKLISTS (AWCs)

ATTACHMENT E – POTENTIALLY ADVERSE SEISMIC CONDITIONS

ATTACHMENT F – LICENSING BASIS EVALUATION FORMS

ATTACHMENT G – PEER REVIEW CHECKLIST FOR SWEL

ATTACHMENT H – PEER REVIEW COMMENT FORM

ATTACHMENT I – SEISMIC WALKDOWN ENGINEER TRAINING CERTIFICATES

Attachment A

IPEEE Vulnerabilities Table

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-01	B-61 & B-62 (Motor Control Centers) – These MCC's are next to each other, contain essential relays and were not bolted together at the time of the walkdown.	The MCC's will be bolted together.	The MCC's have been bolted together.	Y	May 1996
V-02	SV-1818 (Pressurizer Sampling Safety Valve) – This valve was mounted on a flexible 1" line, due to a loose stanchion support approximately 4' from the valve. This was identified as a caveat and an anchorage issue.	The support will be tightened.	The support has been tightened.	N	May 1996
V-03	CV-2613 & CV-2667 (Motor Operated Valves) – USI A-46 GERS Caveat 3 is violated for this valve. However, the valve meets the screening criteria for the IPEEE SMA.	The valve yoke will be evaluated for the USI A-46 program. No additional action is required for the IPEEE-SMA. Valve CV-2667 was also designated as a "relay only" valve and therefore it was eliminated from the list of SSEL equipment requiring a seismic evaluation.	No additional action is required for the IPEEE-SMA.	N	May 1996
V-04	C107 (Standby D-G1 Control Cabinet) – There is a 3/16" gap in one corner bolt of this cabinet.	The anchorage will be evaluated.	The anchorage was evaluated and determined to be acceptable.	Y	May 1996
V-05	Y-11 & Y-13 (Power Supply Inverter) – There is a 3" spacing of anchor bolts between one bolt and an adjacent bolt from another equipment item.	An anchorage evaluation will be performed.	An anchorage evaluation was performed and the anchorage was determined to be adequate.	Y	May 1996
V-06	NY-502 (Source Range Converter) – The small wall mounted panel with two bolts did not pass the bolt tightness check.	The panel anchorage will be evaluated.	The panel anchorage was evaluated and determined to be adequate.	Y	May 1996
V-07	C49 (CRDM AC Circuit Breaker Cabinet) – One corner of this cabinet was not bolted.	ANO-1 craft personnel will install a bolt in the corner.	ANO-1 craft personnel installed a bolt in the corner.	N	May 1996
V-08	X-92 (Transformer for PWR 0001-0012) Small transformer only bolted to a single Unistrut with two bolts.	ANO-1 craft personnel will install an additional Unistrut then bolt the transformer to it.	ANO-1 craft personnel installed an additional Unistrut then bolted the transformer to it.	Y	May 1996
V-09	D-17 (Battery Bank #1 (D07) Fuse and Relay Cabinet) – One bolt did not pass the bolt tightness check.	An anchorage evaluation will be performed.	An anchorage evaluation indicated that the remaining bolts were adequate to anchor this panel.	Y	May 1996
V-10	B-21, B-61 & B-62 (Motor Control Centers) – Could not determine during the walkdowns if there was sufficient anchorage.	Additional inspections by engineering will be performed. Anchorage for B-21 will require investigation by ANO-1 engineering.	Subsequent inspection by ANO-1 engineering revealed that there was sufficient anchorage for B-61 and B-62. Anchorage for B-21 was investigated and determined to be acceptable.	N	May 1996
V-11	C10, C13, C14, C16 & C18 (Control Cabinets) – It could not be determined during the walkdown if there was sufficient anchorage.	Missing nut on Panel C14 will be replaced.	Subsequent inspection indicated that there was sufficient anchorage. JO #00910196 replaced the missing nut on Panel C14.	N	May 1996
V-12	TV-7901A (EDG #1 VEF-24A, South Room Damper) – Small Damper. Attachment of the damper to the mounting bracket has only one screw, though three screws were intended.	ANO-1 craft personnel will install the missing screws (JO #00910196).	ANO-1 craft personnel installed the missing screws.	N	May 1996
V-13	C03, C04 & C09 (Control Board Cabinets) – Low box panels in the Control Room. It could not be determined during the walkdown if there was sufficient anchorage.	ANO-1 personnel will confirm there is sufficient anchorage present or not.	ANO-1 personnel subsequently confirmed there was anchorage present and sufficient for each item.	N	May 1996

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-14	K-4A & K-4B (Emergency Diesel Generators and Accessories) – These equipment items had light fixtures above with open S-hooks.	ANO MCS engineering will review areas of the plant where safety related equipment is located for the open S-hook issue. All lights with open S-hooks in areas of safety related equipment will be closed by ANO-1 craft personnel.	All lights with open S-hooks in areas of safety related equipment were closed by ANO-1 craft personnel.	Y	May 1996
V-15	B-56, B-51 & C-45 (Two Motor Control Centers and one Control Cabinet, respectively) – These equipment items had light fixtures above with open S-hooks.	ANO MCS engineering will review areas of the plant where safety related equipment is located for the open S-hook issue. All lights with open S-hooks in areas of safety related equipment will be closed by ANO-1 craft personnel.	All lights with open S-hooks in areas of safety related equipment were closed by ANO-1 craft personnel.	Y	May 1996
V-16	C-47, C-54 & C-28 (Control Cabinets) – These cabinets had unsecured filing cabinets adjacent to them that could topple during an earthquake.	These cabinets will be secured to prevent them from toppling during an earthquake. Cabinets C-54 & C-28 were not on the SSEL. However, this action will be completed for the identified issue.	These cabinets have been secured to prevent them from toppling during an earthquake.	N	May 1996
V-17	C-46 & C-48 (Control Cabinets) – These cabinets are next to one another but are not bolted together.	This cabinet pair will be left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern. Also, they were not on the final SSEL.	This cabinet pair was left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern.	N	May 1996
V-18	C-41 & C-28 (Control Cabinets) – These cabinets are next to one another but are not bolted together.	This cabinet pair will be left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern. Also, cabinet C-28 was not on the final SSEL.	This cabinet pair was left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern.	N	May 1996
V-19	C-26 & C-24 (Control Cabinets) – These cabinets are next to one another but are not bolted together.	This cabinet pair will be left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern. Also, cabinet C-24 was not on the final SSEL.	This cabinet pair was left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern.	N	May 1996
V-20	C-86 & C-34 (Control Cabinets) – These cabinets are next to one another but are not bolted together.	This cabinet pair will be left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern. Also, cabinet C-34 was not on the final SSEL.	This cabinet pair was left as is because the cabinets contain non-essential relays and therefore, the interaction was not a concern.	N	May 1996
V-21	C-540A & C-540B (EFIC Signal Conditioning Cabinet) – These cabinets are next to one another but are not bolted together.	These cabinets will be bolted together since they contain essential relays.	These cabinets have been bolted together since they contain essential relays.	N	May 1996
V-22	C-27 (Control Cabinet) – A compressed oxygen bottle rack was unsecured and next to this cabinet.	The bottle rack will either be secured or relocated.	The bottle rack was relocated.	N	May 1996
V-23	T-41 (Condensate Storage Tank (CST)) – There is an unanchored propane tank 15' east of the CST.	The unsecured tank, T-70, will be anchored.	T-70 has been anchored.	N	May 1996
V-24	CV-1432 (Air-Operated Control Valve) – A light fixture nearby could possibly damage the air line.	This condition will be evaluated to determine the consequences of a damaged airline.	This condition was evaluated, and it was determined that the valve was designed to fail safe.	N	May 1996
V-25	CV-2233, CV-2234 & CV-2214 (Air-Operated Control Valves) – An angle frame around the valve's cover plate with a 1/4" to 1/2" clearance could interact with the valves during an earthquake.	The frame cover plate will be widened (JR #9155413) to accommodate more movement.	The frame cover plate has been widened (JR #9155413) to accommodate more movement.	Y	May 1996
V-26	CV-3851 (Motor-Operated Control Valve) – The valve hand wheel is within 1/4" of a support and could be a potential damaging interaction during an earthquake.	The displacement of the valve will be checked for adequate clearance.	The displacement of the valve has been checked for adequate clearance.	N	May 1996

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-27	CV-3850 (Motor-Operated Control Valve) – The power cable for this valve is taut between the valve and a support and potentially could pull out during an earthquake.	Additional flexibility in the line will be provided.	Additional flexibility in the line has been provided.	Y	May 1996

Prepared by: Sean Smolarek Sean Smolarek Date: 9/19/2012

Attachment B

Seismic Walkdown Equipment Lists

Table 1 – Base List 1

Table 2 – SWEL 1

Table 3 – Base List 2

Table 4 – SWEL 2

Seismic Walkdown Equipment List Approval

Prepared by: _____ Date: 11/15/12
Equipment Selection Personnel

Reviewed by: RF Cobb, Jr Date: 11-15-12
Peer Reviewer

Concurrence by: _____ Date: 11-15-12
Operations Personnel

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	**0**	**M-112A**	**M-112A**	**EDG K-4A EXHAUST MUFFLER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	0	M-112B	M-112B	EDG K-4B EXHAUST MUFFLER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	0	CS-275	CS-275	CONDENSATE SUPPLY T-41 TO EFW SUCTION	Yes	No	Yes	No	N/A	I	-	No					
1	**0**	**CV-6601A**	**CV-6601A**	**FW TURBINE K-3 TRIP/THROTTLE VALVE**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	0	CV-6601B	CV-6601B	K-3 GOVERNOR SERVO CONTRL VLV	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	**0**	**K-3**	**K-3**	**TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	**0**	**F-57A**	**F-57A**	**P36A LO CLR E39A DISCH STR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**	**X**	**X**	**X**	**X**	
1	0	F-2	F-2	SEAL INJ FILTER	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	0	P-32A	P-32A	RC PUMP	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	0	P-32B	P-32B	RC PUMP	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	0	P-32C	P-32C	RC PUMP	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	0	P-32D	P-32D	RC PUMP	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	0	F-57C	F-57C	P36C LO CLR E39C DISCH STR	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	0	SG-1	SG-1	SLUICE GATE	Yes	No	Yes	No	N/A	O	T, H	No	X		X	X	X
1	0	SG-5	SG-5	SLUICE GATE MOTOR	Yes	No	Yes	No	N/A	O	T, H	No	X		X	X	X
1	0	SG-2	SG-2	SLUICE GATE MOTOR	Yes	No	Yes	No	N/A	O	T, H	No	X	X	X	X	X
1	0	SG-7	SG-7	SLUICE GATE	Yes	No	Yes	No	N/A	O	T, H	No	X	X	X	X	X
1	0	F-7C	F7-C	TRAVELING WTR SCREEN ASSEMBLY	Yes	No	Yes	No	N/A	I	T	No	X				
1	0	F-7D	F7-D	TRAVELING WTR SCREEN ASSEMBLY	Yes	No	Yes	No	N/A	I	T	No	X				

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	0	F-7G	F7-G	TRAVELING WTR SCREEN ASSEMBLY	Yes	No	Yes	No	N/A	I	T	No	X				
1	0	F-7F	F7-F	TRAVELING WTR SCREEN ASSEMBLY	Yes	No	Yes	No	N/A	I	T	No	X				
1	1	B-56	B-56	MOTOR CONTROL CENTER	Yes	No	Yes	No	V-15	I	T	No	X	X	X	X	X
1	1	B-55	B-55	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	1	B-52	B-52	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	1	B-53	B-53	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	1	B-57	B-57	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	1	B-51	B-51	MOTOR CONTROL CENTER	Yes	No	Yes	No	V-15	I	T	No	X	X	X	X	X
1	1	B-65	B-65	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	1	B-61	B-61	MOTOR CONTROL CENTER	Yes	No	Yes	No	V-10	I	-	No	X	X	X	X	X
1	1	B-62	B-62	MOTOR CONTROL CENTER	Yes	No	Yes	No	V-10	I	-	No	X	X	X	X	X
1	1	B-63	B-63	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X
1	**1**	**D-15**	**D-15**	**MOTOR CONTROL CENTER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**		**X**		**X**	
1	1	D-25	D-25	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	1	B-12	B12	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	1	B-22	B22	MOTOR CONTROL CENTER	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	1	B-21	B21	MOTOR CONTROL CENTER	Yes	No	Yes	No	V-10	I	T	No		X		X	
1	2	E-11	E11	DG1 EXCITATION CABINET	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**2**	**E-21**	**E21**	**DIESEL GEN NO. 2 EXCIT EQUIP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	2	B-5	B-5	480V LOAD CENTER BUS B-5	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**2**	**B-6**	**B-6**	**480V LOAD CENTER BUS B-6**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	2	C65	C65	CRDM GROUP 5 REGULATING SUPPLY B CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	2	C67	C67	CRDM GROUP 6 REGULATING SUPPLY B CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	2	C69	C69	CRDM GROUP 7 REGULATING SUPPLY B CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	2	C71	C71	CRDM GROUP 8 REGULATING SUPPLY B CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	2	C73	C73	CRDM AUXILIARY SUPPLY B CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	3	A-3	A-3	4160 VOLT FOR BUS A-3	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	3	A-4	A-4	4160 VOLT FOR BUS A-4	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	3	H-11	H11	REACTOR COOLANT PUMP P-32A BREAKER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	3	H-12	H12	REACTOR COOLANT PUMP P-32C BREAKER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	3	H-21	H21	REACTOR COOLANT PUMP P-32D BREAKER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	3	H-22	H22	REACTOR COOLANT PUMP P-32B BREAKER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-5	X-5	LOAD CENTER TRANSF X5	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**4**	**X-52**	**X-52**	**Y-03 POWER SUPPLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	X	X	X	X	X
1	4	X-51	X-51	INSTRUMENT AC TRANSF	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-6	X-6	LOAD CENTER TRANSF X6	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-62	X-62	Y-04 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-61	X-61	INSTRUMENT AC TRANSF	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic - 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	4	X-7901A	X7901A	480/120V TRANSFORMER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-7901B	X7901B	480/120V TRANSFORMER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-7902A	X7902A	480/120V TRANSFORMER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-7902B	X7902B	480/120V TRANSFORMER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	4	X-92	X-92	ISOL TRANS (ANN. SUPPLY)	Yes	No	Yes	No	V-08	I	-	No	X	X	X	X	X
1	**5**	**P-16A**	**P-16A**	**EMER DIESEL FUEL TRANSFER PUMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	5	A-3	P-105A	DG1 FUEL PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**5**	**P-104A**	**P-104A**	**DG1 FUEL PRIMING PUMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	5	P-102A-1	P-102A1	CLNG WTR PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-102A-2	P-102A2	CLNG WTR PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-106A-2	P-106A2	AC L.O. SOAK BACK PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-106A-1	P-106A1	DC L.O. SOAK BACK PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-106A-3	P-106A3	AC LO SOAK BACK PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-107A	P-107A	L.O.SCAVENGING PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-109A	P-109A	DG1 PISTON COOLING L.O. PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**5**	**P-108A**	**P-108A**	**MAIN L.O. PUMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	**5**	**P-16B**	**P-16B**	**EMER DIESEL FUEL TRANSFER PUMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	5	P-105B	P-105B	FUEL PUMP FOR 'B' EDG	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-104B	P-104B	FUEL PRIMING PUMP 'B EDG	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	5	P-102B-1	P-102B1	CLNG WTR PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-102B-2	P-102B2	CLNG WTR PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**5**	**P-106B-2**	**P-106B2**	**AC L.O. SOAK BACK PUMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	5	P-106B-1	P-106B1	DC L.O. SOAK BACK PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-106B-3	P-106B3	AC LO SOAK BACK PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**5**	**P-107B**	**P-107B**	**L.O.SCAVENGING PUMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	5	P-109B	P-109B	PISTON COOLING L.O. PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	5	P-108B	P-108B	MAIN L.O. PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**5**	**P-7A**	**P-7A**	**EMERGENCY F.W. PUMP (K-3 TURBINE DRIVEN)**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	5	P-7B	P-7B	EMERGENCY F.W. PUMP	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	5	P-36A	P-36A	PRIMARY MAKEUP PUMP	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	5	P-88A	P-88A	P36A PRI MU PP MAIN LO PP	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	
1	5	P-64A	P-64A	P-36A HPI PUMP AUX LUBE OIL PUMP	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	
1	5	P-36C	P-36C	PRIMARY MAKEUP PUMP	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	5	P-88C	P-88C	P36C PRI MU PP MAIN LO PP	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	5	P-64C	P-64C	P36C PRI MU PP AUX LO PP	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	5	P-34B	P-34B	'B' LOOP DH REMOVAL PUMP	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	5	P-34A	P-34A	'A' LOOP DH REMOVAL PUMP	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	6	P-240	P-240	K-3 SHAFT DRIVEN OIL PUMP	Yes	No	Yes	No	N/A	I	-	No		X		X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	6	P-4A	P-4A	'A' SERVICE WATER PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	6	P-4B	P-4B	B' SERVICE WATER PUMP	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	6	P-4C	P-4C	'C' SERVICE WATER PUMP	Yes	No	Yes	No	N/A	I	T, H	No	X	X	X	X	X
1	**7**	**CV-5218**	**CV-5218**	**KMA-3/4 AIR RELAY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	7	CV-5233	CV-5233	KMA-1/2 AIR RELAY	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	7	CV-5237	CV-5237	KMB-3/4 AIR RELAY	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**7**	**CV-5239**	**CV-5239**	**KMB-1/2 AIR RELAY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	7	CV-2618	CV-2618	SG B STEAM DUMP TO ATMOS	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	**7**	**PSV-2684**	**PSV-2684**	**MAIN STEAM RELIEF**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	7	PSV-2685	PSV-2685	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2686	PSV-2686	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2687	PSV-2687	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2688	PSV-2688	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2689	PSV-2689	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2690	PSV-2690	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2691	PSV-2691	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2699	PSV-2699	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2698	PSV-2698	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2697	PSV-2697	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	7	PSV-2696	PSV-2696	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2695	PSV-2695	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2694	PSV-2694	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2693	PSV-2693	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	PSV-2692	PSV-2692	MAIN STEAM RELIEF	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	7	CV-2668	CV-2668	ATMOS. DUMP "A"	Yes	No	Yes	No	N/A	I		No		X		X	
1	7	CV-1207	CV-1207	SEAL INJECTION CONTROL VALVE	Yes	No	Yes	No	N/A	I	-	Yes					
1	**7**	**CV-1432**	**CV-1432**	**'B' DH CLR E35B BYP**	**Yes**	**No**	**Yes**	**No**	**V-24**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	**7**	**CV-1433**	**CV-1433**	**DH CLR E-35A BYPASS**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	7	CV-1667	CV-1667	RB LP N2 SUPPLY ISOL VALVE	Yes	No	Yes	No	N/A	I	-	No					X
1	**7**	**CV-1052**	**CV-1052**	**QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**					**X**
1	7	CV-7401	CV-7401	RB PURGE OUTLET	Yes	No	Yes	No	N/A	O	T, H	No					X
1	7	CV-7402	CV-7402	RB PURGE INLET	Yes	No	Yes	No	N/A	O	T, H	No					X
1	7	CV-1845	CV-1845	QUENCH TK GAS SPACE OUTSIDE RB ISOL	Yes	No	Yes	No	N/A	I	-	Yes					X
1	**7**	**CV-2214**	**CV-2214**	**RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL**	**Yes**	**No**	**Yes**	**No**	**V-25**	**I**	**-**	**Yes**					**X**
1	**7**	**CV-2233**	**CV-2233**	**RCPSEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL**	**Yes**	**No**	**Yes**	**No**	**V-25**	**I**	**-**	**Yes**					**X**
1	**7**	**CV-2234**	**CV-2234**	**RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL**	**Yes**	**No**	**Yes**	**No**	**V-25**	**I**	**-**	**No**					**X**
1	7	CV-4804	CV-4804	RBVH ISOL TO T-17 OUTSIDE RB	Yes	No	Yes	No	N/A	I	-	No					X
1	7	CV-6202	CV-6202	CH WS RB INLET ISO	Yes	No	Yes	No	N/A	I	-	No					X

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										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	7	CV-6203	CV-6203	CH WS RB OUTLET ISO	Yes	No	Yes	No	N/A	I	-	No					X
1	7	PSV-1002	PSV-1002	PZR CODE SAFETY	Yes	No	Yes	No	N/A	I	-	No		X	X	X	
1	7	PSV-1001	PSV-1001	PZR CODE SAFETY	Yes	No	Yes	No	N/A	I	-	No		X	X	X	
1	7	PSV-1000	PSV-1000	PZR ERV	Yes	No	Yes	No	N/A	I	-	No		X	X	X	
1	7	CV-3814	CV-3814	SW OUTLET TO VCC-2A AND 2B	Yes	No	Yes	No	N/A	I	-	No					X
1	7	CV-3840	CV-3840	LPI/DECAY HEAT PUMP BRG CLR E-50A INLET	Yes	No	Yes	No	N/A	I	-	No			X	X	X
1	7	CV-3815	CV-3815	VCC-2C/D OUTLET	Yes	No	Yes	No	N/A	I	-	No					X
1	7	CV-3841	CV-3841	LPI/DECAY HEAT PP BRG CLR E-50B INLET	Yes	No	Yes	No	N/A	I	-	No			X	X	X
1	**9**	**VEF-24A**	**VEF-24A**	**DG1 ROOM EXHAUST FAN**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T, H**	**No**	**X**	**X**	**X**	**X**	**X**
1	9	VEF-24B	VEF-24B	DG1 ROOM EXHAUST FAN	Yes	No	Yes	No	N/A	I	T, H	No	X	X	X	X	X
1	9	VEF-24C	VEF-24C	DG2 ROOM EXHAUST FAN	Yes	No	Yes	No	N/A	I	T, H	No	X	X	X	X	X
1	9	VEF-24D	VEF-24D	AX/BL DSL EF FN	Yes	No	Yes	No	N/A	I	T, H	No	X	X	X	X	X
1	10	VFP-26A	VFP-26A	DG1 INTAKE COMBUSTION AIR FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**10**	**VFP-26B**	**VFP-26B**	**DG2 INTAKE COMBUSTION AIR FILTER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	10	VCC-2A	VCC-2A	RB SERVICE WATER COOLER COIL	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VSF-1A	VSF-1A	RX/BLD COOLER FAN ASSEMBLY	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VCC-2B	VCC-2B	RB SERVICE WATER COOLER COIL	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VSF-1B	VSF-1B	RX/BLD COOLER FAN ASSEMBLY	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VCC-2C	VCC-2C	RB SERVICE WATER COOLER COIL	Yes	No	Yes	No	N/A	I	-	No					X

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	**10**	**VSF-1C**	**VSF-1C**	**RX/BLD COOLER FAN ASSEMBLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	**10**	**VCC-2D**	**VCC-2D**	**RB SERVICE WATER COOLER COIL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	10	VSF-1D	VSF-1D	RX/BLD COOLER FAN ASSEMBLY	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VUC-7A	VUC-7A	HPI PUMP RM COOLER VUC-7A	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VUC-7B	VUC-7B	HPI PUMP RM COOLER VUC-7B	Yes	No	Yes	No	N/A	I	-	No					X
1	10	VUC-7C	VUC-7C	HPI PUMP RM COOLER VUC-7C	Yes	No	Yes	No	N/A	I	-	No					X
1	13	KMA-3	KMA-3	K-4A AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	KMA-4	KMA-4	K-4A AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	KMA-2	KMA-2	K-4A AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**13**	**KMA-1**	**KMA-1**	**K-4A AIR START MOTOR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	13	KMB-3	KMB-3	K-4B AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	KMB-4	KMB-4	K-4B AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	KMB-2	KMB-2	K-4B AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	KMB-1	KMB-1	K-4B AIR START MOTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	TV-7901A	TV-7901A	EDG #1 VEF-24A S. RM. DAMPER	Yes	No	Yes	No	V-12	I	T	No	X	X	X	X	X
1	**13**	**TV-7901B**	**TV-7901B**	**EDG #1 VEF-24B N. ROOM DAMPER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	13	TV-7902A	TV-7902A	EDG #2 VEF-24C S. RM. DAMPER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	13	TV-7902B	TV-7902B	EDG #2 VEF-24D N. ROOM DAMPER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	14	RS-3	RS-3	120 VAC DISTRIBUTION PNL RS3	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	**14**	**RS-2**	**RS-2**	**120 VAC DISTRIBUTION PNL RS2**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	14	RS-4	RS-4	120 VAC DISTRIBUTION PNL RS4	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	14	D-11	D-11	125 VDC DISTRIBUTION PNL NO 1 D11	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	14	RA-1	RA-1	125 VDC DISTRIBUTION PNL RA1	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	14	D-21	D-21	125 VDC DISTRIBUTION PNL NO 2 D21	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**14**	**RA-2**	**RA-2**	**125 VDC DISTRIBUTION PNL RA2**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	**15**	**D-07**	**D-07**	**125V DC STATION BATTERY BANK TO BUS D01**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	15	D-06	D-06	125V DC STATION BATTERY BANK TO BUS D02	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**16**	**Y-03**	**Y-03**	**Y-03 INCOMING BREAKER (200 AMP)**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	16	Y-1	Y-01	SEE Y-01 PANEL	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	16	Y-04	Y-04	Y-04 INCOMING BREAKER (200 AMP)	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	16	Y-02	Y-02	120V INSTRUMENT PANEL AC	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X
1	16	Y-11	Y-11	Y11 INVERTER	Yes	No	Yes	No	V-05	I	T	No	X	X	X	X	X
1	16	Y-13	Y-13	Y13 INVERTER	Yes	No	Yes	No	V-05	I	T	No	X	X	X	X	X
1	16	Y-22	Y-22	Y22 INVERTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	16	Y-24	Y-24	Y24 INVERTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	K-4A	K-4A	EMERGENCY DIESEL GENERATOR ASSEMBLY	Yes	No	Yes	No	V-14	I	T	No	X	X	X	X	X
1	17	K-4B	K-4B	EMERG. DIESEL GEN. & ACCESSORIES ASSEMBLY	Yes	No	Yes	No	V-14	I	T	No	X	X	X	X	X
1	**17**	**F-50A**	**F-50A**	**DG1 FUEL PUMP SUCTION STRAINER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic I?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	17	F-45A	F-45A	FUEL PUMP DISCH FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-53A	F-53A	SKID MOUNTED TURBINE FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-46A	F-46A	LO SCAVENGING PUMP FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-48A	F-48A	LO COOLER FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-51A	F-51A	LO PUMP FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-52A	F-52A	ENGINE MOUNTED TURBO FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	M-225A	M-225A	DG1 TURBOCHARGER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**17**	**M-227A**	**M-227A**	**DG1 CRANKCASE EJECTOR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	17	M-228A	M-228A	EDG K-4A GOVERNOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**17**	**F-50B**	**F-50B**	**FUEL PUMP SINLEX STR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	17	F-45B	F-45B	FUEL PUMP DISCH FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-53B	F-53B	SKID MOUNTED TURBINE FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-48B	F-48B	LO COOLER FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-46B	F-46B	LO SCAVENGING FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	F-51B	F-51B	LO PUMP FILTER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**17**	**F-52B**	**F-52B**	**DG2 ENGINE MOUNTED TURBO FILTER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	**17**	**M-225B**	**M-225B**	**DG2 TURBOCHARGER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	17	M-227B	M-227B	DG2 CRANKCASE EJECTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	M-228B	M-228B	EDG K-4B GOVERNOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

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										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	17	M-226A1	M226A1	DG1 STARTIG AIR LUBRICATOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	M-226A2	M226A2	DG1 STARTING AIR LUBRICATOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	M-226B1	M226B1	DG2 STARTING AIR LUBRICATOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	17	M-226B2	M226B2	DG2 STARTING AIR LUBRICATOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**18**	**LSL-5206**	**LSL-5206**	**LOW LEVEL DIESEL SWITCH**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	18	LSH-5205	LSH-5205	T30A LEVEL HIGH	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**18**	**SS-5211**	**SS-5211**	**DG1 OVERSPEED TRIP SWITCH**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	18	SS-5210	SS-5210	DG1 GOVERNOR SPEED SENSOR	Yes	No	Yes	Yes	N/A	I	T	No	X	X	X	X	X
1	18	SE-5210	SE-5210	K-4A MAGNETIC PICKUP SPEED DETECTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	PS-5270	PS-5270	DG1 MAIN LO PUMP P-108A LO PRESS STARTING INTERLOCK	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	PSL-5270	PSL-5270	DG1 MAIN LO PP P-1?8A LOW DISCH PRESS S/D	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	PS-5283	PS-5283	K4A CRANKCASE PRESS HI	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	LSL-5209	LSL-5209	T30B LOW LEVEL SWITCH	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	LSH-5210	LSH-5210	T30B HIGH LEVEL SWITCH	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	SS-5221	SS-5221	DG2 OVERSPEED TRIP SWITCH	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	SS-5220	SS-5220	DG2 GOVERNOR SPEED SENSOR	Yes	No	Yes	Yes	N/A	I	T	No	X	X	X	X	X
1	**18**	**SE-5220**	**SE-5220**	**SPEED DETECTOR FOR K-4B**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	18	PS-5271	PS-5271	DG2 P-108B LOW PRESS STARTING INTERLOCK	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	PSL-5271	PSL-5271	DG2 P-108B LOW DISCH PRESS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	18	PS-5284	PS-5284	K4B CRANKCASE PRESS HI	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	D17	D17	BATTERY BANK #1 (D07) FUSE & RELAY CABINET	Yes	No	Yes	No	V-10	I	T	No	X	X	X	X	X
1	18	D13	D13	D07 MANUAL DISCONNECT	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	D16	D16	BATTERY BANK #2 (D06) FUSE & RELAY CABINET	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	D14	D14	D06 MANUAL DISCONNECT	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	C47	C47	NNI AUX CONTROL SYS (X-PWR)	Yes	No	Yes	No	V-16	I	T	No	X	X	X	X	X
1	18	LT-4204	LT-4204	CST T-41B LEVEL TRANSMITTER	Yes	No	Yes	No	N/A	O	H, T	No		X		X	
1	18	LT-4205	LT-4205	CST T-41B LEVEL TRANSMITTER	Yes	No	Yes	No	N/A	O	H, T	No		X		X	
1	18	ZS-2802	ZS-2802	SEE CV-2802 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	ZS-2806	ZS-2806	SEE CV-2806 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	LT-2617	LT-2617	STM GEN E24B LOW RANGE LEVEL	Yes	No	Yes	No	N/A	I	-	Yes		X		X	
1	18	LT-2619	LT-2619	STM GEN E24B UPPER RNG LEVEL	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	PT-2667A	PT-2667A	E24B MAIN STM PRESS-MSLI	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	18	ZS-6602	ZS-6602	EFW TURB K3 OVERSPEED TRIP	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	ZS-2800	ZS-2800	SEE CV-2800 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	ZS-2803	ZS-2803	SEE CV-2803 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	PT-2812	PIT-2812	CFW EFWP P7B DSCHG	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	18	LT-2668	LT-2668	SG E-24A LOW RANGE LEVEL	Yes	No	Yes	No	N/A	I	-	Yes		X		X	
1	18	LT-2670	LT-2670	STM GEN E24A UPPER RANGE LEVEL	Yes	No	Yes	No	N/A	I	-	Yes		X		X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	18	PT-2618A	PT-2618A	E24A MAIN STM PRESS-MSLI	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	18	PT-2405	PT-2405	RB PRESS (ESAS #1)	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X
1	18	PT-2406	PT-2406	RB PRESS ESAS 2 C89	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X
1	18	PT-2407	PT-2407	RB PRESS (ESAS #3)	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X
1	18	LT-1411	LT-1411	BWST LVL XMTR	Yes	No	Yes	No	N/A	O	H, T	Yes	X	X	X	X	X
1	18	LT-1421	LT-1421	BWST LVL XMTR	Yes	No	Yes	No	N/A	O	H, T	Yes	X	X	X	X	X
1	18	ZS-1050	ZS-1050	SEE CV-1050 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	18	ZS-1410	ZS-1410	SEE CV-1410 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	18	R-01	R01	LOCAL INSTRUMENT RACK	Yes	No	Yes	No	N/A	I	-	No					
1	18	ZS-1273	ZS-1273	SEE CV-1273 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	18	ZS-1272	ZS-1272	SEE CV-1272 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	18	ZS-1271	ZS-1271	SEE CV-1271 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	18	ZS-1270	ZS-1270	SEE CV-1270 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	18	ZS-1274	ZS-1274	SEE CV-1274 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	18	LT-1002	LT-1002	PZR LVL	Yes	No	Yes	No	N/A	I	-	Yes		X	X		
1	18	PT-1041	PT-1041	'B' LOOP RCS PRESS (WR)	Yes	No	Yes	No	N/A	I	-	Yes	X	X		X	
1	18	PT-1042	PT-1042	'B' LOOP RCS PRESS (WR)	Yes	No	Yes	No	N/A	I	-	Yes	X	X		X	
1	18	PT-1010	PT-1010	'A' LOOP RCS PRESS (LOW RANGE)	Yes	No	Yes	No	N/A	I	-	Yes	X	X		X	
1	18	NE-0509	NE-0509	POWER RANGE NEUTRON DETECTOR	Yes	No	Yes	No	N/A	I	-	Yes	X				

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	18	NE-0510	NE-0510	POWER RANGE NEUTRON DETECTOR	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	18	NE-0511	NE-0511	POWER RANGE NEUTRON DETECTOR	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	18	NE-0512	NE-0512	POWER RANGE NEUTRON DETECTOR	Yes	No	Yes	No	N/A	I	-	Yes	X				
1	18	NY-501	NY-501	SOURCE RANGE FLUX SIGNAL AMP-RED CHANNEL	Yes	No	Yes	No	N/A	I	T	No	X				
1	18	NE-0501	NE-501	SOURCE RANGE NEUTRON DETECTOR ASSEMBLY	Yes	No	Yes	No	N/A	I	-	No	X				
1	18	NY-502	NY-502	SOURCE RANGE FLUX SIGNAL AMP-GREEN CHANNEL	Yes	No	Yes	No	N/A	I	T	No	X				
1	18	NE-0502	NE-502	SOURCE RANGE NEUTRON DETECTOR ASSEMBLY	Yes	No	Yes	No	N/A	I	-	No	X				
1	18	K1636	K1636	SERVICE WATER BAY LEVEL LO REFLASH ANNUNCIATOR	Yes	No	Yes	No	N/A	I	T	No	X				
1	18	LE-3664	LE-3664	P-4A SER WTR BAY LVL DETECTOR	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	18	LITS-3664	LITS-3664	P-4A SW BAY LEVEL	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	18	ZS-3850	ZS-3850	SEE CV-3850 VALVOP FOR INFO, INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	No				X	
1	18	LE-3668	LE-3668	P-4C SER WTR BAY LVL DETECTOR	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	18	LITS-3668	LITS-3668	P-4C SW BAY LEVEL	Yes	No	Yes	No	N/A	I	T	No	X	x	X	X	X
1	18	ZS-3851	ZS-3851	SEE CV-3851 VALVOP FOR INFO INTERNAL SWITCH	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	19	TS-7901	TS-7901	SOUTH EDG RM EXH FAN VEF-24A THERMOSTAT	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	19	TS-7902	TS-7902	SOUTH EDG RM EXH FAN VEF-24B THERMOSTAT	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	19	TS-7903	TS-7903	H&V EMGCY D-G RM FAN C	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**19**	**TS-7904**	**TS-7904**	**H&V EMGCY D-G RM FAN D**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	19	TE-1002A	TE-1002A	PZR TEMP	Yes	No	Yes	No	N/A	I	-	No		X	X		

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	19	TE-1001A	TE-1001A	PZR TEMP	Yes	No	Yes	No	N/A	I	-	No		X	X		
1	19	TE-1111	TE-1111	'A' LOOP TH TEMP	Yes	No	Yes	No	N/A	I	-	No	X	X		X	
1	19	TE-1115	TE-1115	'A' LOOP TC TEMP (P-32D)	Yes	No	Yes	No	N/A	I	-	No	X	X		X	
1	19	TE-1147	TE-1147	'B' LOOP TC TEMP (P-32A)	Yes	No	Yes	No	N/A	I	-	No	X	X		X	
1	**19**	**TE-1139**	**TE-1139**	**'B' LOOP TH TEMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**	**X**	**X**		**X**	
1	**20**	**C10**	**C10**	**VERT BD - ELEC AUX**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	20	C107	C107	STANDBY D-G1 CONT	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C108	C108	STANDBY D-G2 CONT	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-5211	HS-5211	P16A FUEL TRANSFER PUMP HS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-0140	HS-0140	LOCKOUT FOR DIESEL GENERATOR #1	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**20**	**PB-0144**	**PB-0144**	**START BUTTON FOR DIESEL GENERATOR #1**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	20	HS-5235	HS-5235	DG1 LOCAL SPEED CONTROL	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	PB-0143	PB-0143	STOP BUTTON FOR DIESEL GENERATOR #1	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-5212	HS-5212	P16B FUEL TRANSFER PUMP HS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-0141	HS-0141	LOCKOUT FOR DIESEL GENERATOR #2	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	PB-0146	PB-0146	START BUTTON FOR DIESEL GENERATOR #2	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-5245A	HS-5245A	*SEE CS2-DG2 HANDSW FOR INFO*	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	PB-0145	PB-0145	STOP BUTTON FOR DIESEL GENERATOR #2	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C09	C09	CONTROL BOARD, PLANT AUXILIARY SYSTEMS	Yes	No	Yes	No	V-13	I	T	No	X	X	X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	20	C13	C13	VERTICAL BOARD, REACTOR RODS, ICS. & FEEDWATER	Yes	No	Yes	No	V-11	I	T	No	X	X	X	X	X
1	20	C23	C23	VERTICAL BOARD, BOP POWER SUPPLIES & SIGNAL CNV	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C27	C27	VERTICAL BOARD, BOP POWER SYPPLIES	Yes	No	Yes	No	V-22	I	T	No	X	X	X	X	X
1	20	C30	C30	VER BD-RELAYS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C37-1	C37-1	RELAY BOX-CHANNEL 1-IC RCP MOTOR INTER ISO VLV	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C37-2	C37-2	RELAY BOX-CHANNEL 1- QUENCH TK CNDNSTE ISO VV	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C37-3	C37-3	RELAY BOX-CHANNEL 1-NITRO SYS ISOL VLV CV-1667	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C37-4	C37-4	RELAY BOX-CHANNEL 1-CHLD WATER ISOL VLV CV6202	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**20**	**C539A**	**C539A**	**EFIC SIGNAL CONDITIONING CABINET**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**		**X**		**X**	
1	20	C539B	C539B	EFIC SIGNAL CONDITIONING CABINET	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	C540A	C540A	EFIC SIGNAL CONDITIONING CABINET	Yes	No	Yes	No	V-21	I	T	No		X		X	
1	20	C540B	C540B	EFIC SIGNAL CONDITIONING CABINET	Yes	No	Yes	No	V-21	I	T	No		X		X	
1	20	PWR-8031	PWR-8031	MAIN CONTROL PANEL POWER SUPPLY 1	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	PWR-8032	PWR-8032	MAIN CONTROL PANEL POWER SUPPLY 2 - STANDBY	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	**20**	**LY-4204A**	**LY-4204A**	**CST T41B LEVEL RED I/V**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**		**X**		**X**	
1	20	LY-4204B	LY-4204B	CST T41B LEVEL RED V/I	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	LRS-4204	LRS-4204	CST T41B LEVEL RECORDING SW	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	LY-4205A	LY-4205A	CST T41B LEVEL GREEN I/V	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	LY-4205B	LY-4205B	CST T41B LEVEL GREEN V/I	Yes	No	Yes	No	N/A	I	T	No		X		X	

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	LIS-4205	LIS-4205	CST T41B LVL IND. SW	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	HS-2802	HS-2802	EMERG FEED P7A SUCTION	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	**20**	***PI-2811A***	***PI-2811A***	***EFWP P-7A DISCH PRESS***	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	20	LR-2617	LR-2617	SG B LEVEL RECORDER LOWER RANGE (EFIC)	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	LR-2619	LR-2619	SG B LEVEL RECORDER UPPER RANGE (EFIC)	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	HS-2619	HS-2619	STM GEN B ATMOS DUMP ISO VLV	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	**20**	**PY-2667A-1**	**PY-2667-A1**	**I/V CONVERTER STM GEN B PRESS**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**		**X**		**X**	
1	20	PY-2667A-2	PY-2667-A2	I/V CONVERTER STM GEN B PRESS	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	PR-2667A	PR-2667A	S/G B PRESSURE RECORDER	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	HS-2613	HS-2613	EFW PUMP TURBINE K-3 STEAM ADMISSION VALVE CV-2613	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	HS-2800	HS-2800	EMERG FEED P7B SUCTION	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	PIS-2812	PIS-2812	EFW P7B DISCH PRESS	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	HS-2670	HS-2670	EFW ISOL P7B TO E24A	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	**20**	**PB-2670**	**PB-2670**	**EMERG EW TO SG A FROM P7B VLV CV-2670**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**		**X**		**X**	
1	20	LR-2668	LR-2668	SG A LEVEL RECORDER LOWER RANGE (EFIC)	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	LR-2670	LR-2670	SG A LEVEL RECORDER UPPER RANGE (EFIC)	Yes	No	Yes	No	N/A	I	-	Yes		X		X	
1	**20**	**PY-2618A-1**	**PY-2618-A1**	**I/V CONVERTER STM GEN A PRESS**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**		**X**		**X**	
1	20	PY-2618A-2	PY-2618-A2	I/V CONVERTER STM GEN A PRESS	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	PI-2618A	PI-2618A	S/G A PRESSURE INDICATOR	Yes	No	Yes	No	N/A	I	T	No		X		X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	20	HS-2676	HS-2676	STM GEN A ATMOS DUMP ISO VLV	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	20	C86	C86	ESAS CABINET DIGITAL SUBSYSTEM NO. 1	Yes	No	Yes	No	V-20	I	T	No	X	X	X	X	X
1	20	C87	C87	ESAS CABINET DIGITAL SUBSYSTEM NO 1	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**20**	**C88**	**C88**	**ESAS CABINET ANALOG SUBSYSTEM NO 1**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	**20**	**C89**	**C89**	**ESAS ANALOG SUBSYSTEM NO. 2**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	**20**	**C90**	**C90**	**ESAS CABINET ANALOG SUBSYSTEM NO 3**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	20	C91	C91	ESAS CABINET DIGITAL SUBSYSTEM NO 2	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C92	C92	ESAS CABINET DIGITAL SUBSYSTEM NO 2	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	PWR-2405	PWR-2405	REACTOR BLDG SPRAY ENG SAFEG'D POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**20**	**PWR-2406**	**PWR-2406**	**REACTOR BLDG SPRAY ENG SAFEG'D POWER SUPPLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	20	PWR-2407	PWR-2407	REACTOR BLDG SPRAY ENG SAFEG'D POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	C04	C04	CNTRL BD-PRI COOL AND CHEM ADD	Yes	No	Yes	No	V-13	I	T	No	X	X	X	X	X
1	20	C16	C16	VERTICAL BOARD, ENGINEERED SAFEGUARDS	Yes	No	Yes	No	V-11	I	T	No	X	X	X	X	X
1	20	C18	C18	VERTICAL BOARD, ENGINEERED SAFEGUARDS	Yes	No	Yes	No	V-11	I	T	No	X	X	X	X	X
1	**20**	**LY-1411A**	**LY-1411A**	**BWST LEVEL #1**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	20	LIS-1411	LIS-1411	BWST LEVEL #1	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	LY-1421A	LY-1421A	BWST LEVEL #2	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**20**	**LIS-1421**	**LIS-1421**	**BWST LEVEL #2**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	20	HS-1407	HS-1407	DH BOR WTR TO P34A E3	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	HS-1276	HS-1276	OPEN/CLOSE HANDSWITCH ON PANEL C18 FOR CV-1276	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	
1	20	HS-1275	HS-1275	MAKEUP TANK OUTLET VALVE	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	
1	20	HS-1241	HS-1241	P-36A REMOTE HANDSWITCH	Yes	No	Yes	No	N/A	I	T	yes	X	X	X	X	
1	20	HS-1291	HS-1291	P-64A REMOTE HANDSWITCH	Yes	No	Yes	No	N/A	I	T	yes	X	X	X	X	
1	20	HS-1220	HS-1220	P-36A DISCHARGE CV-1220	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	**20**	**SS-1220**	**SS-1220**	**HPI ISO VV CV1220 (LTOP-NORM)**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**Yes**	**X**	**X**	**X**	**X**	
1	20	HS-1219	HS-1219	MU HPIS LOOP A E1	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	SS-1219	SS-1219	HPI ISO VV CV1219 (LTOP-NORM)	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1278	HS-1278	HPI ISOL VALVE CV-1278 OPEN CLOSE HANDSWITCH	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	SS-1278	SS-1278	HPI ISOL VALVE CV-1278 (LTOP NORM) SELECTOR SW	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1279	HS-1279	HPI ISOL VALVE CV-1279 OPEN CLOSE HANDSWITCH	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	SS-1279	SS-1279	HPI ISOL VALVE CV-1279 (LTOP NORM) SELECTOR SW	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1408	HS-1408	BWST T-3 OUTLET VALVE	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	X
1	20	HS-1277	HS-1277	B DECAY HEAT LOOP TO P-36C SUCTION	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	HS-1243	HS-1243	PRIMARY MAKEUP PUMP	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	HS-1294	HS-1294	P36C PRI MU PP AUX LO PP	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	HS-1228	HS-1228	HANDSW, HPI INJ TO P-32A	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	SS-1228	SS-1228	HPI ISO VV CV1228 (LTOP-NORM)	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1227	HS-1227	MU HPIS LOOP B ISO E2 SW	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	SS-1227	SS-1227	HPI ISO VV CV1227 (LTOP-NORM)	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1284	HS-1284	HPI ISOL VALVE CV-1284 OPEN CLOSE HANDSWITCH	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	SS-1284	SS-1284	HPI ISOL VALVE CV-1284 (LTOP NORM) SELECTOR SW	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1285	HS-1285	HPI ISOL VALVE CV-1285 OPEN CLOSE HANDSWITCH	Yes	No	Yes	No	N/A	I	T	no	X	X	X	X	
1	20	SS-1285	SS-1285	HPI ISOL VALVE CV-1285 (LTOP NORM) SELECTOR SW	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	C19	C19	VERTICAL BOARD, PLANT AUXILIARY SYSTEMS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	
1	20	HS-7901	HS-7901	H AND V EMGCY D-G RM VEF-24A	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-7902	HS-7902	H AND V EMGCY D-G RM VEF-24B	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-7903	HS-7903	H AND V EMGCY D-G RM VEF-24C	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-7904	HS-7904	H AND V EMGCY D-G RM VEF-24D	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-1050	HS-1050	RC LOOP A HOT LEG DH RMVL VLV	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1410	HS-1410	DH FROM RC SYS CV-1410	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1404	HS-1404	P-34A/B SUCT SUPP FROM RCS	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1435	HS-1435	P34B SUCT FROM RCS	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1406	HS-1406	P34B/P35B SUCT FROM RB SUMP	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	X
1	20	HS-1437	HS-1437	P34B SUCT FROM BWST	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1419	HS-1419	B' LOOP DH REMOVAL PUMP HS	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1400	HS-1400	B' LPI CONT VLV HS	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1434	HS-1434	CONTROL SWITCH FOR P34A SUCTION VALVE FROM RCS	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	CV-1406	CV-1406	RB SUMP LINE B OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	X
1	20	HS-1436	HS-1436	CONTROL SWITCH FOR P34A SUCTION VALVE FROM BWST	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1417	HS-1417	DH PMP P34A E3	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-1401	HS-1401	A LPI/DECAY HEAT BLOCK VALVE	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	20	HS-7415	HS-7415	AFRB RB CLNG UNIT DAMPER	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7410	HS-7410	RB CLNG FAN VSF1A ES CH 5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7416	HS-7416	AFRB RB CLNG UNIT DAMPER	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7411	HS-7411	AFRB RB CLNG UNIT DAMPER	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7417	HS-7417	RB CLNG UNIT DAMPER VSF-1C	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7412	HS-7412	RB CLNG FAN VSF1C ES CH 6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7418	HS-7418	HANDSWITCH, RB FAN VSF-1D BYPASS DAMPER SV-7413	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7413	HS-7413	HANDSWITCH, RB CLNG FAN VSF1D	Yes	No	Yes	No	N/A	I	T	No					X
1	**20**	**C14**	**C14**	**VERTICAL BOARD, PRIMARY COOLANT**	***Yes***	***No***	***Yes***	***No***	**V-11**	**I**	**T**	***No***				**X**	**X**
1	20	HS-5612	HS-5612	HS, FIRE WTR ISO VLV CV-5612 ES-3	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-5611	HS-5611	FIRE WTR ISO VLV ES-6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1053	HS-1053	RC QUENCH TK T42 DISCH VLV E5	Yes	No	Yes	No	N/A	I	T	no					X
1	20	HS-1054	HS-1054	RC QUENCH TK 42 E5	Yes	No	Yes	No	N/A	I	T	no					X
1	20	HS-7479	HS-7479	CNTRL SWITCH FOR SV-7479 LOCATED ON PANEL C26	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7453	HS-7453	RB PASS/APD/LEAK DETECT SUPPLY ISOL	Yes	No	Yes	No	N/A	I	T	No					X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	20	HS-7454	HS-7454	AIR PART MONITOR/RC LEAK DET ISO VLV	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-7510	HS-7510	PASS RB AIR SAMPLE ISO VALVE	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1820	HS-1820	SS SG E24A	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1826	HS-1826	SS SG E24B	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2214	HS-2214	IC LET DOWN CLRS ISO E5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2215	HS-2215	IC LET DOWN CLRS ISO E6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2233	HS-2233	IC LD CLRS INLET ISO E5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2243	HS-2243	IC LD CLRS INLET ISO E6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2220	HS-2220	IC CRD/RCP CLNT ISO E5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2221	HS-2221	IC CRD/RCP CLNT ISO E6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2234	HS-2234	IC RC PMP MOTOR ISO E5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2244	HS-2244	IC PMP MOTOR ISO E6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2235	HS-2235	IC CRD CLNT INLET ISO E5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2245	HS-2245	IC CRD CLNT INLET ISO E6	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2416	HS-2416	CF TK 2A	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-2418	HS-2418	CF TK 2B	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-4803	HS-4803	GRW RB VENT HDR CV4803 E 5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-6205	HS-6205	CH WS RB CHILLERS I/L ISO E5	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1213	HS-1213	MU LD CLR E29A IN VLV	Yes	No	Yes	No	N/A	I	T	Yes	X		X		

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	HS-1214	HS-1214	MU LD CLR E29A DSCHG E1	Yes	No	Yes	No	N/A	I	T	Yes	X		X		X
1	20	HS-1215	HS-1215	MU LD CLR E29B IN VLV	Yes	No	Yes	No	N/A	I	T	Yes	X		X		
1	20	HS-1216	HS-1216	MU LD CLR E29B DSCHG E1	Yes	No	Yes	No	N/A	I	T	Yes	X		X		X
1	20	HS-1221	HS-1221	MU LD CLRS ISO E2	Yes	No	Yes	No	N/A	I	T	Yes	X		X		X
1	20	HS-1083	HS-1083	RCS SG E-24A HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1081	HS-1081	RCS SG E-24A HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1084	HS-1084	RCS SG E-24A HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1082	HS-1082	RCS SG E-24A HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1093	HS-1093	RCS SG E-24B HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1091	HS-1091	RCS SG E-24B HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1094	HS-1094	RCS SG E-24B HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1092	HS-1092	RCS SG E-24B HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1073	HS-1073	RCS REACTOR HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1071	HS-1071	RCS QUENCH HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1074	HS-1074	RCS REACTOR HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1072	HS-1072	RCS REACTOR HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1098	HS-1098	RCS HI POINT VENTS	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1099	HS-1099	RCS HI POINT VENTS	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1079	HS-1079	RCS PRESSURIZER HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	HS-1077	HS-1077	RCS PRESSURIZER HI POINT VENT	Yes	No	Yes	No	N/A	I	T	Yes				X	
1	20	HS-1273	HS-1273	RCP 32 A SEAL BLEEDOFF ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1273A	HS-1273A	RCP-32A BLEEDOFF BYPASS ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1272	HS-1272	RCP 32 B SEAL BLEEDOFF ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1272A	HS-1272A	RCP-32B BLEEDOFF BYPASS ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1271	HS-1271	RCP 32 C SEAL BLEEDOFF ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1271A	HS-1271A	CP-32C BLEEDOFF BYPASS ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1270	HS-1270	RCP 32 D SEAL BLEEDOFF ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1274	HS-1274	MU RC PP SEAL BLEEDOFF ISO E2	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1270A	HS-1270A	RCP-32D BLEEDOFF BYPASS ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	HS-1295	HS-1295	RCP BLEEDOFF BYPASS HDR ISO	Yes	No	Yes	No	N/A	I	T	Yes			X		
1	20	LY-1001A	LY-1001A	RC PRZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LY-1001D	LY-1001D	RC PRZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LY-1001E	LY-1001E	RC PREZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LY-1001F	LY-1001F	RC PRZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LRS-1001	LRS-1001	PRESSURIZER LEVEL COMP RECORDER / SWITCH CHAN 1	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LY-1002A	LY-1002A	RC PRZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LY-1002D	LY-1002D	RC PRZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LY-1002E	LY-1002E	RC PREZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	LY-1002F	LY-1002F	RC PRZ LEVEL SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	LIS-1002	LIS-1002	PRESSURIZER LEVEL COMP INDICATOR / SWITCH CHAN 2	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TT-1002A	TT-1002A	RC PRESSURIZER TEMP CONVERTER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TY-1002E	TY-1002E	RC PRZ TEMP SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TY-1002D	TY-1002D	RC PRZ TEMP SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TY-1001D	TY-1001D	RC PRZ TEMP SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TT-1001A	TT-1001A	RC PRESSURIZER TEMP CONVERTER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TY-1001E	TY-1001E	RC PREZ TEMP SIG BUFFER	Yes	No	Yes	No	N/A	I	T	Yes		X	X		
1	20	TT-1111	TT-1111	RC LOOP A HOT LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1111A	TY-1111A	RC LOOP A HOT LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1111B	TY-1111B	RC LOOP A WR HOT LEG TEMP	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TI-1111	TI-1111	RC LOOP A WR HOT LEG TEMP	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TT-1115	TT-1115	RC LOOP A PP D COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1115A	TY-1115A	RC LOOP A PP D COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1115B	TY-1115B	RC LOOP A PP D COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TI-1115	TI-1115	RC LOOP A COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TT-1147	TT-1147	RC LOOP B PP A COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1147A	TY-1147A	RC LOOP B PP A COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1147B	TY-1147B	RC LOOP B PP A COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	TI-1147	TI-1147	RC LOOP B COLD LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	**20**	**TT-1139**	**TT-1139**	**RC LOOP B HOT LEG**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	Yes	**X**	**X**		**X**	
1	20	TY-1139A	TY-1139A	RC LOOP B HOT LEG	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	TY-1139B	TY-1139B	RC LOOP B WR HOT LEG TEMP	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	**20**	**TR-1139**	**TR-1139**	**RC LOOP B WR HOT LEG TEMP**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**Yes**	**X**	**X**		**X**	
1	20	PY-1041A	PY-1041A	RCS PRESSURE TO SPSA AND ESAS	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	PY-1041B	PY-1041B	RCS PRESSURE TO ESAS AND PI-1041	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	PI-1041	PI-1041	WIDE RANGE RC PRESSURE ES - CHANNEL 2	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	**20**	**PY-1042A**	**PY-1042A**	**RCS PRESSURE**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**Yes**	**X**	**X**		**X**	
1	20	PY-1042B	PY-1042B	RCS PRESSURE	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	PR-1042	PR-1042	WR RCS PRESSURE - CH 1	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	PI-1010	PI-1010	LOW RANGE REACT COOLANT PRESS	Yes	No	Yes	No	N/A	I	T	Yes	X	X		X	
1	20	HS-1000A	HS-1000A	SELECTOR SWITCH	Yes	No	Yes	No	N/A	I	T	No		X	x	X	
1	20	HS-1000	HS-1000	RC PRESZR T1 CV-1000	Yes	No	Yes	No	N/A	I	T	No		X	X	X	
1	20	HS-1014	HS-1014	ELECTROMATIC RELIEF VALVE	Yes	No	Yes	No	N/A	I	T	No		X	X	X	
1	20	HS-1814	HS-1814	SS PRESZR T1 STM	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1816	HS-1816	SS PRESZR T1 SAMPLE ISO	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1818	HS-1818	PRESSURIZER SAMPLING S. VLV	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-1840	HS-1840	HOT LEG SAMPLING S. VLV	Yes	No	Yes	No	N/A	I	T	No					X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	C03	C03	CONTROL BOARD, REACTOR RODS, ICS, AND FEEDWATER	Yes	No	Yes	No	V-13	I	T	No	X	X	X	X	
1	20	C41	C41	NI & RPS SYSTEM A	Yes	No	Yes	No	V-18	I	T	No	X				
1	**20**	**C42**	**C42**	**NI & RPS SYSTEM B**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	No	**X**				
1	20	C43	C43	NI & RPS SYSTEM C	Yes	No	Yes	No	N/A	I	T	No	X				
1	**20**	**C44**	**C44**	**NI & RPS SYSTEM D**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	No	**X**				
1	20	C49	C49	CRDM AC CIRCUIT BREAKER CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	C53	C53	CRDM DC CIRCUIT BREAKER CABINET	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	ICC-0020	ICC-0020	REACTOR TRIP PB	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	ICC-0021	ICC-0021	ROD POSITION INDICATOR FOR ROD GROUP 5 AND 6	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	ICC-0022	ICC-0022	ROD POSITION INDICATOR FOR ROD GROUP 7 AND 8	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	ZI-0023	ZI-0023	ICS REACTOR ROD POSITION INDICATOR PANEL	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	NI-0509	NI-0509	POWER RANGE INDICAS TOTAL FLUX/DELTA FLUX CH. 1	Yes	No	Yes	No	N/A	I	T	Yes	X				
1	20	NI-0510	NI-0510	POWER RANGE INDICAS TOTAL FLUX/DELTA FLUX CH. 2	Yes	No	Yes	No	N/A	I	T	Yes	X				
1	20	NI-0511	NI-0511	POWER RANGE INDICAS TOTAL FLUX/DELTA FLUX CH. 3	Yes	No	Yes	No	N/A	I	T	Yes	X				
1	20	NI-0512	NI-0512	POWER RANGE INDICAS TOTAL FLUX/DELTA FLUX CH. 4	Yes	No	Yes	No	N/A	I	T	Yes	X				
1	20	NI-0501	NI-501	SOURCE RANGE LEVEL INDICATOR CHANNEL 1	Yes	No	Yes	No	N/A	I	T	Yes	X				
1	20	NY-501B	NY-501B	NEUTRON FLUX SIGNAL ISOLATOR	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	NIT-501	NIT-501	NEUTRON FLUX SIGNAL PROCESSOR	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	NI-0502	NI-502	SOURCE RANGE LEVEL INDICATOR CHANNEL 2	Yes	No	Yes	No	N/A	I	T	No	X				

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	20	NY-502B	NY-502B	NEUTRON FLUX SIGNAL ISOLATOR	Yes	No	Yes	No	N/A	I	T	No	X				
1	20	NIT-502	NIT-502	NEUTRON FLUX SIGNAL PROCESSOR	Yes	No	Yes	No	N/A	I	T	No	X				
1	**20**	**C26**	**C26**	**VERT BD - SUP ENGR SFGO**	**Yes**	**No**	**Yes**	**No**	**V-19**	**I**	**T**	**No**		**X**	**X**	**X**	**X**
1	20	C45	C45	INSTRUMENTATION POWER SUPPLY CABINET	Yes	No	Yes	No	V-15	I	T	No		X	X	X	X
1	20	PWR-0001	PWR-0001	ANNUN K01 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0002	PWR-0002	ANNUN K02 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0004	PWR-0004	ANNUN K04 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0005	PWR-0005	ANNUN K05 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0006	PWR-0006	ANNUN K06 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0007	PWR-0007	ANNUN K07 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0008	PWR-0008	ANNUN K08 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0009	PWR-0009	ANNUN K09 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0010	PWR-0010	ANNUN K10 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0011	PWR-0011	ANNUN K11 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-0012	PWR-0012	ANNUN K12 POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	PWR-8035	PWR-8035	POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		x	X	X	X
1	20	PWR-8036	PWR-8036	POWER SUPPLY	Yes	No	Yes	No	N/A	I	T	No		X	X	X	X
1	20	HS-3720	HS-3720	SLUICE GATE NO. 1 CONTROL SW	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	20	HS-3611	HS-3611	SERVICE WTR P4A	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	20	HS-3646	HS-3646	SW VLV X-TIE CV-3646	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	20	HS-3724	HS-3724	SLUICE GATE NO. 5 CONTROL SW	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	20	HS-3820	HS-3820	SW LOOP 1 TO ICW COOLER	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	20	HS-3812	HS-3812	SW TO VCC-2A AND 2B	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-3824	HS-3824	SW DISCHG TO FLUME	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	20	HS-3850	HS-3850	CV-3850 CONTROL SWITCH	Yes	No	Yes	No	N/A	I	T	No				X	
1	20	HS-3806	HS-3806	SW TO EMGY DSL HX E20A	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3822	HS-3822	DECAY HEAT CLR SERVICE WTR E-35A INLET CV-3822 HS	Yes	No	Yes	No	N/A	I	T	No			X	X	X
1	20	HS-3721	HS-3721	SLUICE GATE NO. 2 CONTROL SW	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3610	HS-3610	SERVICE WTR P4C	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3642	HS-3642	SW VLV X-TIE CV-3642	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3643	HS-3643	SW TO AUX COOLING WATER ISOL (CV-3643)	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3726	HS-3726	SLUICE GATE NO. 7 CONTROL SW	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3811	HS-3811	SELECTOR SWITCH FOR CV-3811	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3813	HS-3813	SELECTOR SWITCH FOR CV-3813 AND CV-3815	Yes	No	Yes	No	N/A	I	T	No					X
1	20	HS-3807	HS-3807	SW TO EMGY DSL HX E20B	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	20	HS-3821	HS-3821	SELECTOR SWITCH	Yes	No	Yes	No	N/A	I	T	No			X	X	X
1	20	HS-3851	HS-3851	CV-3851 CONTROL SWITCH	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	21	T-57A	T-57A	EMERGENCY DIESEL FUEL TANK	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	21	T-30A	T-30A	DG1 FUEL OIL DAY TANK	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**21**	**T-78A**	**T-78A**	**EMERG. DIESEL GEN (K4A) COOLING WATER EXP TANK**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	**21**	**E-197A**	**E-197A**	**A EDG LUBE OIL HEAT EXCHANGER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	21	E-198A1	E-198A1	DG1 AIR COOLER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	E-198A2	E-198A2	DG1 AIR COOLER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-57B	T-57B	EMERGENCY DIESEL FUEL TANK	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-30B	T-30B	EMERG D.G. (K4B) FUEL OIL TANK	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**21**	**T-78B**	**T-78B**	**EMERG. DIESEL GEN (K4B) COOLING WATER EXP. TANK**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	21	E-197B	E-197B	B EDG LUBE OIL HEAT EXCHANGER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	E-198B1	E-198B1	DG2 AIR COOLER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	E-198B2	E-198B2	DG2 AIR COOLER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31A-1	T31A1	EMERG DIESEL GEN K4A AIR CYLINDER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31A-2	T31A2	EMERG DIESEL GEN K4A AIR CYLINDER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31A-4	T31A4	EDG AIR RECEIVER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31A-3	T31A3	EDG AIR RECEIVER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31B-2	T31B2	EMERG DIESEL GEN K4B AIR CYLINDER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31B-1	T31B1	EMERG DIESEL GEN K4B AIR CYLINDER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31B-4	T31B4	EMERG DIESEL GEN K4B AIR CYLINDER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	T-31B-3	T31B3	EMERG DIESEL GEN K4B AIR CYLINDER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Environment			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
										Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System					
1	21	T-41B	T-41B	CONDENSATE STORAGE TANK	Yes	No	Yes	No	N/A	O	H, T	No		X		X	
1	21	T-41	T-41	CONDENSATE STORAGE TANK	Yes	No	Yes	No	V-23	O	H, T	No		X		X	
1	21	E-24B	E-24B	PRIMARY COOLANT LOOP B STEAM GENERATOR	Yes	No	Yes	No	N/A	I	-	Yes		X		X	
1	**21**	**E-109**	**E-109**	**OIL COOLER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	21	E-24A	E-24A	PRIMARY COOLANT LOOP A STEAM GENERATOR	Yes	No	Yes	No	N/A	I	-	Yes		X		X	
1	21	T-3	T-3	BWST	Yes	No	Yes	No	N/A	O	H, T	No	X	X	X	X	X
1	21	E-39A	E-39A	HPI PMP P-36A LUBE OIL CLR	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	
1	21	E-39C	E-39C	HPI PMP P-36C LUBE OIL CLR	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	21	E-50B	E-50B	DECAY HEAT REMOVAL PUMP COOLER	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	**21**	**E-35B**	**E-35B**	**'B' LOOP DH CLR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	21	E-50A	E-50A	DECAY HEAT REMOVAL PUMP COOLER	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	**21**	**E-35A**	**E-35A**	**'A' LOOP DH CLR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	21	T-209	T-209	ACCUM TANK FOR CV-2214 AIR OPERATOR	Yes	No	Yes	No	N/A	I	-	No					X
1	21	T-210	T-210	ACCUM TANK FOR CV-2233 AIR OPERATOR	Yes	No	Yes	No	N/A	I	-	No					X
1	**21**	**T-208**	**T-208**	**ACCUM TANK FOR CV-2234 AIR OPERATOR**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	21	R-1	R-1	REACTOR VESSEL,INTERNALS,HEAD & MNTC STRUCTURE	Yes	No	Yes	No	N/A	I	-	No					X
1	21	E-29A	E-29A	LETDOWN COOLER	Yes	No	Yes	No	N/A	I	-	Yes	X		X		
1	21	E-29B	E-29B	LETDOWN COOLER	Yes	No	Yes	No	N/A	I	-	Yes	X		X		
1	21	T-1	T-1	PRESSURIZER T1	Yes	No	Yes	No	N/A	I	-	No		X	X	X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	21	E-20A-1	E20A1	EMERG. DIESEL GEN. JACKET CW HEAT EXCH. K4A	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	E-20A-2	E20A2	EMERG. DIESEL GEN. JACKET CW HEAT EXCH. K4A	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	E-20B-1	E20B1	EMERG. DIESEL GEN. JACKET CW HEAT EXCH. K4B	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	21	E-20B-2	E20B2	EMERG. DIESEL GEN. JACKET CW HEAT EXCH. K4B	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8A	CV-2873	CV-2873	COND. MAKEUP CONTROL VALVE	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	8A	CV-2877	CV-2877	CONDENSATE REJECT TO CST CONTROL VALVE	Yes	No	Yes	No	N/A	I	T	No		X		X	
1	8A	CV-2802	CV-2802	EFW P-7A SUCTION FROM CST	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	**8A**	**CV-2806**	**CV-2806**	**EFW P-7A SUCTION FROM SW**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	8A	CV-2870	CV-2870	EFW TEST RECIRC P-7A ISOL	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	**8A**	**CV-2620**	**CV-2620**	**EFW P-7A TO SG-B ISOL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	8A	CV-2619	CV-2619	ATMOS DUMP "B" BLOCK VALVE	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	8A	CV-2617	CV-2617	EFW PP TURBINE K-3 STEAM FROM SG-B	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	8A	CV-2613	CV-2613	EFW PP TURBINE K-3 STEAM ADMISSION VLV BYPASS	Yes	No	Yes	No	V-03	I	-	No		X		X	
1	**8A**	**CV-2800**	**CV-2800**	**EFW P-7B SUCTION FROM CST**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	8A	CV-2803	CV-2803	EFW P-7B SUCTION FROM SW	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	8A	CV-2869	CV-2869	P-7B TEST RECIRC ISOLATION	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	8A	CV-2670	CV-2670	EFW P-7B TO SG-A ISOLATION	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	8A	CV-2676	CV-2676	ATMOS DUMP "A" BLOCK VALVE	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	8A	CV-2667	CV-2667	EFW PP TURBINE K-3 STEAM FROM SG-A	Yes	No	Yes	No	V-03	I	-	No		X		X	

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	**8A**	**CV-1407**	**CV-1407**	**BWST T-3 OUTLET VLV**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	**X**
1	**8A**	**CV-1276**	**CV-1276**	**"A" DH LOOP DISCH TO MU PUMP P-36A SUCTION**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	8A	CV-1275	CV-1275	MAKEUP TANK OUTLET	Yes	No	Yes	No	N/A	I	-	yes	X	X	X	X	
1	8A	CV-1301	CV-1301	MU PUMPS RECIRC ISOL	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	**8A**	***CV-1300***	***CV-1300***	***SEAL RTN CLR ISOL***	***Yes***	***No***	***Yes***	***No***	**N/A**	**I**	**-**	***Yes***	**X**	**X**	**X**	**X**	
1	**8A**	**CV-1220**	**CV-1220**	**HPI TO P-32D DISCH**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	8A	CV-1219	CV-1219	HPI TO P-32C DISCH	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1278	CV-1278	HPI TO P-32A DISCH	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1279	CV-1279	HPI TO P-32B DISCH	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1416	CV-1416	PZR AUX SPRAY VALVE	Yes	No	Yes	No	N/A	I	-	Yes		X			
1	**8A**	**CV-1206**	**CV-1206**	**RCP SEAL INJECTION BLOCK**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**		**X**			
1	8A	CV-1408	CV-1408	BWST T-3 OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	X
1	8A	CV-1277	CV-1277	"B" DH LOOP DISCH TO MU PUMP P-36C SUCTION	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1228	CV-1228	HPI TO P-32A DISCHARGE	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	**8A**	**CV-1227**	**CV-1227**	**HPI TO P-32B DISCHARGE**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	8A	CV-1284	CV-1284	'C' HPI BLOCK VALVE	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1285	CV-1285	HPI TO P-32D DISCH	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	**8A**	**CV-1050**	**CV-1050**	**DH SUCT ISOL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	**8A**	**CV-1410**	**CV-1410**	**DECAY HEAT SUCTION FROM RCS ISOL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	8A	CV-1404	CV-1404	P-34A/B SUCT SUPP FROM RCS	Yes	No	Yes	No	N/A	I	T	Yes	X	X	X	X	
1	8A	CV-1435	CV-1435	DECAY HEAT P-34B SUCTION FROM RCS	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1406	CV-1406	RB SUMP LINE B OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	X
1	**8A**	**CV-1437**	**CV-1437**	**DECAY HEAT P-34B SUCTION FROM BWST**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**	**X**	**X**	**X**	
1	8A	CV-1429	CV-1429	DHR COOLER E-35B OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1400	CV-1400	LPI/DECAY HEAT BLOCK	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1434	CV-1434	DECAY HEAT P-34A SUCTION FROM RCS	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1405	CV-1405	RB SUMP LINE A OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	X
1	8A	CV-1436	CV-1436	DECAY HEAT P-34A SUCTION FROM BWST	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1428	CV-1428	DHR COOLER E-35A OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-1401	CV-1401	LPI/DECAY HEAT BLOCK	Yes	No	Yes	No	N/A	I	-	Yes	X	X	X	X	
1	8A	CV-7470	CV-7470	VSF-1A BACK DRAFT DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-7471	CV-7471	VSF-1B BACKDRAFT DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-7472	CV-7472	VSF-1C BACKDRAFT DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-7473	CV-7473	VSF-1D BACKDRAFT DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-5612	CV-5612	INSIDE REACTOR BUILDING ISOLATION	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-5611	CV-5611	FIREWATER TO RB OUTSIDE ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-1065	CV-1065	COND TRANSFER SUPPLY TO QUENCH TANK	Yes	No	Yes	No	N/A	I	-	Yes					X
1	8A	CV-1053	CV-1053	QUENCH TK OUT ISOL	Yes	No	Yes	No	N/A	I	-	Yes					X

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	8A	CV-1054	CV-1054	QUENCH TK T-42 GAS SPACE SAMPLE ISOL	Yes	No	Yes	No	N/A	I	-	Yes					X
1	**8A**	**CV-7403**	**CV-7403**	**RB PURGE OUTLET**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	8A	CV-7404	CV-7404	RB PURGE INLET	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-7453	CV-7453	RB LEAK DETECTOR ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-1820	CV-1820	SG E24A SAMPLE ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-1826	CV-1826	SG E24B SAMPLE ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-2215	CV-2215	RCP SEAL CLR & LTDN CLRS ICW RTN ISOL FROM RB	Yes	No	Yes	No	N/A	I	-	Yes					X
1	8A	CV-2220	CV-2220	RCP MTR AIR & LO CLRS & CRD NON-NUC ICW OUT ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-2221	CV-2221	CRD CLNG & RCP MTR AIR & LO CLR COMBINED RTN ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	**8A**	**CV-2235**	**CV-2235**	**CRD NON-NUC ICW INLET RB ISOL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	8A	CV-2416	CV-2416	CORE FLOODING TANK T-2A BLEED/SAMPLE ISOL VLV	Yes	No	Yes	No	N/A	I	-	Yes					X
1	8A	CV-2418	CV-2418	CORE FLOODING TANK T-2B BLEED/SAMPLE ISOL VLV	Yes	No	Yes	No	N/A	I	-	Yes					X
1	8A	CV-4803	CV-4803	RB VENT HEADER ISOL VALVE INSIDE RB	Yes	No	Yes	No	N/A	I	-	No					X
1	**8A**	**CV-6205**	**CV-6205**	**CHILL WTR RTN RB ISOL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	**8A**	**CV-1213**	**CV-1213**	**LD CLR E-29A IN ISOL**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**	**X**		**X**		
1	8A	CV-1214	CV-1214	LD CLR E-29A OUT ISOL	Yes	No	Yes	No	N/A	I	-	Yes	X		X		X
1	8A	CV-1215	CV-1215	LD CLR E-29B IN ISOL	Yes	No	Yes	No	N/A	I	-	Yes	X		X		
1	8A	CV-1216	CV-1216	LD CLR E-29B OUT ISOL	Yes	No	Yes	No	N/A	I	-	Yes	X		X		X
1	8A	CV-1221	CV-1221	LETDOWN COOLERS OUTLET	Yes	No	Yes	No	N/A	I	-	Yes	X		X		X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	**8A**	**CV-1273**	**CV-1273**	**P-32A SEAL RETURN**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**Yes**			**X**		
1	8A	CV-1272	CV-1272	P32B SEAL RETURN	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8A	CV-1271	CV-1271	P-32C SEAL RETURN	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8A	CV-1270	CV-1270	P32D SEAL RETURN	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8A	CV-1274	CV-1274	RCP BLEEDOFF NORMAL RETURN	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8A	CV-1295	CV-1295	COMMON SEAL RETURN TO QUENCH TANK	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8A	CV-1000	CV-1000	PZR ERV ISOL	Yes	No	Yes	No	N/A	I	-	No		X	X	X	
1	8A	CV-1814	CV-1814	PRESSURIZER STEAM SPACE SAMPLE VALVE	Yes	No	Yes	No	N/A	I	-	Yes					X
1	8A	CV-1816	CV-1816	PRESSURIZER WATER SPACE SAMPLE VALVE	Yes	No	Yes	No	N/A	I	-	Yes					X
1	**8A**	**CV-3646**	**CV-3646**	**P-4A TO P-4B DISCH CROSSOVER**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**		**X**	**X**	**X**
1	8A	CV-3644	CV-3644	P-4A TO P-4B DISCH CROSSOVER	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	8A	CV-3645	CV-3645	SEE SW-10A VALVE FOR INFO	Yes	No	Yes	No	N/A	I	T	No	X		X	X	X
1	8A	CV-3820	CV-3820	LOOP 1 SUPPLY TO ICW COOLERS	Yes	No	Yes	No	N/A	I	-	No	X		X	X	X
1	8A	CV-3812	CV-3812	SW TO VCC-2A AND 2B	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-3824	CV-3824	SW RTN TO DISCH FLUME	Yes	No	Yes	No	N/A	I	-	No	X		X	X	X
1	**8A**	**CV-3850**	**CV-3850**	**EFW SERV WTR LOOP I ISOLATION**	**Yes**	**No**	**Yes**	**No**	**V-27**	**I**	**-**	**No**				**X**	
1	8A	CV-3806	CV-3806	SERV WTR TO DG1 CLRS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8A	CV-3822	CV-3822	DECAY HEAT CLR SERVICE WTR E-35A INLET	Yes	No	Yes	No	N/A	I	-	No			X	X	X
1	8A	CV-3642	CV-3642	P-4B TO P-4C DISCH CROSSOVER	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X

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UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	8A	CV-3640	CV-3640	'B' DISCH TO LOOP II SW	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8A	CV-3643	CV-3643	ACW LOOP ISOL	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8A	CV-3641	CV-3641	SEE SW-10C VALVE FOR INFO	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8A	CV-3811	CV-3811	LOOP 2 SUPPLY TO ICW COOLERS	Yes	No	Yes	No	N/A	I	-	No	X	X	X	X	X
1	8A	CV-3813	CV-3813	LOOP II SW SUPPLY TO VCC-2C AND 2D	Yes	No	Yes	No	N/A	I	-	No					X
1	8A	CV-3807	CV-3807	SERV WTR TO DG2 CLRS	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8A	CV-3821	CV-3821	DECAY HEAT CLR SERVICE WTR E-35B INLET	Yes	No	Yes	No	N/A	I	-	No			X	X	X
1	**8A**	**CV-3851**	**CV-3851**	**EFW SERV WTR LOOP II ISOLATION**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	**8B**	**SV-5218**	**SV-5218**	**KMA-3/4 AIR START SOLENOID**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	8B	SV-5233	SV-5233	SOLENOID VALVE FOR CV-5233 K4A AIR START	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	8B	SV-5237	SV-5237	KMB-3/4 AIR START	Yes	No	Yes	No	N/A	I	T	No	X	X	X	X	X
1	**8B**	**SV-5239**	**SV-5239**	**KMB-1/2 AIR START**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**T**	**No**	**X**	**X**	**X**	**X**	**X**
1	8B	CV-2647	CV-2647	P-7A TO SG-B CONTROL VALVE	Yes	No	Yes	No	N/A	I	-	No		X		X	
1	**8B**	**CV-2646**	**CV-2646**	**P-7B TO SG-A CONTROL VALVE**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**		**X**		**X**	
1	8B	SV-7410	SV-7410	VSF-1A CHILLER BYPASS DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7411	SV-7411	VSF-1B CHILLER BYPASS DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7412	SV-7412	VSF-1C CHILLER BYPASS DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7413	SV-7413	VSF-1D CHILLER BYPASS DAMPER	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7479	SV-7479	RB LEAK DETECTOR ISOL RETURN TO RB	Yes	No	Yes	No	N/A	I	-	No					X

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	8B	SV-7510	SV-7510	RB ATMOS PASS SAMPLE RETURN ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7456	SV-7456	RB LEAK DETECTOR ISOL RETURN TO RB	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7454	SV-7454	RB LEAK DETECTOR ISOL FROM RB	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-7512	SV-7512	RB ATMOS PASS SAMPLE SUPPLY ISOL	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-2214A	SV-2214A	CV-2214 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-2214B	SV-2214B	CV-2214 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	**8B**	**SV-2233A**	**SV-2233A**	**CV-2233 AIR SUPPLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	8B	SV-2233B	SV-2233B	CV-2233 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-2243A	SV-2243A	CV-2233 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	**8B**	**SV-2243B**	**SV-2243B**	**CV-2233 AIR SUPPLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	8B	SV-2234A	SV-2234A	CV-2234 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	**8B**	**SV-2234B**	**SV-2234B**	**CV-2234 AIR SUPPLY**	**Yes**	**No**	**Yes**	**No**	**N/A**	**I**	**-**	**No**					**X**
1	8B	SV-2244A	SV-2244A	CV-2234 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-2244B	SV-2244B	CV-2234 AIR SUPPLY	Yes	No	Yes	No	N/A	I	-	No					X
1	8B	SV-1083	SV-1083	TH LOOP A VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1081	SV-1081	TH LOOP A VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1084	SV-1084	TH LOOP A VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1082	SV-1082	TH LOOP A VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1093	SV-1093	TH LOOP B VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	

Table 1 - Base List 1

UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4					Five Safety Functions				
										Environment							
					Seismic 1?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced	IPEEE	Inside / Outside (I / O)	High Temp / Humidity (T / H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Contain-ment
1	8B	SV-1091	SV-1091	TH LOOP B VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1094	SV-1094	TH LOOP B VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1092	SV-1092	TH LOOP B VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1073	SV-1073	RV HEAD HIGH POINT VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1071	SV-1071	RV HEAD HIGH POINT VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1074	SV-1074	RV HEAD HIGH POINT VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1072	SV-1072	RV HEAD HIGH POINT VENT	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1079	SV-1079	PZR VENT TO QUENCH TANK (UPSTREAM)	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1077	SV-1077	PZR VENT TO QUENCH TANK (DOWNSTREAM)	Yes	No	Yes	No	N/A	I	-	Yes				X	
1	8B	SV-1273	SV-1273	P-32A SEAL RETURN TO QUENCH TANK	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8B	SV-1272	SV-1272	P-32B SEAL RETURN TO QUENCH TANK	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8B	SV-1271	SV-1271	P-32C SEAL RETURN TO QUENCH TANK	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	8B	SV-1270	SV-1270	P-32D SEAL RETURN TO QUENCH TANK	Yes	No	Yes	No	N/A	I	-	Yes			X		
1	**8B**	**SV-1818**	**SV-1818**	**PZR/HOT LEG SAMPLE**	**Yes**	**No**	**Yes**	**No**	**V-02**	**I**	**-**	**Yes**					X
1	8B	SV-1840	SV-1840	HOT LEG SAMPLE	Yes	No	Yes	No	N/A	I	-	Yes					X

Table 2 - SWEL 1

SWEL1#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	DWG
SWEL1-001	M-112A	EDG K-4A EXHAUST MUFFLER	RAB	369	87	RED	EDG	0	I/T	N	M-217/SH2/G7/R.34
SWEL1-002	K-3	TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY	RAB	335	38	GREEN	EFW	0	I	N	M-204/SH6/D5/R.9
SWEL1-003	F-57A	P36A LO CLR E39A DISCH STR	RAB	335	56	RED	MU	0	I	N	M-231/SH1/F5/R.92
SWEL1-004	CV-6601A	FW TURBINE K-3 TRIP/THROTTLE VALVE	RAB	335	38	GREEN	EFW	0	I	N	M-204/SH6/E3/R.9
SWEL1-005	D-15	MOTOR CONTROL CENTER	RAB	368	104	RED	D	1	I/T	Y	E-17/SH1/-/R.33
SWEL1-006	E-21	DIESEL GEN NO. 2 EXCIT EQUIP	RAB	369	86	GREEN	EDG	2	I/T	N	E-103,6600-M12-1
SWEL1-007	B-6	480V LOAD CENTER BUS B-6	RAB	372	99	GREEN	B	2	I/T	Y	E-1/SH1/-/R.23
SWEL1-008	X-52	Y-03 POWER SUPPLY	RAB	372	100	RED	Y	4	I/T	Y	E-23/SH3/R.8
SWEL1-009	NOT USED	NOT USED									
SWEL1-010	P-16A	EMER DIESEL FUEL TRANSFER PUMP	DSB	YARD	252	RED	FO	5	I/T	Y	M-217/SH1/C6/R.75
SWEL1-011	P-108A	MAIN L.O. PUMP	RAB	369	87	RED	EDG	5	I/T	N	M-217/SH2/B3/R.34
SWEL1-012	P-7A	EMERGENCY F.W. PUMP (K-3 TURBINE DRIVEN)	RAB	335	38	GREEN	EFW	5	I	Y	M-204/SH3/B5/R.22
SWEL1-013	P-106B2	DG2 AC LUBE OIL SOAK BACKPUMP	RAB	369	86	GREEN	EDG	5	I/T	N	M-217/SH3/C3/R.16
SWEL1-014	P-16B	EMER DIESEL FUEL TRANSFER PUMP	DSB	YARD	251	GREEN	FO	5	I/T	Y	M-217/SH1/C3/R.75
SWEL1-015	P-104A	DG1 FUEL PRIMING PUMP	RAB	369	87	RED	FO	5	I/T	N	M-217/SH2/F2/R.34
SWEL1-016	CV-5218	KMA-3/4 AIR RELAY	RAB	369	87	RED	FO	7	I/T	N	M-217/SH4/E6/R.7
SWEL1-017	PSV-2684	MAIN STEAM RELIEF	RAB	404	170	N/A	MS	7	I	N	M-206/SH1/G3/R.100
SWEL1-018	CV-1432	'B' DH CLR E35B BYP	RAB	317	11	GREEN	DH	7	I	N	M-232/SH1/C3/R.75
SWEL1-019	CV-1052	QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB	RAB	317	13	GREEN	CZ	7	I	N	M-230/SH2/A6/R.23
SWEL1-020	CV-2214	RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL	RAB	356	77	RED	ICW	7	I	N	M-234/SH2/G6/R.34
SWEL1-021	CV-2233	RCPSEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL	RAB	356	77	BOTH	ICW	7	I	N	M-234/SH2/C4/R.34
SWEL1-022	CV-2234	RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL	RAB	356	77	BOTH	ICW	7	I	N	M-234/SH1/E6/R.70
SWEL1-023	CV-1433	DH CLR E-35A BYPASS	RAB	317	14	N/A	SW	7	I	N	M-210/SH1/D3/R.105
SWEL1-024	CV-2620	EFW P-7A TO SG-B ISOL	RAB	335	46	RED	EFW	8	I	N	M-204/SH3/F5/R.9
SWEL1-025	CV-2800	EFW P-7B SUCTION FROM CST	RAB	335	38	RED	EFW	8	I	N	M-204/SH3/F7/R.22
SWEL1-026	CV-2646	P-7B TO SG-A CONTROL VALVE	RAB	335	35	N/A	EFW	8	I	N	M-204/SH6/F7/R.9
SWEL1-027	CV-1407	BWST T-3 OUTLET VLV	RAB	354	63	RED	DH	8	I/B	N	M-232/SH1/F7/R.75
SWEL1-028	CV-1300	SEAL RTN CLR ISOL	RAB	372	94	GREEN	MU	8	I/B	Y	M-231/SH1/F4/R.92
SWEL1-029	CV-1220	HPI TO P-32D DISCH	RAB	360	79	RED	MU	8	I/B	N	M-231/SH3/C7/R.4
SWEL1-030	CV-1276	"A" DH LOOP DISCH TO MU PUMP P-36A SUCTION	RAB	335	56	RED	MU	8	I/B	N	M-231/SH1/B7/R.92
SWEL1-031	CV-1050	DH SUCT ISOL	RB	336	310	N/A	DH	8	I/B	N	M-230/SH1/F5/R.88
SWEL1-032	CV-1410	DECAY HEAT SUCTION FROM RCS ISOL	RB	336	315	N/A	DH	8	I/B	N	M-232/SH1/C8/R.75
SWEL1-033	CV-1437	DECAY HEAT P-34B SUCTION FROM BWST	RAB	317	11	GREEN	DH	8	I/B	N	M-232/SH1/C7/R.25
SWEL1-034	CV-1227	HPI TO P-32B DISCHARGE	RAB	335	53	GREEN	DH	8	I/B	N	M-232/SH1/F2/R.75
SWEL1-035	CV-7403	RB PURGE OUTLET	RB	424	15	N/A	PA	8	I	N	M-261/SH1/H8/R.48
SWEL1-036	CV-2235	CRD NON-NUC ICW INLET RB ISOL	RAB	356	77	N/A	ICW	8	I	N	M-234/SH1/E4/R.70
SWEL1-037	CV-6205	CHILL WTR RTN RB ISOL	RB	357	130	N/A	AC	8	I	N	M-222/SH1/F4/R.54
SWEL1-038	CV-1213	LD CLR E-29A IN ISOL	RB	336	250	N/A	RCS	8	I/B	N	M-231/SH2/G7/R.28
SWEL1-039	CV-1273	P-32A SEAL RETURN	RB	358	0	N/A	MU	8	I/B	N	M-231/SH2/E6/R.28
SWEL1-040	CV-3646	P-4A TO P-4B DISCH CROSSOVER	INTAKE BLDG	354	241	RED	SW	8	O/T	N	M-209/SH1/F3/R.77
SWEL1-041	CV-3850	EFW SERV WTR LOOP I ISOLATION	RAB	335	34	RED	SW	8	I	N	M-204/SH3/H8/R.22
SWEL1-042	CV-1206	RCP SEAL INJECTION BLOCK	RAB	360	79	N/A	MU	8	I/B	N	M-210/SH1/F5/R.105

Table 2 - SWEL 1

SWEL1#	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	DWG
SWEL1-043	CV-2806	EFW P-7A SUCTION FROM SW	RAB	335	38	GREEN	MU	8	I	N	M-210/SH1/E5/R.105
SWEL1-044	CV-3851	EFW SERV WTR LOOP II ISOLATION	RAB	335	34	GREEN	SW	8	I	N	M-204/SH3/A8/R.22
SWEL1-045	NOT USED	NOT USED									
SWEL1-046	SV-5218	KMA-3/4 AIR START SOLENOID	RAB	369	87	RED	EDG	8	I/T	Y	M-217/SH4/E6/R.7
SWEL1-047	SV-2243B	CV-2233 AIR SUPPLY	RAB	356	77	N/A	ICW	8	I	Y	M-234/SH2/E4/R.34
SWEL1-048	SV-2233A	CV-2233 AIR SUPPLY	RAB	356	77	N/A	ICW	8	I	Y	M-234/SH2/E4/R.34
SWEL1-049	SV-2234B	CV-2234 AIR SUPPLY	RAB	356	77	N/A	ICW	8	I	Y	M-234/SH1/E5/R.70
SWEL1-050	SV-5239	KMB-1/2 AIR START	RAB	369	86	GREEN	EDG	8	I/T	N	M-217/SH4/D4/R.7
SWEL1-051	SV-1818	PZR/HOT LEG SAMPLE	RAB	360	79	GREEN	PS	8	I	N	M-237/SH1/G7/R.
SWEL1-052	VEF-24A	DG1 ROOM EXHAUST FAN	RAB	386	258	RED	ABHV	9	I/T/H	N	M-263/SH2/A5/R.12
SWEL1-053	VFP-26B	DG2 INTAKE COMBUSTION AIR FILTER	RAB	369	86	N/A	EDG	10	I/T	N	M-217/SH2/G8/R.34
SWEL1-054	VSF-1C	RX/BLD COOLER FAN ASSEMBLY	RB	376	280	N/A	RBHV	10	I	N	M-261/SH1/C4/R.48
SWEL1-055	VCC-2D	RB SERVICE WATER COOLER COIL	RB	376	290	N/A	RBHV	10	I	N	M-261/SH1/C3/R.48
SWEL1-056	KMA-1	K-4A AIR START MOTOR	RAB	369	87	RED	EDG	13	I/T	N	M-217/SH4/D5/R.7
SWEL1-057	TV-7901B	EDG #1 VEF-24B N. ROOM DAMPER	RAB	369	87	RED	ABHV	13	I/T	Y	M-263/SH2/B6/R.12
SWEL1-058	RS-2	120 VAC DISTRIBUTION PNL RS2	RAB	386	129	GREEN	Y	14	I/T	N	E-1/SH1/-/R.31
SWEL1-059	RA-2	125 VDC DISTRIBUTION PNL RA2	RAB	372	95	GREEN	D	14	I/T	N	E-17/SH1/-/R.33
SWEL1-060	D-07	125V DC STATION BATTERY BANK TO BUS D01	RAB	372	110	RED	D	15	I/T	N	E-17/SH1/-/R.33
SWEL1-061	Y-03	Y-03 INCOMING BREAKER (200 AMP)	RAB	372	100	N/A	Y	16	I/T	Y	E-1/SH1/-/R.31
SWEL1-062	F-50A	DG1 FUEL PUMP SUCTION STRAINER	RAB	369	87	RED	ACP	17	I/T	N	M-217/SH2/F2/R.34
SWEL1-063	M-227A	DG1 CRANKCASE EJECTOR	RAB	369	87	RED	ACP	17	I/T	N	M-217/SH2/E7/R.34
SWEL1-064	F-50B	FUEL PUMP SINLEX STR	RAB	369	86	GREEN	ACP	17	I/T	Y	M-217/SH3/F2/R.16
SWEL1-065	F-52B	DG2 ENGINE MOUNTED TURBO FILTER	RAB	369	86	GREEN	ACP	17	I/T	N	M-217/SH3/C4/R.16
SWEL1-066	M-225B	DG2 TURBOCHARGER	RAB	369	86	GREEN	ACP	17	I/T	N	M-217/SH3/E8/R.16
SWEL1-067	SS-5211	DG1 OVERSPEED TRIP SWITCH	RAB	369	87	RED	ACP	18	I/T	N	M-217/SH2/D4/R.34
SWEL1-068	SE-5220	SPEED DETECTOR FOR K-4B	RAB	369	86	GREEN	ACP	18	I/T	N	M-217/SH3/F6/R.18
SWEL1-069	PS-5284	K4B CRANKCASE PRESS HI	RAB	369	86	GREEN	ACP	18	I/T	N	M-217/SH3/C6/R.16
SWEL1-070	D14	D06 MANUAL DISCONNECT	RAB	372	98	N/A	DCP	18	I/T	Y	E-17/SH1/-/R.33
SWEL1-071	PT-2667A	E24B MAIN STM PRESS-MSLI	RAB	386	144	N/A	EFW	18	I/T	Y	M-206/SH1/H2/R.100
SWEL1-072	NOT USED	NOT USED									
SWEL1-073	LSL-5206	LOW LEVEL DIESEL SWITCH	RAB	369	87	RED	ACP	18	I/T	N	M-217/SH2/H3/R.34
SWEL1-074	PT-2812	CFW EFWP P7B DSCHG	RAB	335	38	RED	EFW	18	I	N	M-204/SH3/H5/R.22
SWEL1-075	NOT USED	NOT USED									
SWEL1-076	TE-1139	B' LOOP TH TEMP	RB	410	150	N/A	RCS	19	I	N	M-230/SH1/D2/R.88
SWEL1-077	TS-7904	H&V EMGCY D-G RM FAN D	RAB	369	86	GREEN	HVAC	19	I/T	Y	M-263/SH2/B8/R.12
SWEL1-078	C10	VERT BD - ELEC AUX	RAB	386	129	BOTH	ACP	20	I/T	N	M217/SH2/A7/R.36
SWEL1-079	PY-2618-A1	I/V CONVERTER STM GEN A PRESS	RAB	368	104	RED	EFW	20	I/T	N	M-204/SH4/B7/R.9
SWEL1-080	PB-0144	START BUTTON FOR DIESEL GENERATOR #1	RAB	386	129	RED	ACP	20	I/T	N	M-217/SH2/A7/R.34
SWEL1-081	C539A	EFIC SIGNAL CONDITIONING CABINET	RAB	368	104	RED	EFW	20	I/T	N	M-204/SH4/C7/R.9
SWEL1-082	NOT USED	NOT USED									
SWEL1-083	NOT USED	NOT USED									
SWEL1-084	PI-2811A	EFWP P-7A DISCH PRESS	RAB	335	38	GREEN	EFW	20	I/T	Y	M-204/SH3/C4/R.22

Table 2 - SWEL 1

SWEL1#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	DWG
SWEL1-085	C88	ESAS CABINET ANALOG SUBSYSTEM NO 1	RAB	386	129	RED	ESAS	20	I/T	Y	E-269/SH2,3,1B
SWEL1-086	C89	ESAS ANALOG SUBSYSTEM NO. 2	RAB	386	129	GREEN	ESAS	20	I/T	Y	E-269/SH2,2A,3,1B
SWEL1-087	C90	ESAS CABINET ANALOG SUBSYSTEM NO 3	RAB	386	129	RED	ESAS	20	I/T	Y	E-269/SH2,3,1B
SWEL1-088	PWR-2406	REACTOR BLDG SPRAY ENG SAFEG'D POWER SUPPLY	RAB	386	129	GREEN	ESAS	20	I/T	N	M-236/SH1/E6/R.77
SWEL1-089	C14	VERTICAL BOARD, PRIMARY COOLANT	RAB	386	129	N/A	RBIS	20	I/T	N	M-230/SH2/B6/R.23
SWEL1-090	C42	NI & RPS SYSTEM B	RAB	386	129	GREEN	RPS/CRD/NIS	20	I/T	N	M-236/SH1/E8/R.77
SWEL1-091	C44	NI & RPS SYSTEM D	RAB	386	129	GREEN	RPS/CRD/NIS	20	I/T	N	M-230/SH1/D2/R.88
SWEL1-092	C26	VERT BD - SUP ENGR SFGO	RAB	386	129	N/A	SW	20	I/T	N	M-209/SH1/F4/R.77
SWEL1-093	PY-1042A	RCS PRESSURE	RAB	368	104	RED	RCS	20	I/T	N	M-230/SH1/F2/R.88
SWEL1-094	LY-1411A	BWST LEVEL #1	RAB	374	96	RED	HPI	20	I/T	N	M-232/SH1/G6/R.75
SWEL1-095	LY-4204A	CST T41B LEVEL RED I/V	RAB	368	104	RED	EFW	20	I/T	N	M-204/SH5/D6/R.12
SWEL1-096	PY-2667-A1	I/V CONVERTER STM GEN B PRESS	RAB	368	104	RED	EFW	20	I/T	N	M-204/SH4/B7/R.9
SWEL1-097	PB-2670	EMERG EW TO SG A FROM P7B VLV CV-2670	RAB	386	129	RED	EFW	20	I/T	N	M-204/SH3/G2/R.22
SWEL1-098	SS-1220	HPI ISO VV CV1220 (LTOP-NORM)	RAB	386	129	RED	HPI	20	I/T	N	M-231/SH3/C7/R.4
SWEL1-099	TR-1139	RC LOOP B WR HOT LEG TEMP	RAB	386	129	N/A	RCS	20	I/T	N	M-230/SH1/D2/R.88
SWEL1-100	LIS-1421	BWST LEVEL #2	RAB	386	129	RED	HPI	20	I/T	N	M-209/SH1/C2/R.77
SWEL1-101	T-78A	EMERG. DIESEL GEN (K4A) COOLING WATER EXP TANK	RAB	369	87	RED	ACP	21	I/T	Y	M-217/SH2/H1/R.34
SWEL1-102	T-78B	EMERG. DIESEL GEN (K4B) COOLING WATER EXP. TANK	RAB	369	86	GREEN	ACP	21	I/T	Y	M-217/SH3/H1/R.16
SWEL1-103	E-197A	A EDG LUBE OIL HEAT EXCHANGER	RAB	369	87	RED	EDG	21	I/T	N	M-217/SH2/D2/R.34
SWEL1-104	E-109	OIL COOLER	RAB	335	38	GREEN	EFW	21	I	Y	M-204/SH6/B4/R.9
SWEL1-105	NOT USED	NOT USED									
SWEL1-106	T-208	ACCUM TANK FOR CV-2234 AIR OPERATOR	RAB	356	77	N/A	ICW	21	I	N	M-234/SH1/E5/R.70
SWEL1-107	NOT USED	NOT USED									
SWEL1-108	E-35A	'A' LOOP DH CLR	RAB	317	14	N/A	DH	21	I	Y	M-232/SH1/F3/R.80
SWEL1-109	E-35B	'B' LOOP DH CLR	RAB	317	11	N/A	DH	21	I	Y	M-232/SH1/C3/R.80
SWEL1-110	P-107B	L.O.SCAVENGING PUMP	RAB	369	86	GREEN	EDG	5	I/T	N	M-217/SH3/B3/R.18

Table 3 - Base List 2

BL2#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	N/R
2001	SW-72	SW TO SFP EL 404' SERV CONN	RAB	404	159	N/A	SW	7	T/H	-

Table 4 - SWEL 2

SWEL2#	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	N/R	RDD
SWEL2-001	SW-72	SW TO SFP EL 404' SERV CONN	RAB	404	159	N/A	SW	7	T/H	-	N/A

Attachment C

Seismic Walkdown Checklists (SWCs)

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 001

Equipment ID No. *M-112A* Equip. Class[1] *0 - Other*

Equipment Description *EDG K-4A EXHAUST MUFFLER*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   Anchorage configuration verification is not required for this component.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   The anchorage that is visible outside of the insulation is free of bent, broken, missing and loose hardware.

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

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 001

Equipment ID No. *M-112A* Equip. Class *0 - Other*

Equipment Description *EDG K-4A EXHAUST MUFFLER*

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☒
   Not all of the anchorage was visible due to insulation, so anchorage configuration could not be verified.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets to be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The exhaust muffler is the highest piece of equipment in the area, so there are no potential interactions with overhead equipment, lighting or masonry block walls.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 001

Equipment ID No. *M-112A* Equip. Class *0 - Other*

Equipment Description *EDG K-4A EXHAUST MUFFLER*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

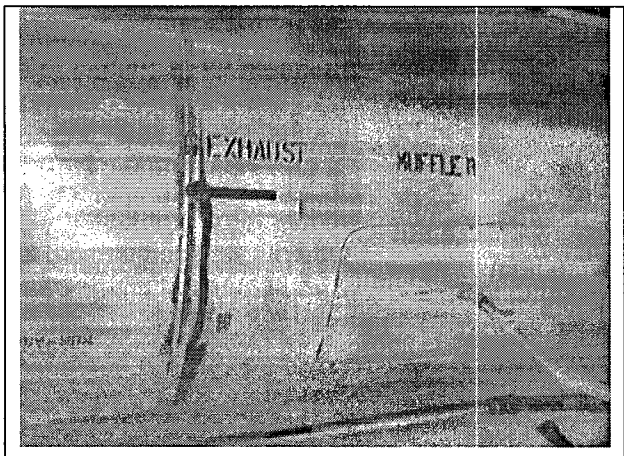
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 001

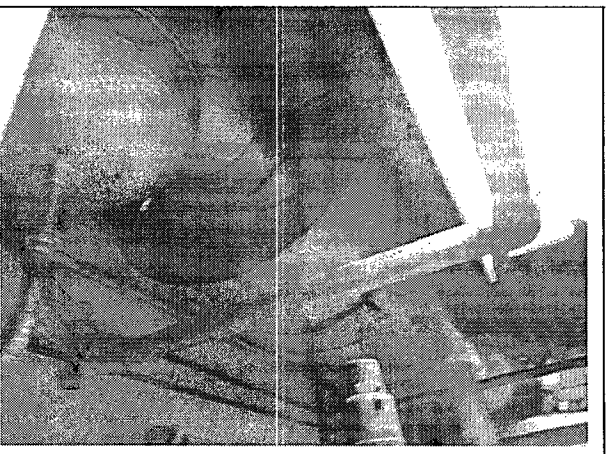
Equipment ID No. *M-112A* Equip. Class *0 - Other*

Equipment Description *EDG K-4A EXHAUST MUFFLER*

Photographs



Note: *Component identifying label on outside of insulation.*



Note: *View of exhaust muffler from ground, facing West.*

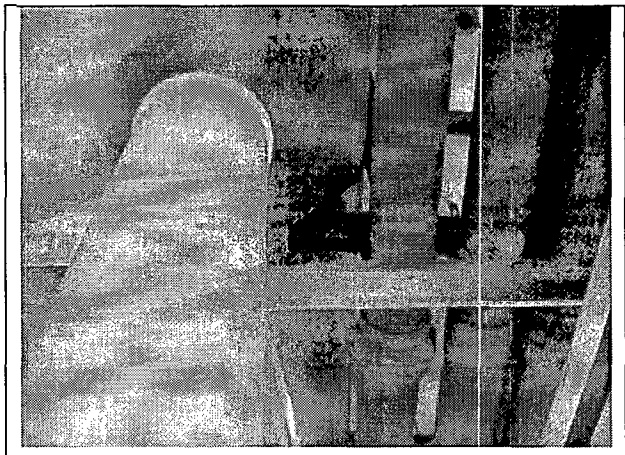
Sheet 5 of 5

Status: Y☒ N☐ U☐

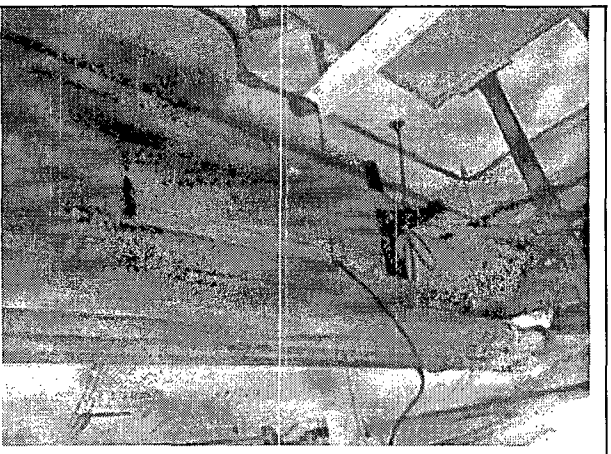
Seismic Walkdown Checklist (SWC) SWEL1-001

Equipment ID No. *M-112A* Equip. Class *0 - Other*

Equipment Description *EDG K-4A EXHAUST MUFFLER*



Note: *View from bottom, looking up at Unistrut penetrating insulation.*



Note: *View of Unistrut support anchored to ceiling.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 002

Equipment ID No. *K-3* Equip. Class[1] *0 - Other*

Equipment Description *TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY*

Location: Bldg. *RAB* Floor El. *335* Room, Area *38*

Manufacturer, Model, Etc. (optional but recommended) *Terry Corporation*

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☒
   This is not part of the 50%.

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 002

Equipment ID No. *K-3* Equip. Class *0 - Other*

Equipment Description *TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY*

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☒
   This item is not part of the 50%.

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

Interaction Effects

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

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 002

Equipment ID No. *K-3* Equip. Class *0 - Other*

Equipment Description *TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Michael E. Perez* Date: *10/8/2012*

Daniel Parker *10/8/2012*

Sheet 4 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 002

Equipment ID No. *K-3* Equip. Class *0 - Other*

Equipment Description *TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY*

Photographs

Note: *Image of the manufacturer nameplate. This was the main identifying tag visible to the SWEs.*

Note: *View of the turbine driver from next to P-7A.*

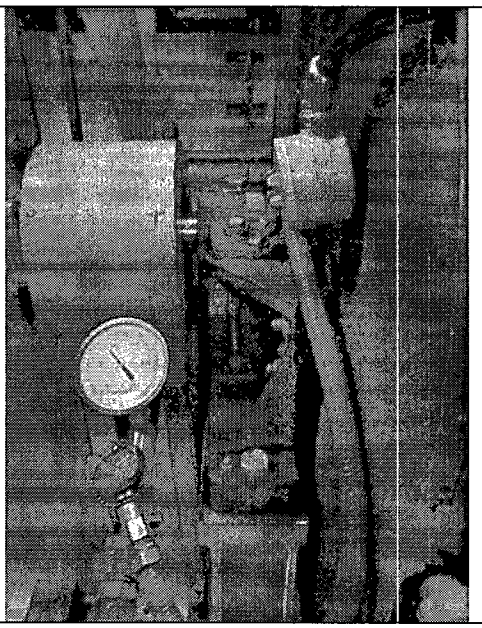
Sheet 5 of 5

Status: Y☒ N☐ U☐

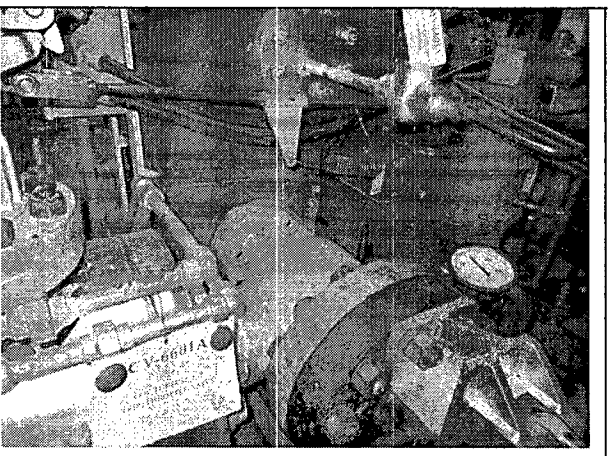
Seismic Walkdown Checklist (SWC) SWEL1- 002

Equipment ID No. *K-3* Equip. Class *0 - Other*

Equipment Description *TURBINE DRIVER FOR EFW PUMP P-7A ASSEMBLY*



Note: *Side view of component.*



Note: *General view of component (painted blue) from behind.*

Sheet 1 of 4

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-003

Equipment ID No. *F-57A* Equip. Class[1] *0 - Other*

Equipment Description *P36A LO COOLER E39A DISCHARGE STRAINER*

Location: Bldg. *RAB* Floor El. *335* Room, Area *56*

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 component.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 4

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-003

Equipment ID No. *F-57A* Equip. Class[2] *0 - Other*

Equipment Description *P36A LO COOLER E39A DISCHARGE 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☒
   Not applicable since this is an in-line component.

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☐
   Soft targets are free from impact by nearby equipment and structures.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   F-57A is mounted near the floor adjacent to the pump body. There is heaving piping and other equipment mounted above that should adequately shield this component from falling objects during a seismic event.

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

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

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

Sheet 3 of 4

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-003

Equipment ID No. *F-57A* Equip. Class[3] *0 - Other*

Equipment Description *P36A LO COOLER E39A DISCHARGE 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

There were no observed adverse conditions that would indicate that F-57A would not perform its safety function during a seismic event.

Evaluated by: *Daniel Parker* Date: *10/12/2012*

Eric Dilbone *10/12/2012*

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

Sheet 4 of 4

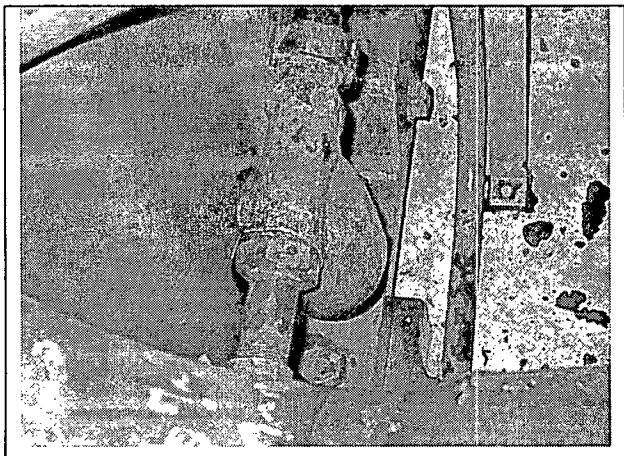
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-003

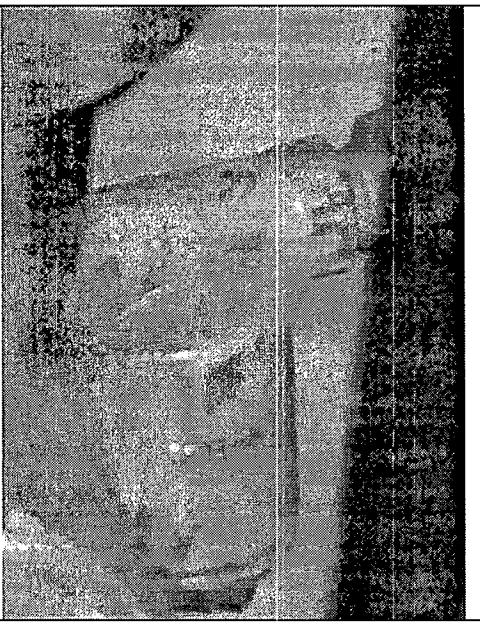
Equipment ID No. *F-57A* Equip. Class[4] *0 - Other*

Equipment Description *P36A LO COOLER E39A DISCHARGE STRAINER*

Photographs



Note: *Component*



Note: *Component Close Up*

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 004

Equipment ID No. *CV-6601A* Equip. Class[1] *0 - Other*

Equipment Description *EFW TURBINE K-3 TRIP/THROTTLE VALVE*

Location: Bldg. *RAB* Floor El. *335* Room, Area *38*

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☒
   This is an in-line component. It is also not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   This is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   This is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   This equipment item is not anchored to concrete. It is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 004

Equipment ID No. *CV-6601A* Equip. Class *0 - Other*

Equipment Description *EFW TURBINE K-3 TRIP/THROTTLE 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☒
   Item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Anchorage that is found within the equipment item is free from adverse seismic conditions above.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   No soft targets are found throughout the equipment item.

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☐
   All overhead equipment appears to be properly secured. Thus, it is unlikely that these will collapse onto the equipment item.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines appear to contain plenty of flexibility.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    There is enough clearance throughout the item, making it very unlikely for any seismic interaction effects with other nearby equipment to occur.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 004

Equipment ID No. *CV-6601A* Equip. Class *0 - Other*

Equipment Description *EFW TURBINE K-3 TRIP/THROTTLE 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☐

    No other seismic conditions have been found to affect the equipment's safety functions.

Comments (Additional pages may be added as necessary)

The equipment item appears to be in adequate condition. No corrosion characteristics have been observed on the item. All attached items contain plenty of flexibility. Overall, there are no seismic hazards that could potentially affect the equipment's integrity and safety functions.

Evaluated by: *Daniel Parker* Date: *10/8/2012*

Michael E. Perez *10/8/2012*

Sheet 4 of 5

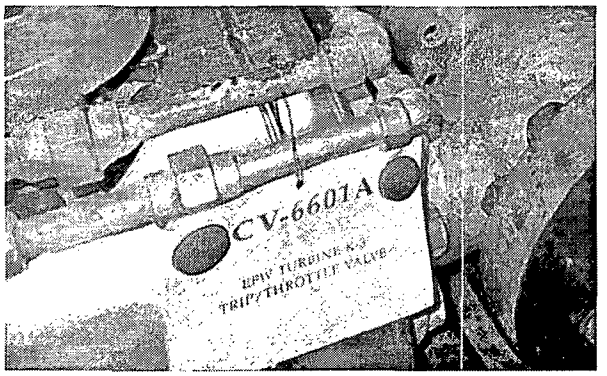
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 004

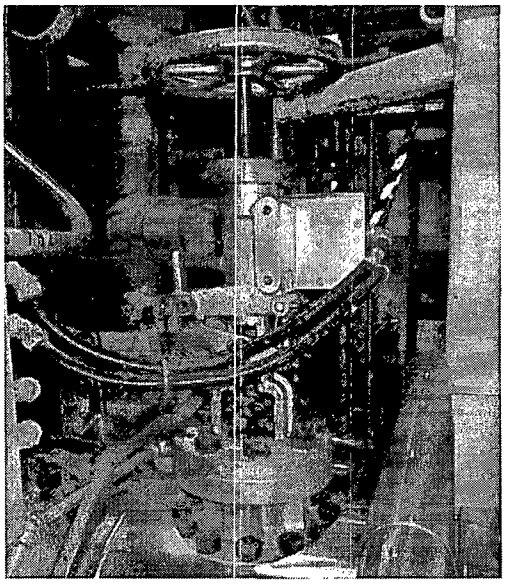
Equipment ID No. *CV-6601A* Equip. Class *0 - Other*

Equipment Description *EFW TURBINE K-3 TRIP/THROTTLE VALVE*

Photographs



Note: *Equipment ID tag.*



Note: *General view of the Item CV-6601A. Note that all attached lines contain adequate flexibility. No sign of corrosion are observed.*

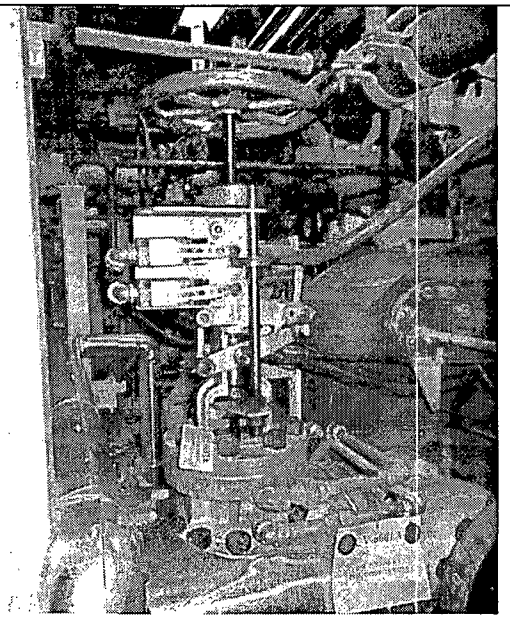
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 004

Equipment ID No. *CV-6601A* Equip. Class *0 - Other*

Equipment Description *EFW TURBINE K-3 TRIP/THROTTLE VALVE*



Note: *Note that the equipment contain plenty of clearance so as to avoid any seismic interactions with any other nearby equipment.*

Note:

Sheet 1 of 7

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. *D-15* Equip. Class[1] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*

Location: Bldg. *RAB* Floor El. *368* Room, Area *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☐
   Anchorage configuration verification is required.

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

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

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

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

Sheet 2 of 7

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. *D-15* Equip. Class[2] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*

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 CALC-94-SQ-1001-01, pages 152-162. The anchorage pattern is consistent with the anchorage sketch, and bolt pattern shown in the referenced calculation.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All visible anchorage was free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   There are no soft targets that could be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   The attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above evaluation, the component is free of potentially adverse seismic interaction effects.

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

Sheet 3 of 7

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. *D-15* Equip. Class[3] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Front and back anchorage was observed with the rear bottom panel removed.

Every cabinet door on the front of the MCC was opened and the interior components were inspected. All interior connections appeared sufficient to support the components during a seismic event.

Evaluated by: *Eric Dilbone* Date: *10/10/2012*

Daniel Parker *10/10/2012*

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

Sheet 4 of 7

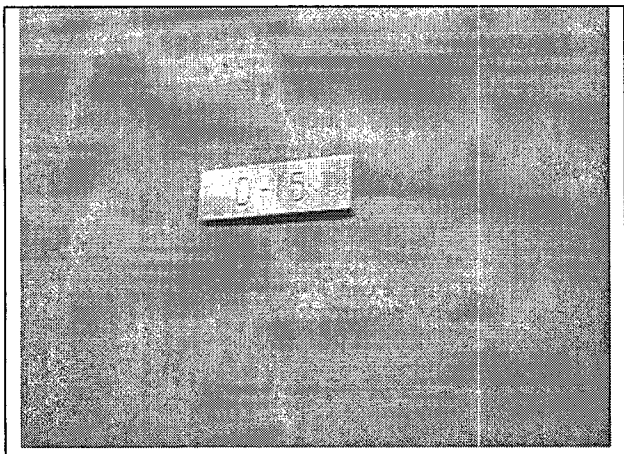
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-005**

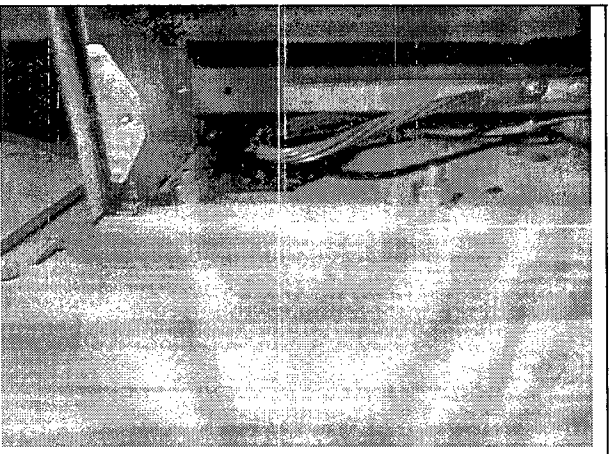
Equipment ID No. *D-15* Equip. Class[4] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*

Photographs



Note: *MCC Identification Tag.*



Note: *Rear Anchorage.*

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

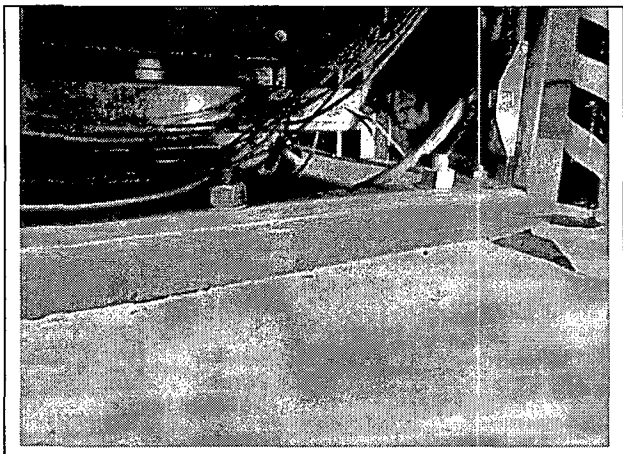
Sheet 5 of 7

Status: Y☒ N☐ U☐

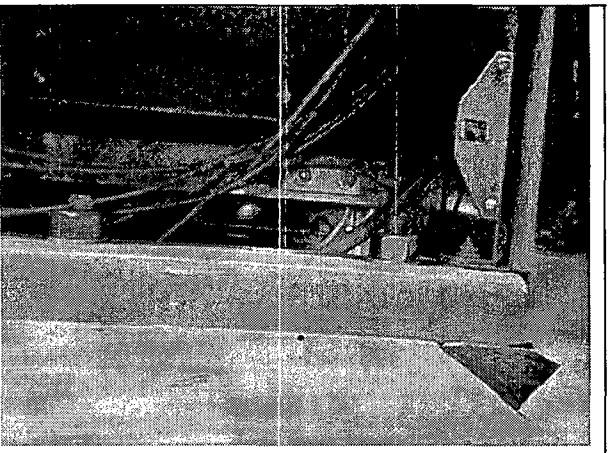
Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. *D-15* Equip. Class[5] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*



Note: *Rear Anchorage*



Note: *Front Anchorage visible.*

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

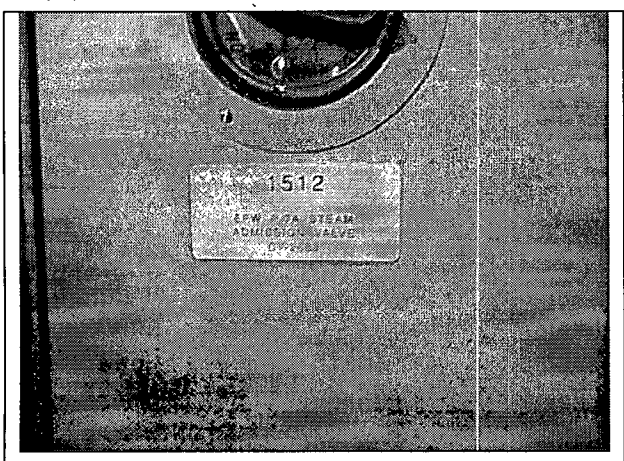
Sheet 6 of 7

Status: Y☒ N☐ U☐

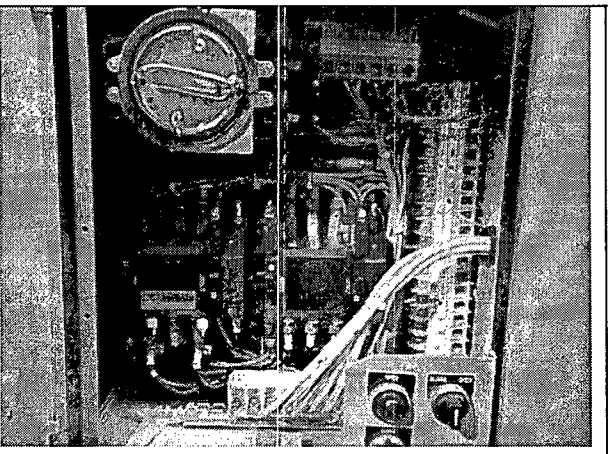
Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. *D-15* Equip. Class[6] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*



Note: *Typical Panel on front of MCC. All panel doors were opened and inspected.*



Note: *Typical Panel of inside of MCC. All panel doors were opened and inspected.*

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

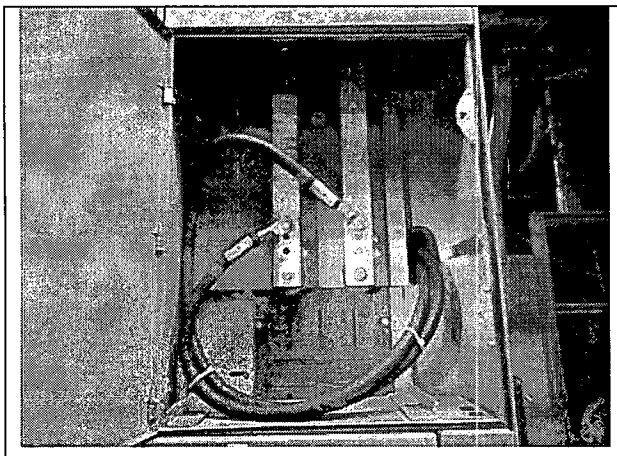
Sheet 7 of 7

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. *D-15* Equip. Class[7] *1 – Motor Control Centers*

Equipment Description *MOTOR CONTROL CENTER*



Note: *Opened Cabinet*

Note:

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. *E-21* Equip. Class[1] *2–Low Voltage Switchgear and Breaker Panels*

Equipment Description *DIESEL GENERATOR NO. 2 EXCITER EQUIPMENT*

Location: Bldg. *RAB* Floor El. *369* Room, Area *86*

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☒
   This inside of the cabinet was not accessible to inspect the full anchorage configuration. See Notes below in Comments section.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent, broken, missing or loose hardware was observed.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. *E-21* Equip. Class *2–Low Voltage Switchgear and Breaker Panels*

Equipment Description *DIESEL GENERATOR NO. 2 EXCITER EQUIPMENT*

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☒
   This is not applicable since it is not part of the 50% of SWEL items requiring anchorage configuration verification.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   We did not observe anything that would indicate that this component seismically deficient or that the anchorage is insufficient.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Soft targets are free from impact by nearby equipment and structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The cabinet is placed 6 ¼" from a RC wall near a transition from a seismic masonry block wall. If the anchorage is properly installed and in good condition than the 6 ¼" spacing is adequate to allow for displacement of the cabinet during a seismic event without any interaction with the RC wall.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. *E-21* Equip. Class *2–Low Voltage Switchgear and Breaker Panels*

Equipment Description *DIESEL GENERATOR NO. 2 EXCITER EQUIPMENT*

Other Adverse Conditions

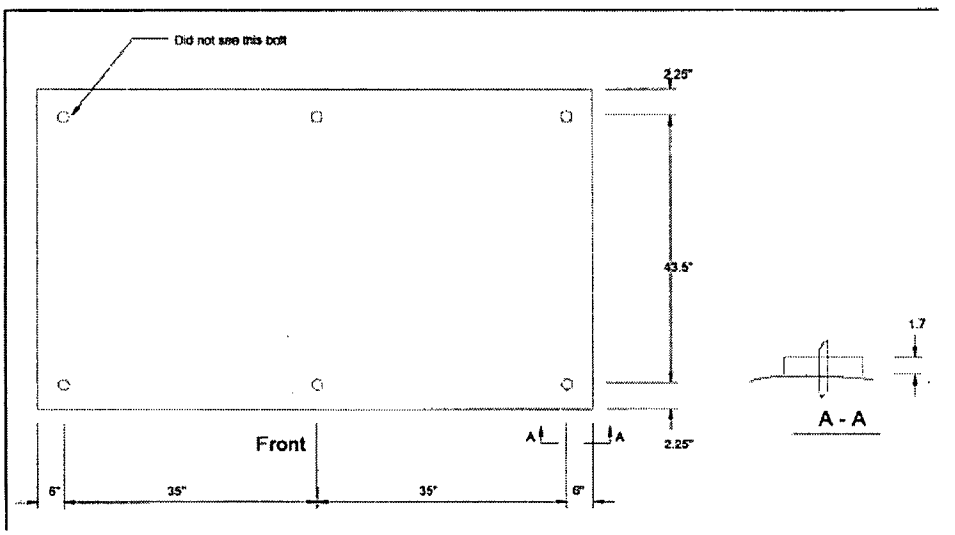
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y☒ N☐ U☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

E-21 is an electrical cabinet with dimensions 95" H x 84" W x 43" D. The plant documentation indicates the cabinet is anchored with six 1" diameter shell-type expansion anchors arranged in the configuration shown as follows.

Anchorage Sketch for E21



Evaluated by: *Daniel Parker* Date: *10/2/2012*

Eric Dilbone *10/2/2012*

Sheet 4 of 5

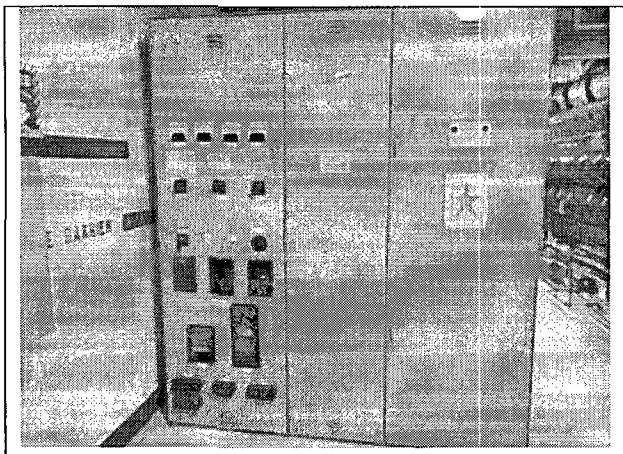
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-006**

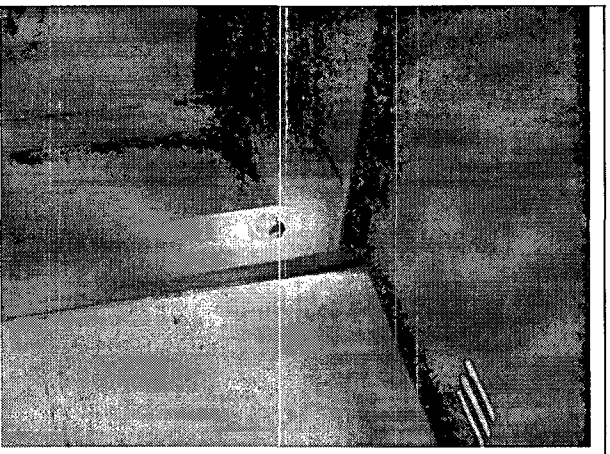
Equipment ID No. *E-21* Equip. Class *2–Low Voltage Switchgear and Breaker Panels*

Equipment Description *DIESEL GENERATOR NO. 2 EXCITER EQUIPMENT*

Photographs



Note: *Front of E-21Cabinet.*



Note: *Expansion Anchor Bolt, Only bolt visible with front panel door open without breaking plane of door. Rear line of bolts inaccessible without breaking plane.*

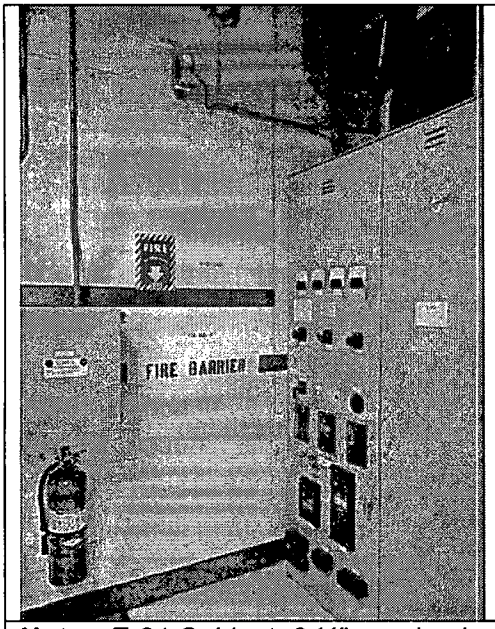
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. *E-21* Equip. Class *2–Low Voltage Switchgear and Breaker Panels*

Equipment Description *DIESEL GENERATOR NO. 2 EXCITER EQUIPMENT*



Note: *E-21 Cabinet, 6 ¼" spacing between RC wall. Transition between seismic masonry block and RC wall in front of cabinet (vertical gray line.)*

Note:

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-007

Equipment ID No. *B-6* Equip. Class[1] *2 - Low Voltage Switchgear and Breaker Panels*

Equipment Description *480V LOAD CENTER BUS B-6*

Location: Bldg. *RAB* Floor El. *372* Room, Area *99*

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☐
   This load center is part of the 50% of SWEL items requiring an anchorage configuration verification.

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

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

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-007

Equipment ID No. *B-6* Equip. Class *2 - Low Voltage Switchgear and Breaker Panels*

Equipment Description *480V LOAD CENTER BUS B-6*

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 plant documentation. The anchorage consists of plug welds to a grouted-in top base channel. The channels are anchored into the concrete with expansion anchors. The anchorage configuration was consistent with CALC-94-SQ-1001-02, pages 16-18, and drawing C-272, Sheet 1, Rev. 9.

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

   Based on the above anchorage evaluations, the achorage is free of potentially adverse seismic conditions.

Interaction Effects

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

   Soft targets are free from impact by nearby equipment or structures. All soft targets are contained within the load center cubicles.

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

   Overhead equipment, distribution systems and lighting are not likely to collapse onto the equipment. There are no ceiling tiles or masonry block walls in the area.

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

   Attached lines have adequate flexibility to avoid damage.

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

    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-007**

Equipment ID No. *B-6* Equip. Class *2 - Low Voltage Switchgear and Breaker Panels*

Equipment Description *480V LOAD CENTER BUS B-6*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

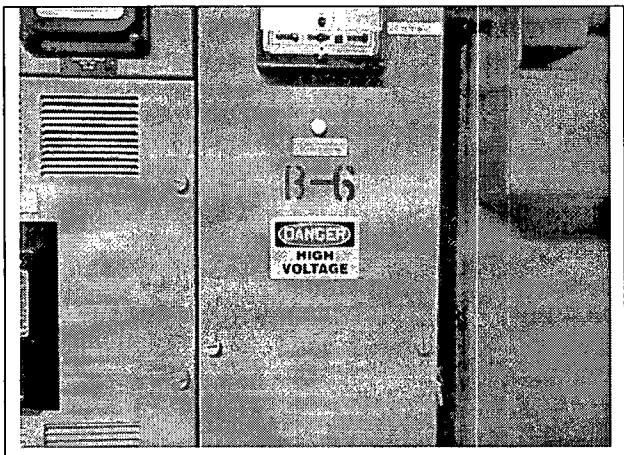
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-007**

Equipment ID No. *B-6* Equip. Class *2 - Low Voltage Switchgear and Breaker Panels*

Equipment Description *480V LOAD CENTER BUS B-6*

Photographs



Note: *View of identifying marker on load center.*

Note: *General view of B-6 load center.*

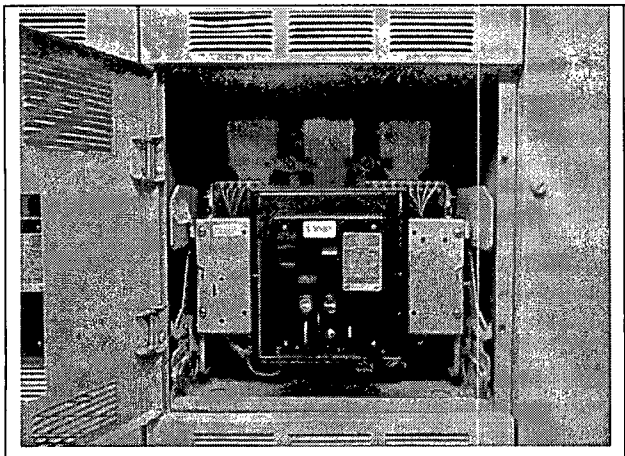
Sheet 5 of 5

Status: Y☒ N☐ U☐

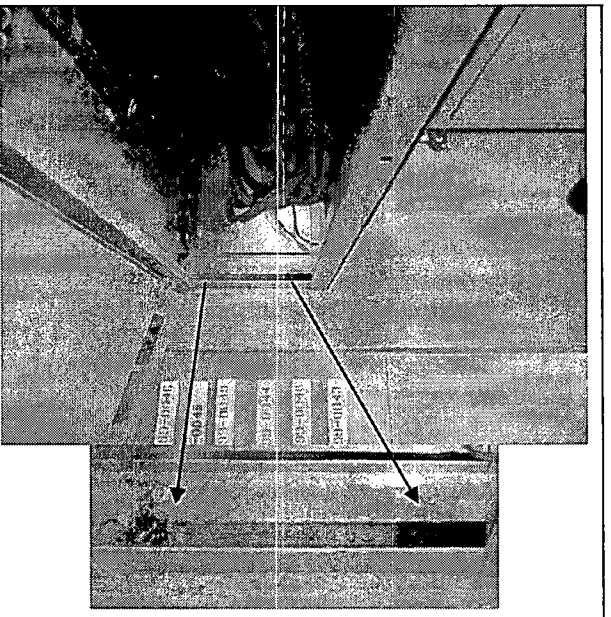
Seismic Walkdown Checklist (SWC) **SWEL1-007**

Equipment ID No. *B-6* Equip. Class *2 - Low Voltage Switchgear and Breaker Panels*

Equipment Description *480V LOAD CENTER BUS B-6*



Note: *Example of the inside of one of the cubicles of B-6. Shown above is cubicle 613--"B6 B5 CROSSTIE".*



Note: *Shown above are two representative plug welds anchoring the cabinet to the steel channel. The lower image is a zoomed version of the upper image to show detail.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-008

Equipment ID No. *X-52* Equip. Class[1] *4 - Transformers*

Equipment Description *Y-03 POWER SUPPLY*

Location: Bldg. *RAB* Floor El. *372* Room, Area *100*

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☐
   Anchorage configuration verification is required for this component.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent, broken or loose hardware were observed at the points of anchorage.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   No concrete cracks were observed in the vicinity of the anchor bolts.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-008

Equipment ID No. *X-52* Equip. Class *4 - Transformers*

Equipment Description *Y-03 POWER SUPPLY*

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☐
   Yes, the anchorage was determined to be in conformance with CALC-94-SQ-1001-04, pages 25-28.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   No potentially adverse seismic conditions affecting the anchor bolts were observed.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets were identified.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no block walls. Cable trays and pipe supports are adequately supported.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    No potentially adverse seismic interaction effects were observed.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-008

Equipment ID No. *X-52* Equip. Class *4 - Transformers*

Equipment Description *Y-03 POWER SUPPLY*

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☐
    No other adverse seismic conditions were observed.

Comments (Additional pages may be added as necessary)

Equipment anchorage was clean and observed to be free from adverse seismic conditions.

Evaluated by: *Daniel Andoh* Date: *10/11/2012*

Genaro Barragan Jr. *10/11/2012*

Sheet 4 of 5

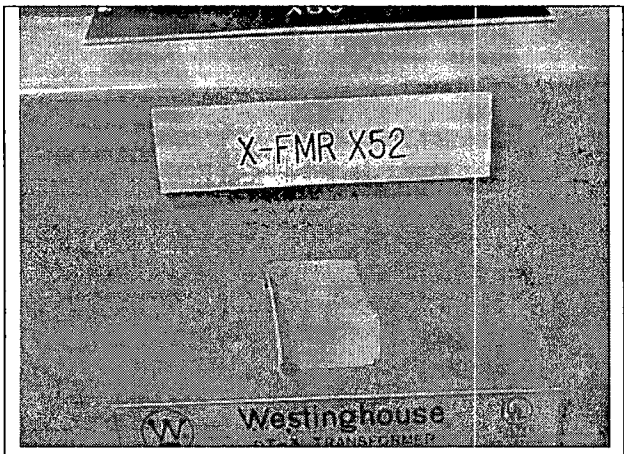
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-008**

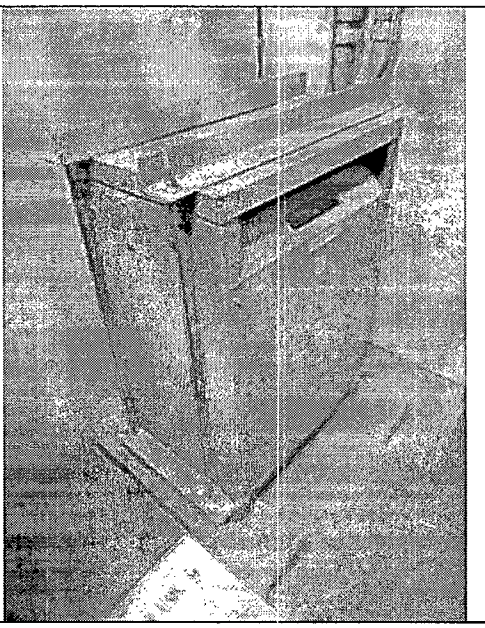
Equipment ID No. *X-52* Equip. Class *4 - Transformers*

Equipment Description *Y-03 POWER SUPPLY*

Photographs



Note: *Equipment Tag*



Note: *Side View*

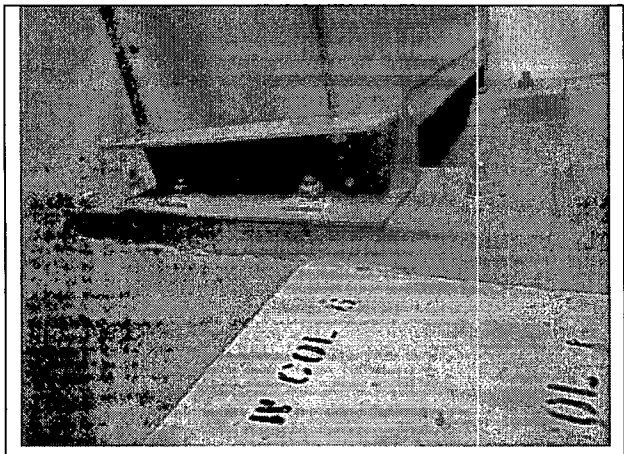
Sheet 5 of 5

Status: Y☒ N☐ U☐

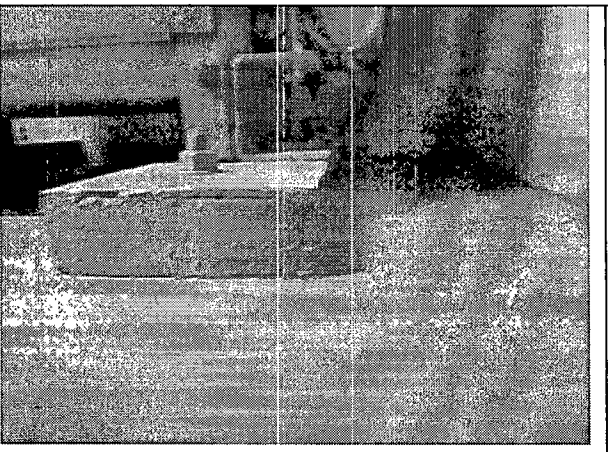
Seismic Walkdown Checklist (SWC) **SWEL1-008**

Equipment ID No. *X-52* Equip. Class *4 - Transformers*

Equipment Description *Y-03 POWER SUPPLY*



Note: *Anchorage at base*



Note: *Anchorage at base*

Sheet 1 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. *N/A* Equip. Class[1] *N/A*

Equipment Description *NOT USED*

Location: Bldg. *N/A* Floor El. *N/A* Room, Area *N/A*

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.

Sheet 2 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. *N/A* Equip. Class[2] *N/A*

Equipment Description *NOT USED*

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.

Sheet 3 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-009**

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: _____ Date: _____

Sheet 4 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

Note:	**Note:**

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. *P-16A* Equip. Class[1] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*

Location: Bldg. *DSB* Floor El. *YARD* Room, Area *252*

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☐
   Anchorage configuration verification is required for this item. This item is part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   There are 4 anchor bolts; no loose or missing hardware within the equipment item.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   There is mild surface oxidation on anchor bolts and a coating of fuel oil on pump.This has no adverse seismic impacts.

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. *P-16A* Equip. Class[2] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER 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☐
   Documentation from SEWS (94-SQ-1001-05) matches anchorage in field. 4-3/8" anchor bolts with 10"x22" skid; however, the DWG C-48 REV. 8 does not match infield conditions. CR-ANO-1-2012-1534 has been initiated.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Dimensions of the anchorage drawings and the as-built conditions do not match. However, this likely will not cause a potentially adverse seismic condition.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft target interaction effects.
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☐
   No tiles overhead, No masonry walls, 4 lights in room supported. Conduit is supported well. The vent above the door frame appears improperly installed or out of line (Penetration 252-0008). CR-ANO-1-2012-1535 has been initiated. Platform and ladder are anchored well.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    There is a hose in room that is secured.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. *P-16A* Equip. Class[3] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER 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☐

    No other seismic conditions were found that could affect the component's integrity and safety functions.

Comments (Additional pages may be added as necessary)

Tag description in field is different from Asset Suite description, but both these descriptions referred to the same item. One of the issues found here were the inconsistency of anchor dimensions between the documentation and the measurements performed on site. The other issue is the vent above the door frame appears to be out of line and can potentially collapse onto the equipment item. Other than this, all other parts of the component appear to be in adequate conditions.

Evaluated by: *Roy Berryman* Date: *10/09/2012*

Michael E. Perez *10/09/2012*

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

Sheet 4 of 5

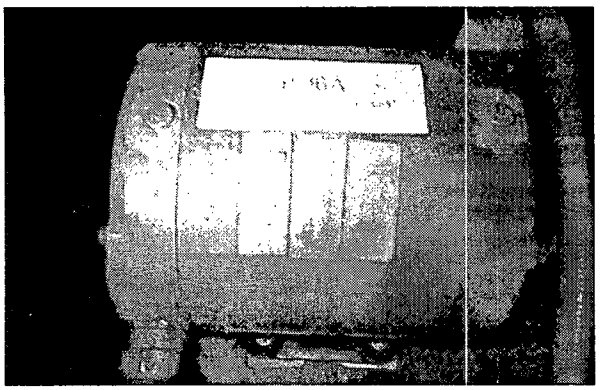
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-010**

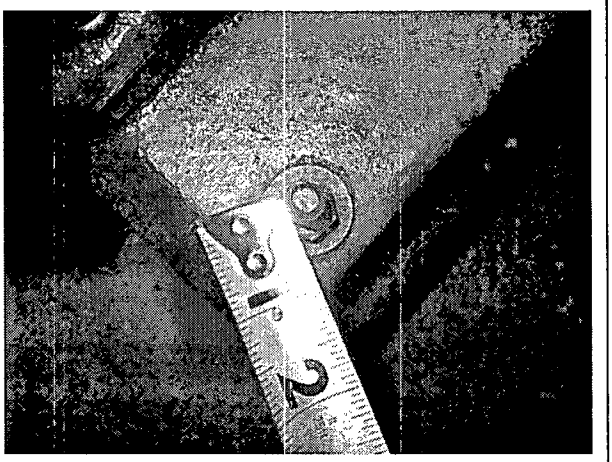
Equipment ID No. *P-16A* Equip. Class[4] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*

Photographs



Note: *Equipment tag ID for Item P-16A.*



Note: *Although the anchor dimensions matched with those specified in the documentation, the concrete platform dimensions of the item did not match.*

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

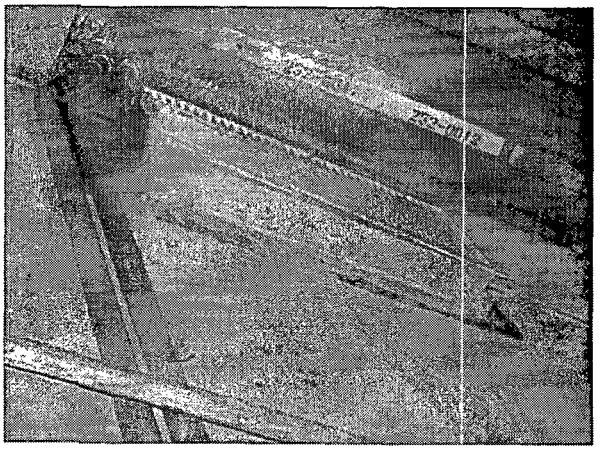
Sheet 5 of 5

Status: Y☒ N☐ U☐

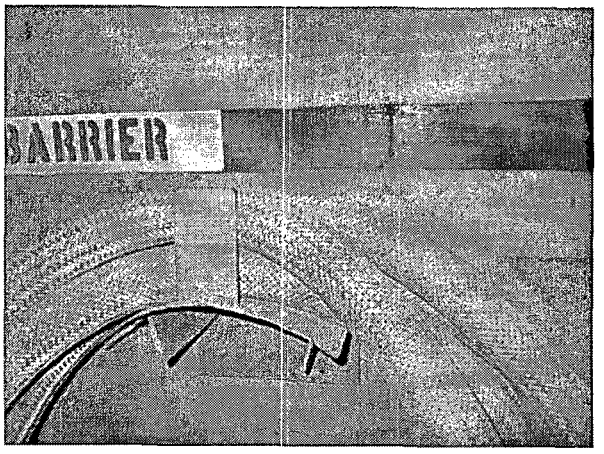
Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. *P-16A* Equip. Class[5] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*



Note: *The vent above the door frame appears to be out of line. This could potentially collapse on the component during a seismic event.*



Note: *There is a hose near the item, but it is properly secured. This it is unlikely for seismic interaction to occur with the component during a seismic hazard.*

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 011

Equipment ID No. *P-108A* Equip. Class[1] *5 - Horizontal Pumps*

Equipment Description *MAIN L.O. PUMP*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   Item is not part of the 50%.

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   The anchorage is free of corrosion, and the anchorage is painted blue. Some of the paint is chipped off on the anchor bolts.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   The pump is anchored directly to the diesel engine. No cracks in the concrete around the skid were observed.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 011

Equipment ID No. *P-108A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *MAIN L.O. 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☒
   Item is not part of the 50%.

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets to be impacted by nearby equipment or structures.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The pump is mounted against the diesel, and overhead equipment is supported with all anchors visible.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility, or are rigidly fixed to the pump.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 011

Equipment ID No. *P-108A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *MAIN L.O. 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

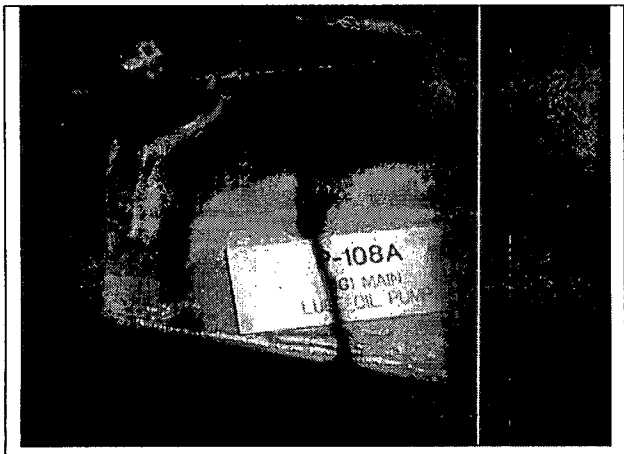
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 011

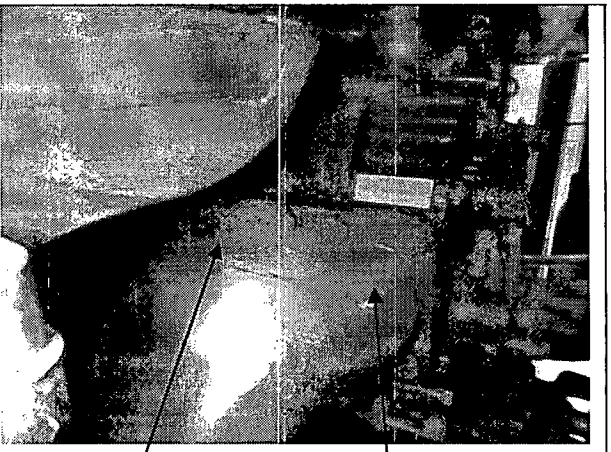
Equipment ID No. *P-108A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *MAIN L.O. PUMP*

Photographs



Note: *Equipment ID tag identifying the pump.*



Note: *The Main Lube Oil Pump, P-108A, is seen on the left side of this image. After exiting the Main Lube Oil Pump Filter, the oil splits between P-108A (left), and the Piston Cooling Lube Oil Pump, P-109A (right).*

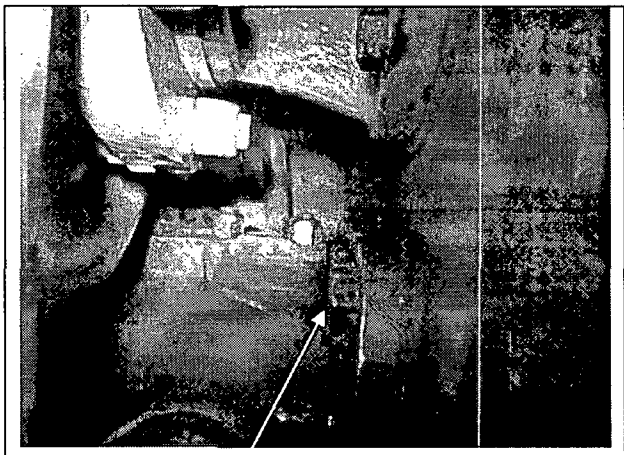
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 011

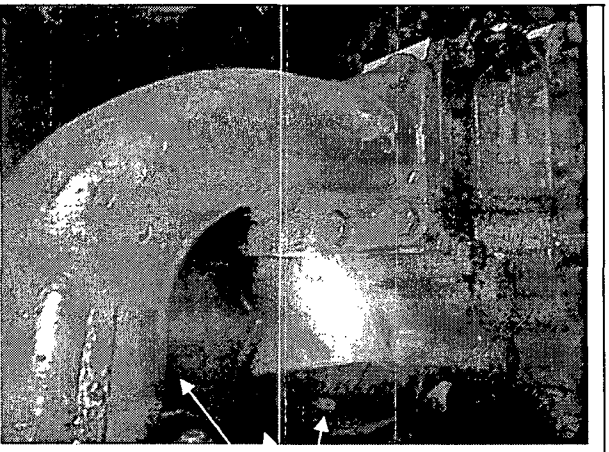
Equipment ID No. *P-108A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *MAIN L.O. PUMP*



Anchor bolt to EDG

Note: *View from North side of EDG showing anchorage of pump to EDG.*



Anchor bolts to EDG

Note: *View from South side of EDG showing anchorage of pump to EDG.*

Sheet 1 of 8

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[1] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) TURBINE DRIVEN*

Location: Bldg. *RAB* Floor El. *335* Room, Area *38*

Manufacturer, Model, Etc. (optional but recommended) *INGERSOLL-RAND, No. 0270-89*

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☐
   Pump attached to large steel skid. Skid connected with 12 cast-in-place anchors, six along each side.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Pump has all anchor bolts; no loose or missing hardware within the equipment item.

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

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

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

Sheet 2 of 8

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[2] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) 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.) Y☒ N☐ U☐ N/A☐
   The anchorage configuration is consistent with Drawing C-281, Sht. 3, Rev. 1., as well as with CALC-94-SQ-1001-05, pages 122-133.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft target interaction effects.
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 large diameter pipe coming out of a penetration at the near wall and extending approximately 25' across the width of the room to the first vertical support above P-7B. A large valve is in-line above P-7A that represents an offset mass that is putting torsion on the pipe. No adverse conditions observed due to this configuration.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

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

Sheet 3 of 8

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[3] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Michael E. Perez* Date: *10/8/2012*

Daniel Parker *10/8/2012*

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

Sheet 4 of 8

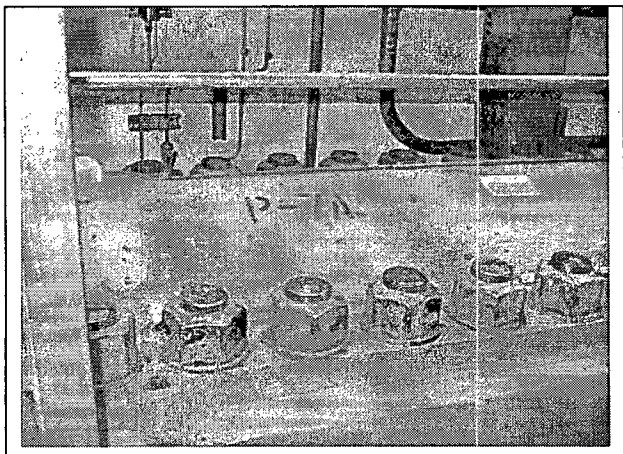
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[4] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) TURBINE DRIVEN*

Photographs



Note: *P-7A Identification, Stencil on top of pump body.*

Note: *Typical Cast-In-Place anchor for large steel skid, 12 total, six along each long side.*

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

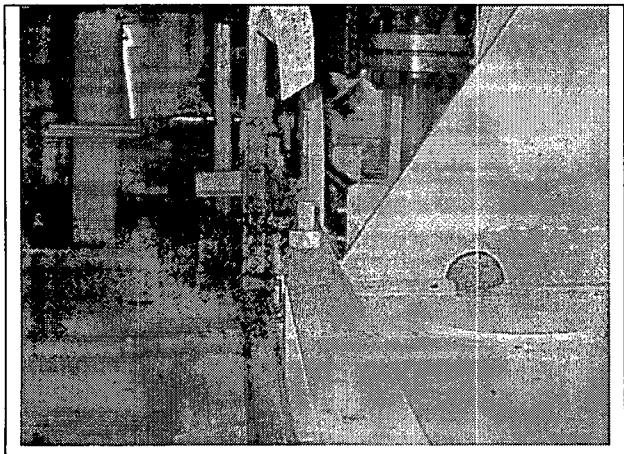
Sheet 5 of 8

Status: Y☒ N☐ U☐

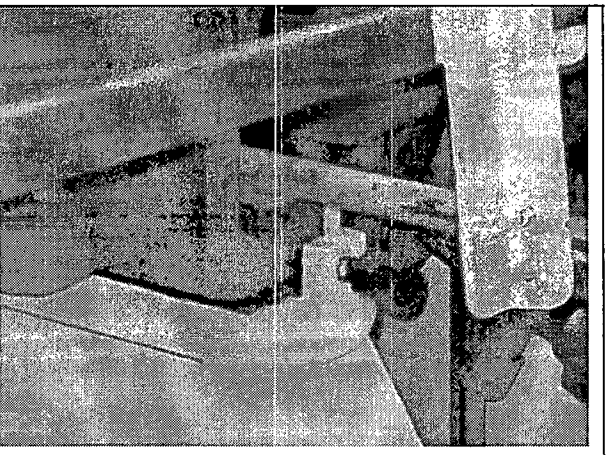
Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[5] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) TURBINE DRIVEN*



Note: *Typical Cast-In-Place anchor for large steel skid, 12 total, six along each long side.*



Note: *Connection between pump and steel skid. Horizontal bolts for alignment. 4 total, one at each corner.*

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

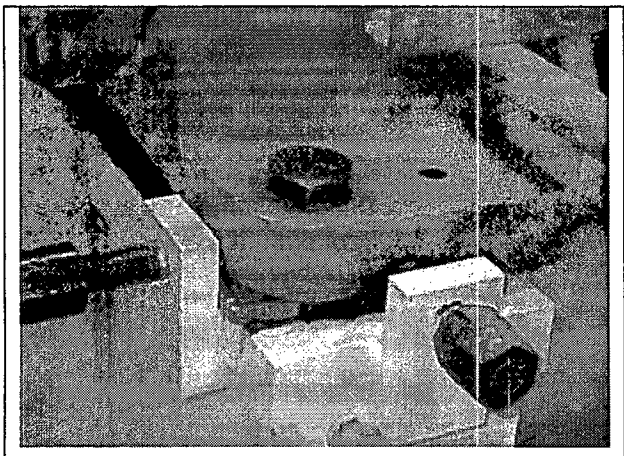
Sheet 6 of 8

Status: Y☒ N☐ U☐

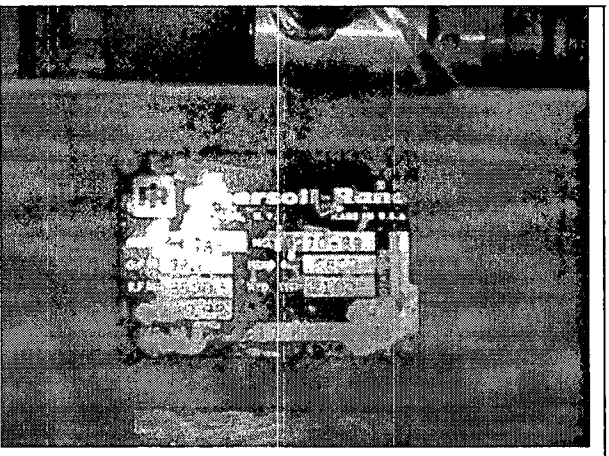
Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[6] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) TURBINE DRIVEN*



Note: *Connection between pump and steel skid. Horizontal bolts for alignment. 4 total, one at each corner.*



Note: *Manufacturer Tag.*

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

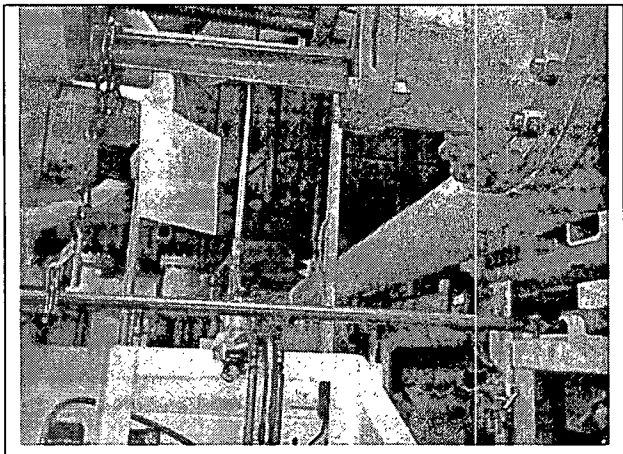
Sheet 7 of 8

Status: Y☒ N☐ U☐

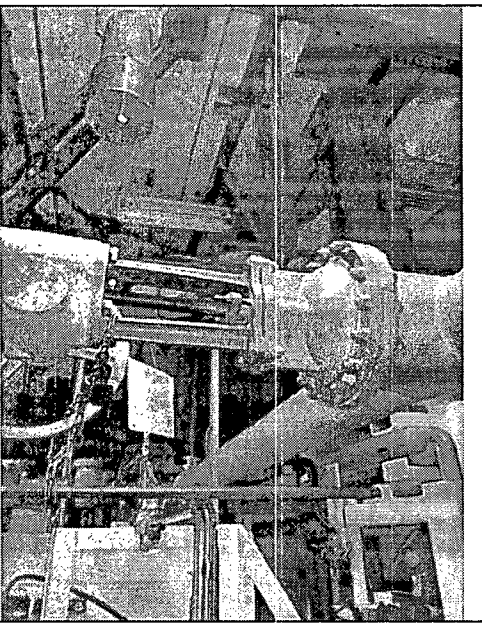
Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[7] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) TURBINE DRIVEN*



Note: *Overhead pipe and valve with long unsupported length. Unsupported length, vertical support above P-7B.*



Note: *Overhead pipe and valve with long unsupported length. Valve above P-7A.*

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

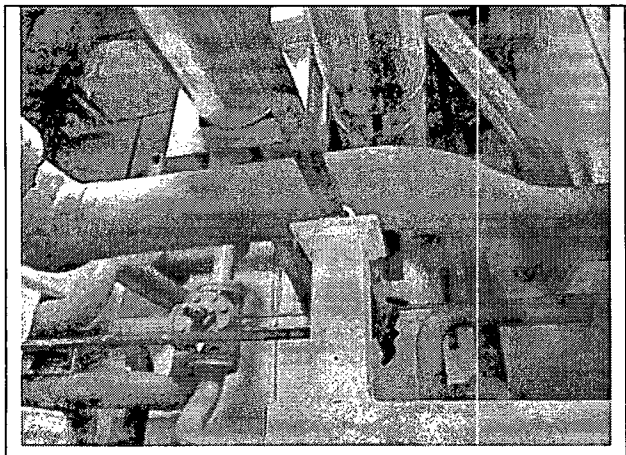
Sheet 8 of 8

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. *P-7A* Equip. Class[8] *5 – HORIZONTAL PUMPS*

Equipment Description *EMERGENCY F.W. PUMP (K-3) TURBINE DRIVEN*



Note: *Overhead pipe and valve with long un-supported length. Wall penetration to in-line valve above P-7A.*

Note:

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

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. *P-106B2* Equip. Class[1] *5 – HORIZONTAL PUMPS*

Equipment Description *DG2 AC LUBE OIL SOAK BACKPUMP*

Location: Bldg. *RAB* Floor El. *369* Room, Area *86*

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☒
   The P-106B2 pump is bolted with eight 3/8" bolts to the mounting brackets. The mounting brackets are welded to the side of the skid.

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   The pump is anchored to the EDG skid. No cracks in the concrete around the skid were observed

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. *P-106B2* Equip. Class[2] *5 – HORIZONTAL PUMPS*

Equipment Description *DG2 AC LUBE OIL SOAK BACKPUMP*

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☒
   This is not applicable since it is not part of the 50% of SWEL items requiring anchorage configuration verification.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   The pump is mounted to the side of the skid below the access platform. The access platform will shield the pump from overhead falling objects.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead equipment, distribution systems and lighting are not likely to collapse onto the pump. The pump is mounted beneath the side metal grating on the EDG skid, so it is protected from falling equipment.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

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

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. *P-106B2* Equip. Class[3] *5 – HORIZONTAL PUMPS*

Equipment Description *DG2 AC LUBE OIL SOAK BACKPUMP*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Eric Dilbone* Date: *10/2/2012*

Daniel Parker *10/2/2012*

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

Sheet 4 of 6

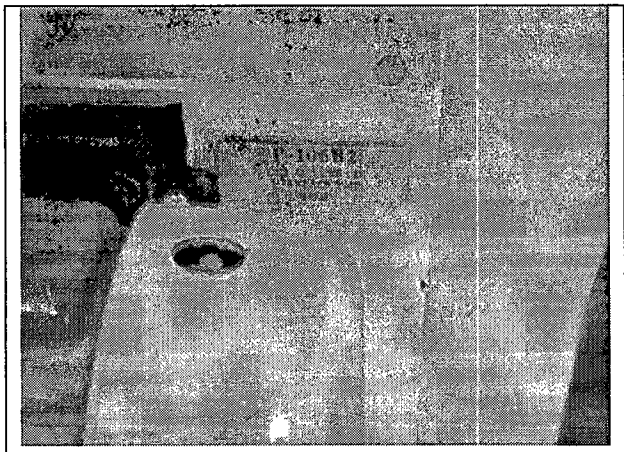
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-013

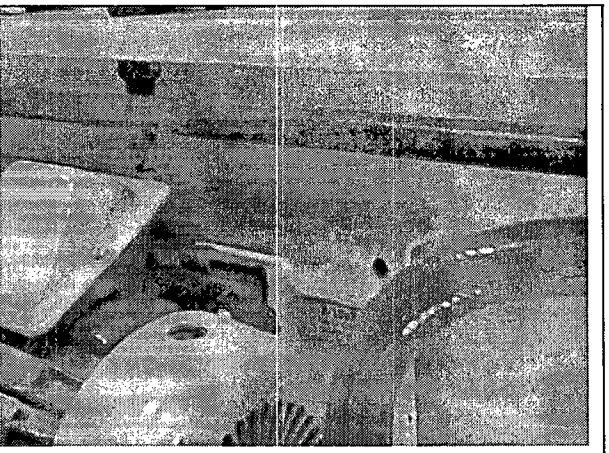
Equipment ID No. *P-106B2* Equip. Class[4] *5 – HORIZONTAL PUMPS*

Equipment Description *DG2 AC LUBE OIL SOAK BACKPUMP*

Photographs



Note: *Component ID*



Note: *Component Anchorage*

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

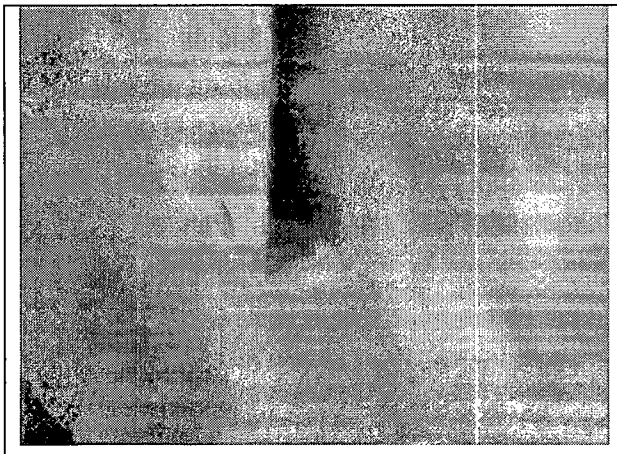
Sheet 5 of 6

Status: Y☒ N☐ U☐

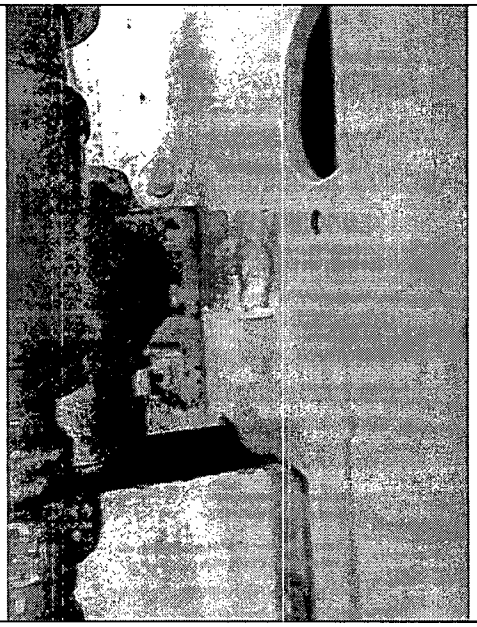
Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. *P-106B2* Equip. Class[5] *5 – HORIZONTAL PUMPS*

Equipment Description *DG2 AC LUBE OIL SOAK BACKPUMP*



Note: *Anchorage Close Up*



Note: *Anchorage*

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

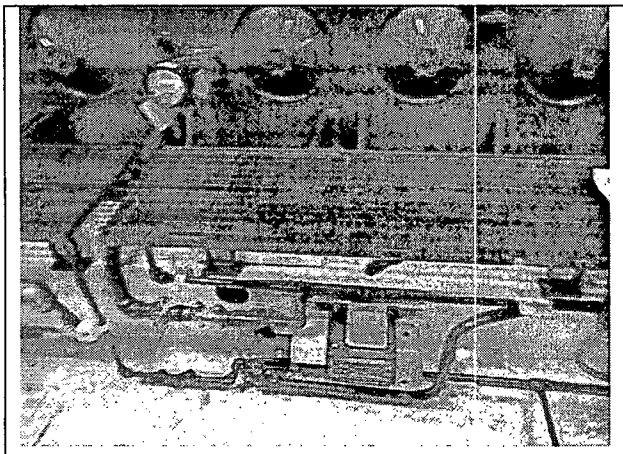
Sheet 6 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. *P-106B2* Equip. Class[6] *5 – HORIZONTAL PUMPS*

Equipment Description *DG2 AC LUBE OIL SOAK BACKPUMP*



Note: *Component Overview*

Note:

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

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-014

Equipment ID No. *P-16B* Equip. Class[1] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*

Location: Bldg. *DSB* Floor El. *YARD* Room, Area *251*

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☐
   Anchorage configuration verification is required for this item. It is part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   There are 4 anchor bolts; no loose or missing hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   There is mild surface oxidation on anchor bolts and a coating of fuel oil on pump. A minor oil leak is evident throughout the pump, but this has already been acknowledged by maintenance.

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

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-014

Equipment ID No. *P-16B* Equip. Class[2] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER 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☐
   Documentation from CALC-94-SQ-1001-05, page 80 matches anchorage in field. 4-3/8" anchor bolts with 10"x22" skid; however, the DWG C-48 REV. 8 does not match infield conditions. CR-ANO-1-2012-1534 has been initiated.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Dimensions measured in field do not match drawings. While this must be fixed, it is unlikely that this minor discrepancy creates an adverse seismic condition.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft target interaction effects.
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☐
   No tiles overhead, No masonry walls, 4 lights in room supported. Conduit is supported well. The Platform and ladder are anchored well, but two bolts are slightly bent. CR-ANO-1-2012-1538 has been initiated.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Equipment is free from adverse seismic interaction effects.

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

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-014

Equipment ID No. *P-16B* Equip. Class[3] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER 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☐

    No other seismic conditions were found that could affect the component's integrity and safety functions.

Comments (Additional pages may be added as necessary)

Tag description in field is different from Asset Suite description, but both these descriptions referred to the same item. One of the issues found here were the inconsistency of anchor dimensions between the documentation and the measurements performed on site. The other issue is that although the anchorage for the platform above the equipment item is adequate, its bolts located below the platform are slightly bent. There is a chance that these can damage over time and cause for the platform to collapse. Other than this, all other parts of the component appear to be in adequate conditions.

Evaluated by: *Roy Berryman* Date: *10/10/2012*

Michael E. Perez *10/10/2012*

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

Sheet 4 of 6

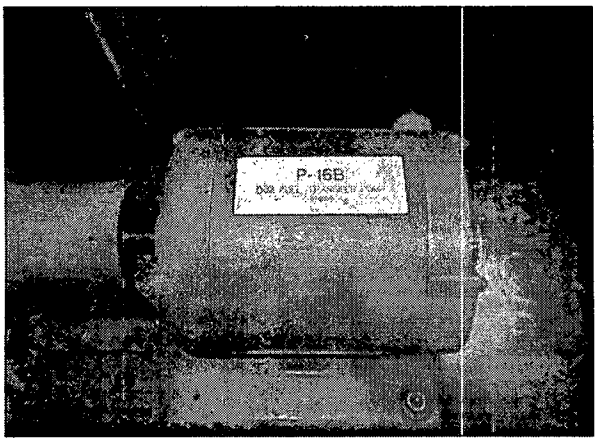
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-014**

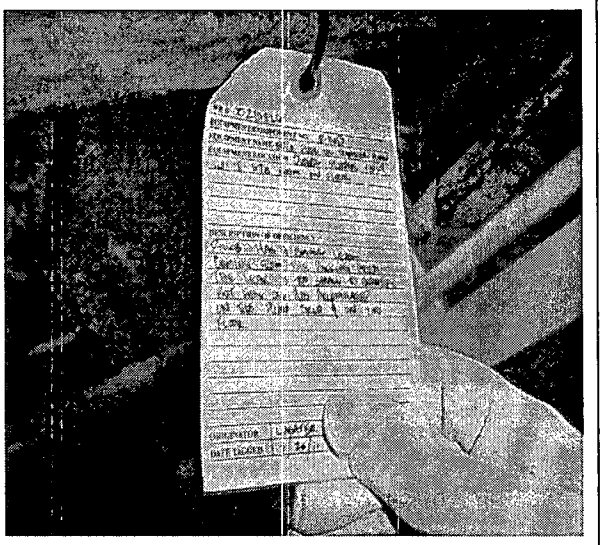
Equipment ID No. *P-16B* Equip. Class[4] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*

Photographs



Note: *Equipment tag ID for Item P-16B.*



Note: *A minor oil leak is evident for this component, but this has already been acknowledged by maintenance. A deficiency tag has already been provided on site.*

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

Sheet 5 of 6

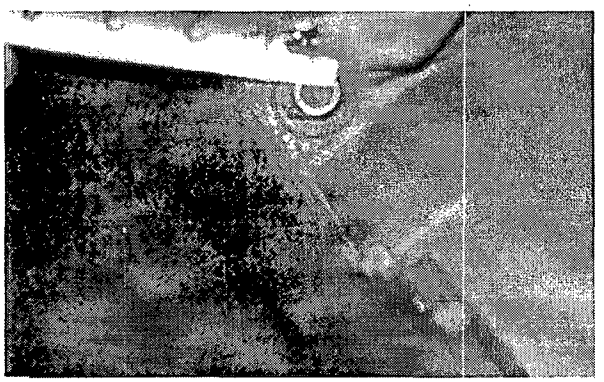
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-014

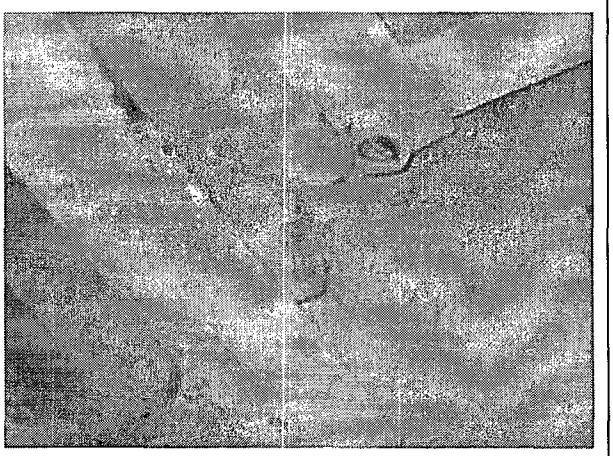
Equipment ID No. *P-16B* Equip. Class[5] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*

Photographs



Note: *Although the anchor dimensions matched with those specified in the documentation, the concrete platform dimensions of the item did not match.*



Note: *Although anchorage is properly installed below the platform, there are two bolts that appear to be slightly bent. This may need to be adjusted.*

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

Sheet 6 of 6

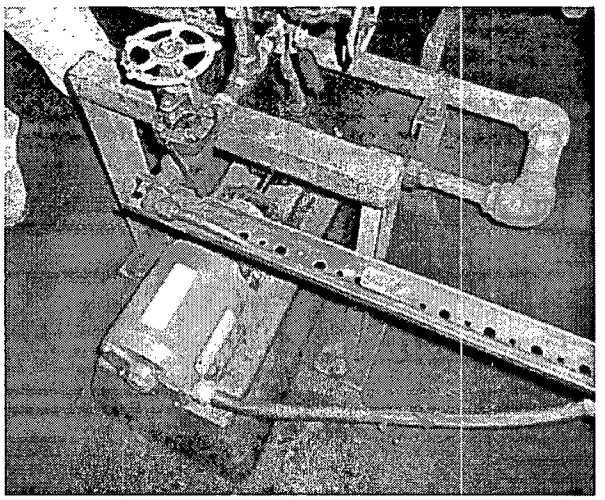
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-014

Equipment ID No. *P-16B* Equip. Class[6] *5 - Horizontal Pumps*

Equipment Description *EMER DIESEL FUEL TRANSFER PUMP*

Photographs



Note: *Attached lines throughout component are shown to have adequate flexibility.*

Note:

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 015

Equipment ID No. *P-104A* Equip. Class[1] *5 - Horizontal Pumps*

Equipment Description *DG1 FUEL PRIMING PUMP*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   Item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   All anchorage to the skid is visible, and is observed to be free of bent, broken, missing and loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   There is no visible corrosion on exposed metal hardware. Some anchorage is painted blue, and there is no visible corrosion on that either.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   The pump is anchored to the skid. No cracks were observed in the concrete around the skid.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 015

Equipment ID No. *P-104A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *DG1 FUEL PRIMING 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☒
   Item is not part of the 50%.

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

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead equipment is mounted directly to the skid as well, and is not likely to collapse onto the pump.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 015

Equipment ID No. *P-104A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *DG1 FUEL PRIMING 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

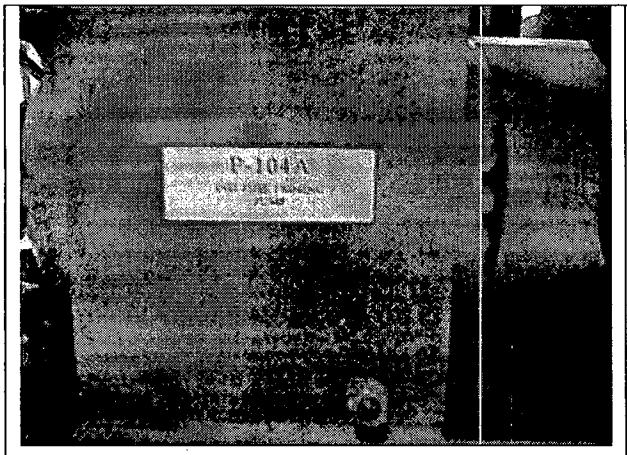
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 015**

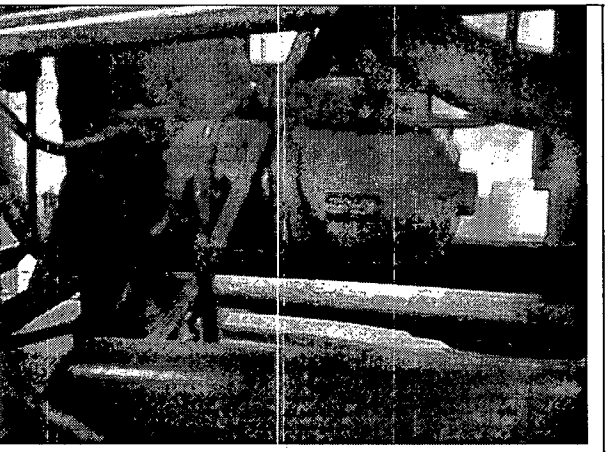
Equipment ID No. *P-104A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *DG1 FUEL PRIMING PUMP*

Photographs



Note: *Equipment ID tag identifying the pump.*



Note: *General view of the pump and motor.*

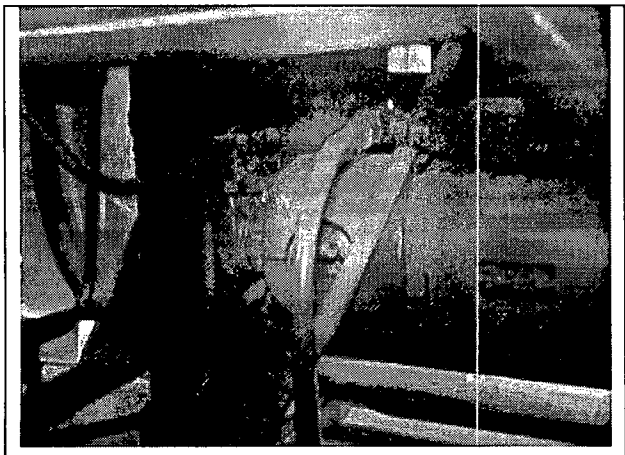
Sheet 5 of 5

Status: Y☒ N☐ U☐

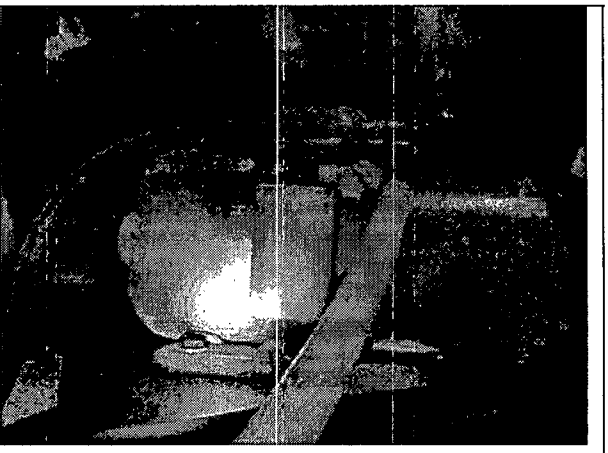
Seismic Walkdown Checklist (SWC) SWEL1- 015

Equipment ID No. *P-104A* Equip. Class *5 - Horizontal Pumps*

Equipment Description *DG1 FUEL PRIMING PUMP*



Note: *Zoomed view of the pump.*



Note: *View of anchorage of P-104A to the engine skid.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 016

Equipment ID No. *CV-5218* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *KMA-3/4 AIR RELAY*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   The valve is mounted in-line, and is supported by the attached piping.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 016

Equipment ID No. *CV-5218* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *KMA-3/4 AIR RELAY*

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☒
   Item is not part of the 50%.

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

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The valve is mounted below the metal grating on the engine skid, so it is free of interaction effects from overhead equipment.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 016

Equipment ID No. *CV-5218* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *KMA-3/4 AIR RELAY*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

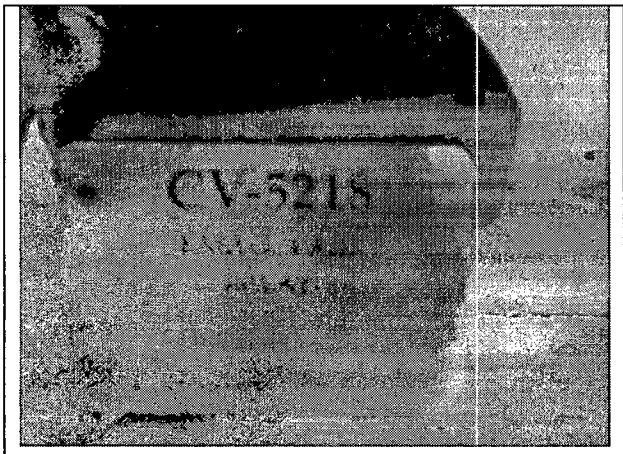
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 016**

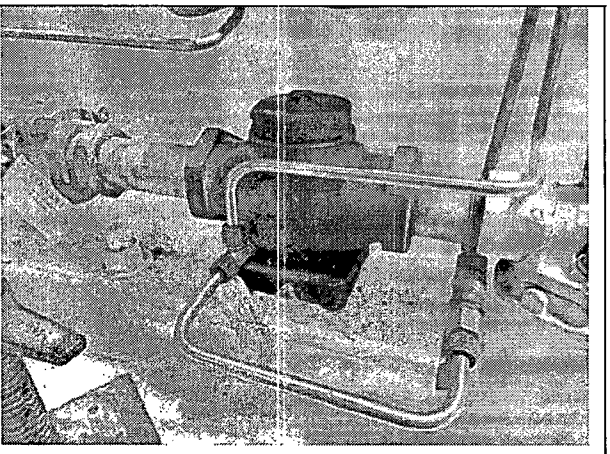
Equipment ID No. *CV-5218* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *KMA-3/4 AIR RELAY*

Photographs



Note: *Equipment ID tag identifying the valve.*



Note: *General view of the valve mounted in-line with the piping.*

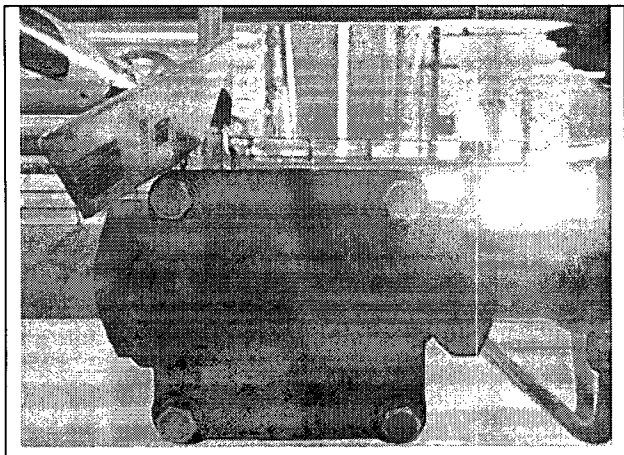
Sheet 5 of 5

Status: Y☒ N☐ U☐

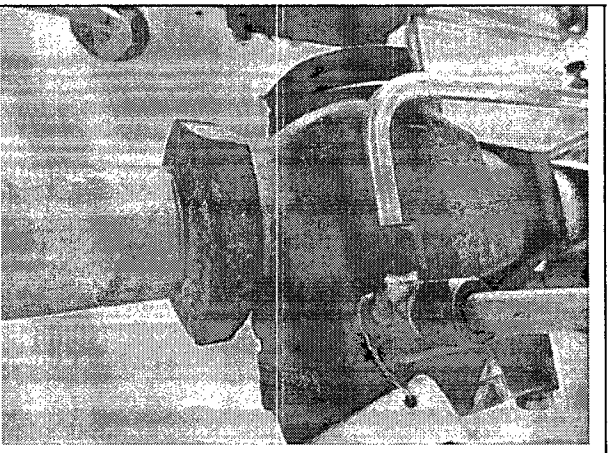
Seismic Walkdown Checklist (SWC) **SWEL1- 016**

Equipment ID No. *CV-5218* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *KMA-3/4 AIR RELAY*



Note: *View from the bottom of the valve.*



Note: *Close-up view of the valve.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-017

Equipment ID No. *PSV-2684* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *MAIN STEAM RELIEF*

Location: Bldg. *RAB* Floor El. *404* Room, Area *170*

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☒
   This item is not part of the 50% requiring verification.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   This item is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   This item is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   This item is not anchored directly to concrete since it is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-017

Equipment ID No. *PSV-2684* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *MAIN STEAM RELIEF*

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☒
   This item is not part of the 50% requiring verification.

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

Interaction Effects

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

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-017

Equipment ID No. *PSV-2684* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *MAIN STEAM RELIEF*

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☐

    No other conditions that could adversely affect the safety functions of the equipment were discovered.

Comments (Additional pages may be added as necessary)

This main steam relief valve was found at the very peak of the room. The area was hot and special precaution was taken when escalating the ladder to this item. The valve was located to the left of the ladder (when climbing). It was the last valve opposite to the entrance of the room. Valve was found in normal operating conditions.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/12*

Eric Dilbone *10/9/12*

Sheet 4 of 5

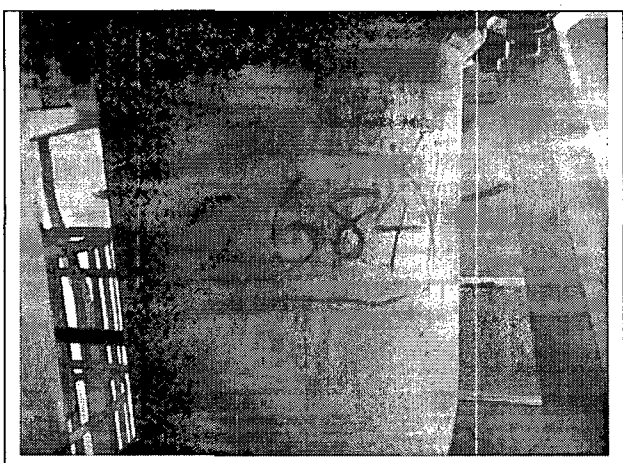
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-017**

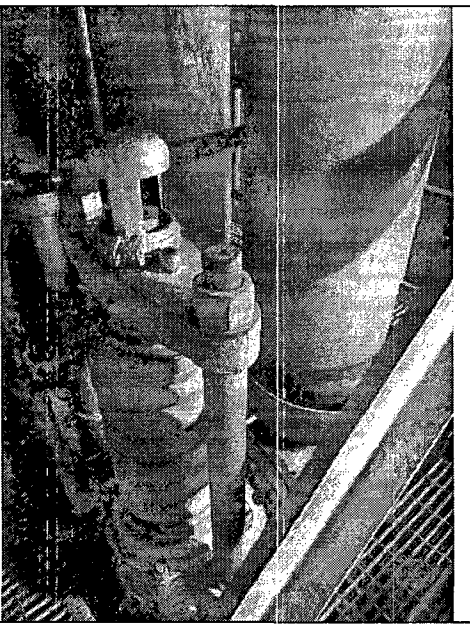
Equipment ID No. *PSV-2684* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *MAIN STEAM RELIEF*

Photographs



Note: *General image showing the equipment tag, PSV-2684. The first few letters in the tag are not shown in this image, but they were clearly labeled around this section of the valve.*



Note: *General image of PSV-2684.*

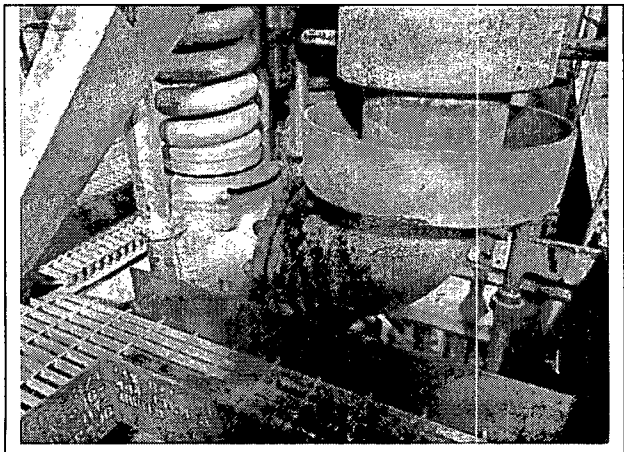
Sheet 5 of 5

Status: Y☒ N☐ U☐

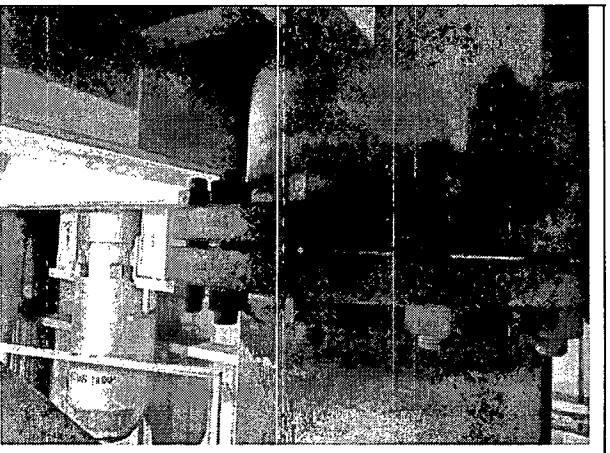
Seismic Walkdown Checklist (SWC) **SWEL1-017**

Equipment ID No. *PSV-2684* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *MAIN STEAM RELIEF*



Note: *General image showing the bottom of the valve. Mild surface oxidation was observed, but was not considered to be a concern.*



Note: *This image shows a section of the bolt connection. Mild surface oxidation was observed.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-018

Equipment ID No. *CV-1432* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *'B' DH CLR E35B BYP*

Location: Bldg. *RAB* Floor El. *317* Room, Area *11*

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☒
   This item is an inline valve, but it is anchored to its corresponding pipe instead of welded. This item is also not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Anchorage appears to be free from the conditions stated above.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No signs of any type of corrosion have been found on the component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Component is anchored to its inline steel pipe.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-018

Equipment ID No. *CV-1432* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *'B' DH CLR E35B BYP*

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☒
   Item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage found to support the component was determined to be free from adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   A small pipe runs across below the item, but since the equipment item appears to be well anchored, there is no likelihood for this item to damage this pipe.

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☐
   None of the items described above are found in the vicinity of the equipment.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-018**

Equipment ID No. *CV-1432* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *'B' DH CLR E35B BYP*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

The equipment, in general, has very good anchorage. It is found to be properly installed to the steel frames that serve to support the system. All attached lines and pipes are also properly anchored to the component, and their configurations are properly placed so as to promote flexibility.

Evaluated by: *Daniel Andoh* Date: *10/04/2012*

Michael E. Perez *10/04/2012*

Sheet 4 of 5

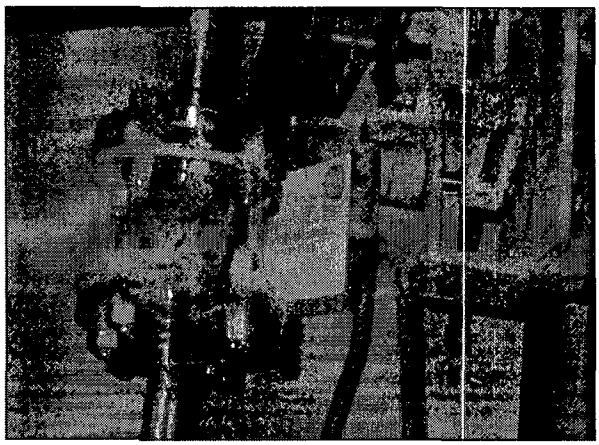
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-018**

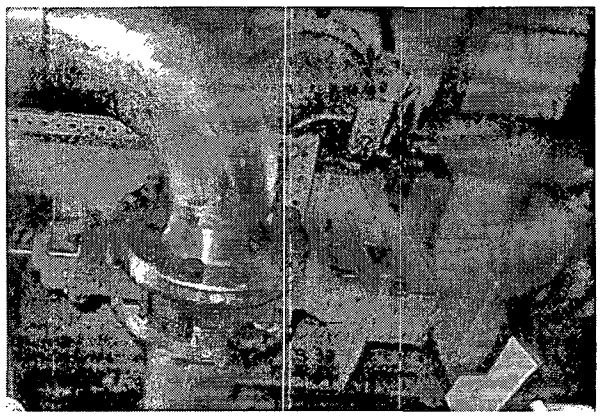
Equipment ID No. *CV-1432* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *'B' DH CLR E35B BYP*

Photographs



Note: *Tag ID number for Item CV-1432.*



Note: *All anchorage appears to be complete and in adequate conditions.*

Sheet 5 of 5

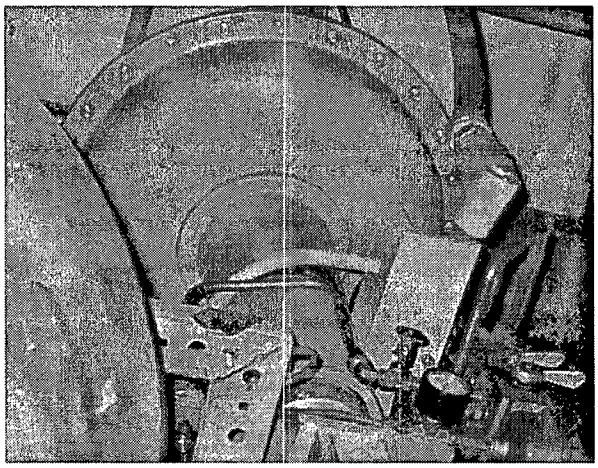
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-018

Equipment ID No. *CV-1432* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *'B' DH CLR E35B BYP*

Note: *Since the component appears to be securely anchored to the adjacent steel frames, the small pipe found next to the item is free from impact.*



Note: *All attached lines appear to have adequate flexibility.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-019

Equipment ID No. *CV-1052* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB*

Location: Bldg. *RAB* Floor El. *317* Room, Area *13*

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☒
   This equipment is an in-line valve, but it is welded to its corresponding pipe. Item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component..

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-019

Equipment ID No. *CV-1052* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage supporting the system was found to be free from adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No items in vicinity that can impact soft targets.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Other neighboring components are properly secured, thus it is not likely that they would collapse on this equipment item during a seismic event.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-019

Equipment ID No. *CV-1052* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB*

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☐

    No other seismic conditions were found to affect the equipment's safety functions.

Comments (Additional pages may be added as necessary)

The equipment is found to be properly welded to the steel pipe that runs in-line with the item. All attached lines are also properly anchored to the component, promoting flexibility. The item is also anchored in an area where it is unlikely that seismic interactions with other neighboring equipment will occur.

Evaluated by: *Daniel Andoh* Date: *10/4/2012*

Michael E. Perez *10/4/2012*

Sheet 4 of 5

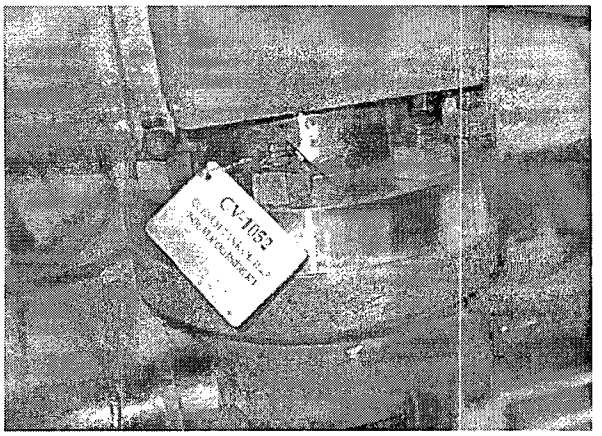
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-019**

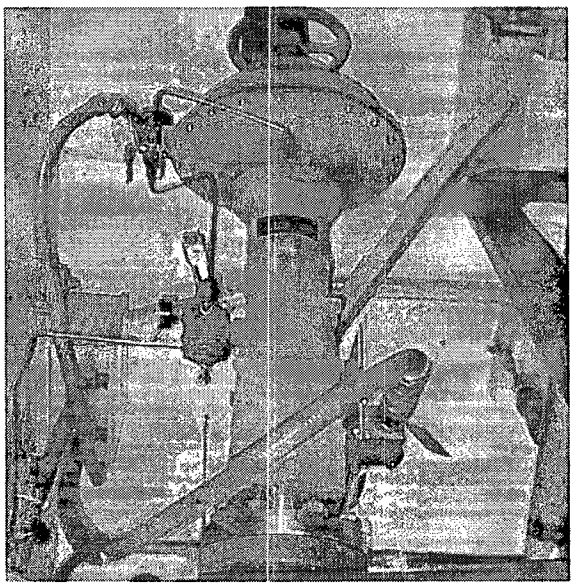
Equipment ID No. *CV-1052* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB*

Photographs



Note: *Tag ID number for Item CV-1052. Note that this item is anchored to a steel pipe and it also has been found to be adequately installed.*



Note: *General view of Item CV-1052.*

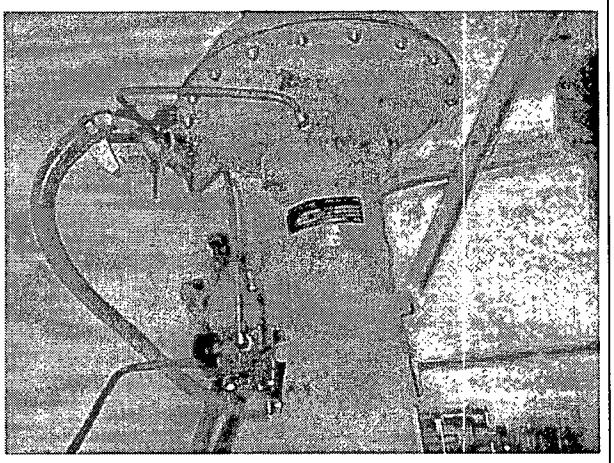
Sheet 5 of 5

Status: Y☒ N☐ U☐

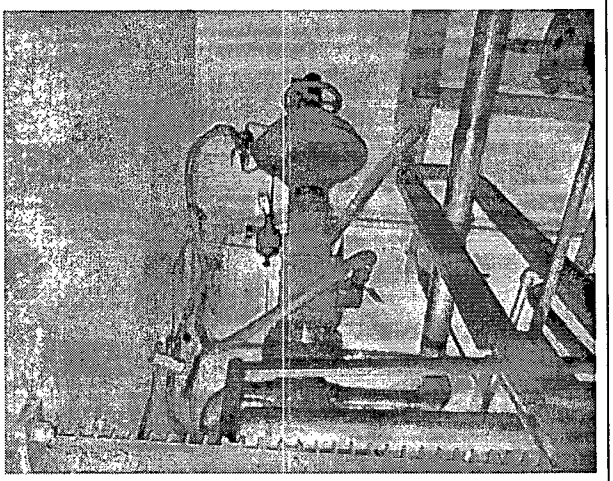
Seismic Walkdown Checklist (SWC) SWEL1-019

Equipment ID No. *CV-1052* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *QUENCH TANK OUTLET ISOL. VALVE OUTSIDE RB*



Note: *Note that the attached lines have adequate flexibility.*



Note: *Note that because of the general location of the equipment item, it is unlikely for seismic interaction for other neighboring equipment to occur.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-020

Equipment ID No. *CV-2214* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☒
   This equipment item is an in-line valve. Although it contains bolts, it is not anchored to another equipment item. This item is also not part of the 50%.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-020

Equipment ID No. *CV-2214* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage was found to be free from potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   No soft targets in the area.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The overhead system consisting of a steel plate was bolted well on steel columns, giving adequate protection to the item.

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    The inspection found no adverse seismic interaction conditions.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-020

Equipment ID No. *CV-2214* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

There was some minor corrosion on the anchored bolts, but was ruled not to be an issue. Also, it has been verified that the corrective action that was done to modify the equipment item, according to the SEWS, was consistent with the inspection done on this item. Overall, Item CV-2214 was found to be in adequate conditions.

Evaluated by: *Genaro Barragan Jr.* Date: *10/3/2012*

Michael E. Perez *10/3/2012*

Sheet 4 of 5

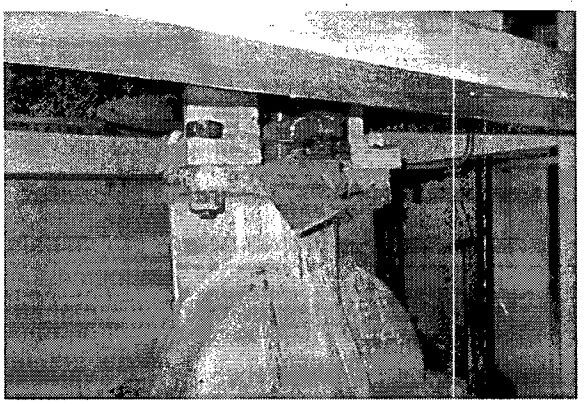
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-020

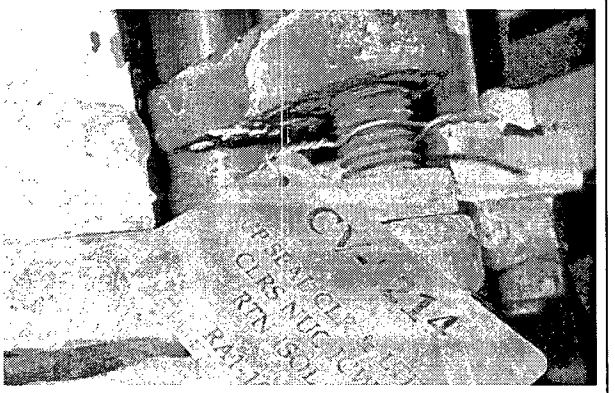
Equipment ID No. *CV-2214* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL*

Photographs



Note: *Tag ID number of Item CV-2214.*



Note: *Some minor corrosion found on anchorage bolt, but was ruled to only be superficial and nothing severe.*

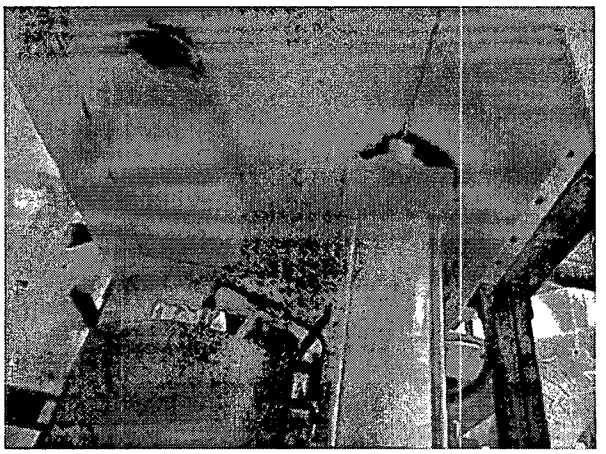
Sheet 5 of 5

Status: Y☒ N☐ U☐

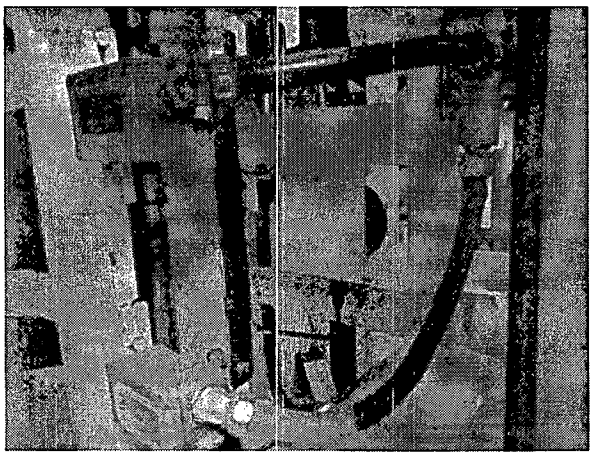
Seismic Walkdown Checklist (SWC) SWEL1-020

Equipment ID No. *CV-2214* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW RTN ISOL*



Note: *Based on the inspection of the clearance between Item CV-2214 and the steel plate above, the corrective action stated in the SEWS has been verified and no adverse seismic interaction effects have been found.*



Note: *Attached lines are found to have adequate flexibility.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. *CV-2233* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☒
   This equipment item is an in-line valve. Although it contains bolts, it is not anchored to another equipment item. This item is also not part of the 50%.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. *CV-2233* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage was found to be free from potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   No soft targets in the area.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The overhead system consisting of a steel plate was bolted well on steel columns, giving adequate protection of the item.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. *CV-2233* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

There was some mild surface oxidation on a few bolts, but was ruled to not be an issue. Other than this issue, Item CV-2233 has been found in be in adequate conditions. All bolts in the system were properly secured and subcomponents were anchored in their proper locations.

Evaluated by: *Genaro Barragan Jr.* Date: *10/3/2012*

Michael E. Perez *10/3/2012*

Sheet 4 of 5

Status: Y☒ N☐ U☐

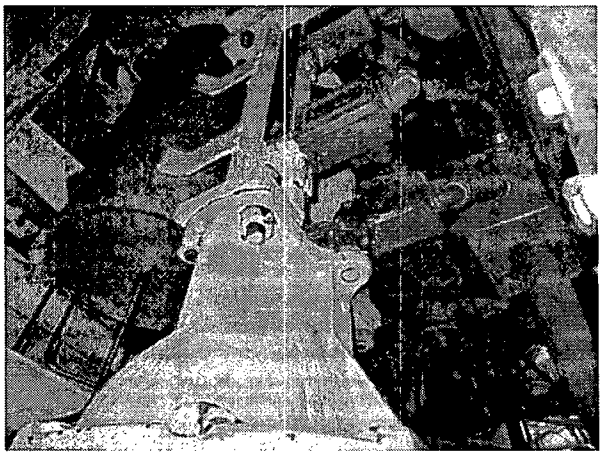
Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. *CV-2233* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL*

Photographs

Note: *Tag ID number of Item CV-2233. Note also the minor corrosion due to oxidation on the anchor. This has been ruled not to be severe.*



Note: *All bolts anchored on the system appear to be properly secure and free from seismic hazards. Note also the attached lines above the item have adequate flexibility to avoid damage.*

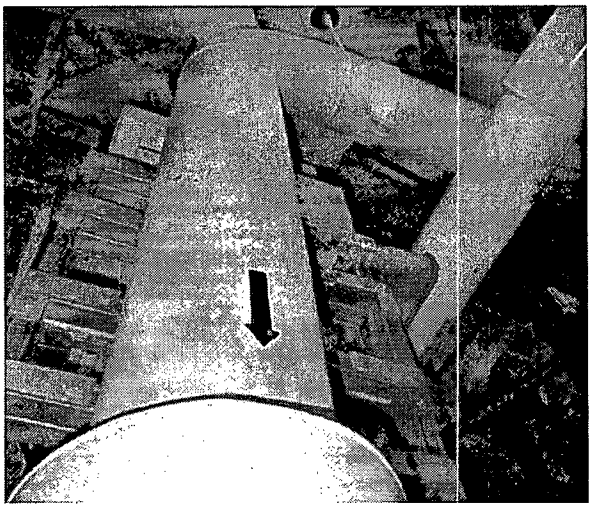
Sheet 5 of 5

Status: Y☒ N☐ U☐

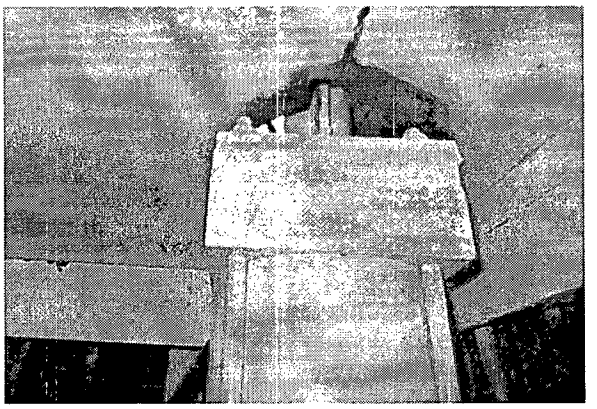
Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. *CV-2233* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP SEAL CLR & LTDN CLRS NUC ICW SUPPLY ISOL*



Note: *The steel casing with a steel plate above serves to protect the integrity of the Item CV-2233. This ensures to avoid any collapse or other seismic hazard from overhead equipment.*



Note: *Opening above has been bored with a method that appears to be grinding to ensure that there is sufficient clearance from the valve operator to the steel plate.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. *CV-2234* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☒
   This equipment item is an inline valve. Although it contains bolts, it is not anchored to another equipment item. This item is also not part of the 50%.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. *CV-2234* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage was found to be free from potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   No soft targets in the area.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The overhead system consisting of a steel plate was bolted well on steel columns, giving adequate protection of the item.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. *CV-2234* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

There was some minor oxidation on its anchored bolts, but was ruled to not be an issue. Other than this issue, Item CV-2234 has been found in be in adequate conditions. All anchoring bolts in the system were properly secured and subcomponents were anchored in their proper locations.

Evaluated by: *Genaro Barragan Jr.* Date: *10/3/2012*

Michael E. Perez *10/3/2012*

Sheet 4 of 5

Status: Y☒ N☐ U☐

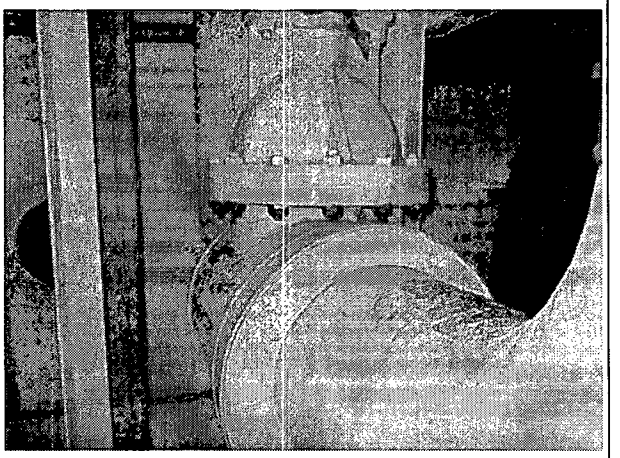
Seismic Walkdown Checklist (SWC) **SWEL1-022**

Equipment ID No. *CV-2234* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL*

Photographs

Note: *Tag ID number of Item CV-2234. Note also the minor corrosion on the anchor. This has been ruled not to be severe.*



Note: *All other anchorage within the equipment item is found to be in adequate conditions.*

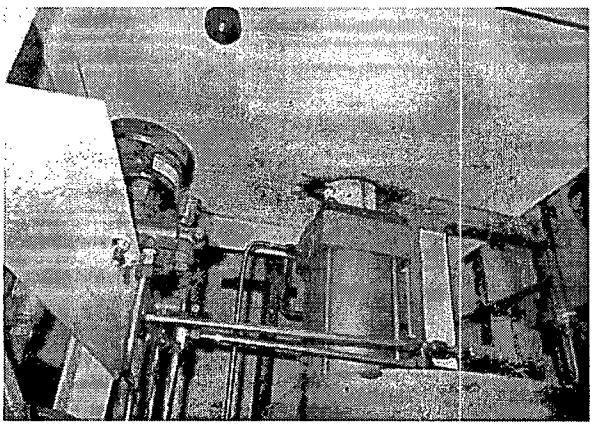
Sheet 5 of 5

Status: Y☒ N☐ U☐

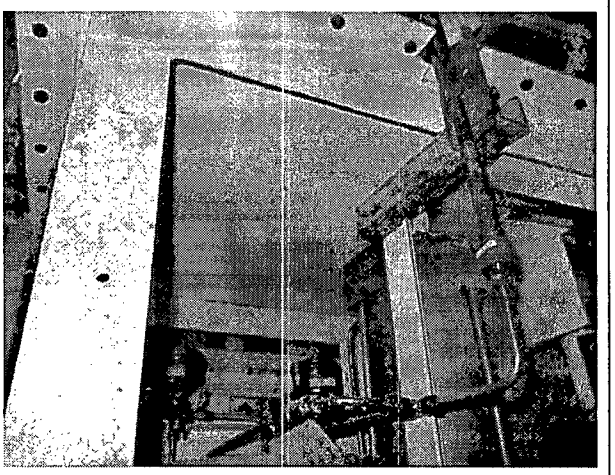
Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. *CV-2234* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *RCP MTR AIR & LO CLRS NON-NUC ICW SUPP ISOL*



Note: *This is the steel plate above the equipment item that serves to protect the entire system from outside hazards. Note the adequate tolerance to limit seismic interaction effects.*



Note: *Attached lines in Item CV-2234 have adequate flexibility. Note the bolts around the steel plate that are anchored properly to secure the equipment item.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. *CV-1433* Equip. Class[1] *7 - Pneumatic-Operated Valves*

Equipment Description *DH CLR E-35A BYPASS*

Location: Bldg. *RAB* Floor El. *317* Room, Area *14*

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☒
   This equipment item is an inline valve. Although it contains bolts, it is not anchored to another equipment item. This item is also not part of the 50%.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   All hardware is in place and in good condition
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   Corrosion beyond mild surface oxidation was not observed.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. *CV-1433* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *DH CLR E-35A BYPASS*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage was found to be free from potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   No soft targets in the area.

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. *CV-1433* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *DH CLR E-35A BYPASS*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

Evaluated by: *Michael E. Perez* Date: *10/3/2012*

Sean Smolarek *10/3/2012*

Sheet 4 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-023**

Equipment ID No. *CV-1433* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *DH CLR E-35A BYPASS*

Photographs

Note: *Observe Component ID*

Note: *General Overview*

Sheet 5 of 5

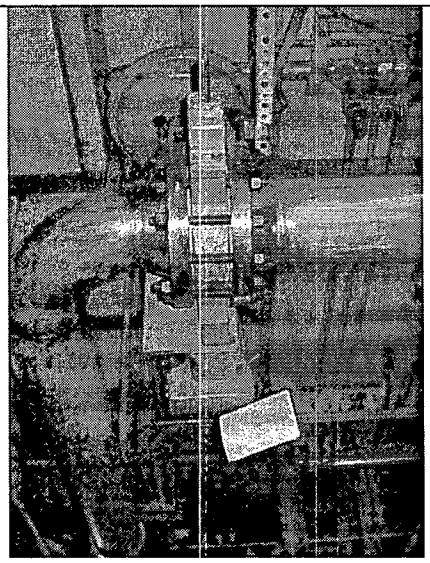
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-023**

Equipment ID No. *CV-1433* Equip. Class *7 - Pneumatic-Operated Valves*

Equipment Description *DH CLR E-35A BYPASS*

Note: *General Overview*



Note: *General Overview*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-024

Equipment ID No. *CV-2620* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A TO SG-B ISOL*

Location: Bldg. *RAB* Floor El. *335* Room, Area *46*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   This is an in-line component, so this is not applicable.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   This is an in-line component, so this is not applicable.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   This is an in-line component, so this is not applicable.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-024

Equipment ID No. *CV-2620* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A TO SG-B ISOL*

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☒
   Item is not part of the 50%.

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Adjacent piping is sufficient distance away to prevent impact during a seismic event.

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☐
   No block walls, lighting is adequate.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Flexible conduit is used for all conduit attached to this valve.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-024

Equipment ID No. *CV-2620* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A TO SG-B ISOL*

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☐

    No other adverse seismic conditions have been found to affect the equipment's integrity and safety functions.

Comments (Additional pages may be added as necessary)

Valve is in good overall condition. Observations found no adverse seismic conditions

Evaluated by: *Michael E. Perez* Date: *10/10/2012*

Sean Smolarek *10/10/2012*

Sheet 4 of 5

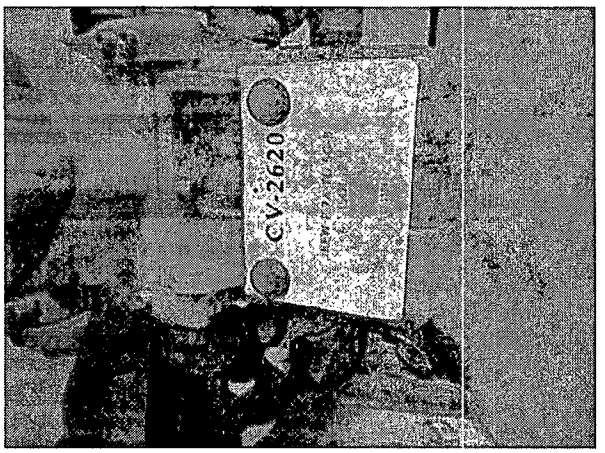
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-024**

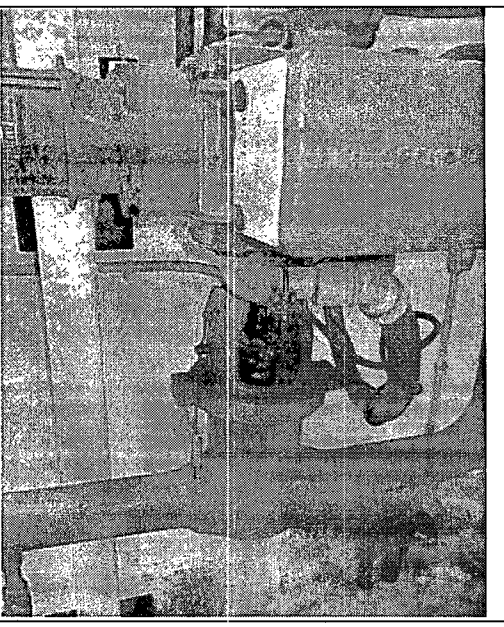
Equipment ID No. *CV-2620* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A TO SG-B ISOL*

Photographs



Note: *Equipment ID tag for Item CV-2620.*



Note: *General overview of item. Note the flexible conduit attached appears to have adequate flexibility.*

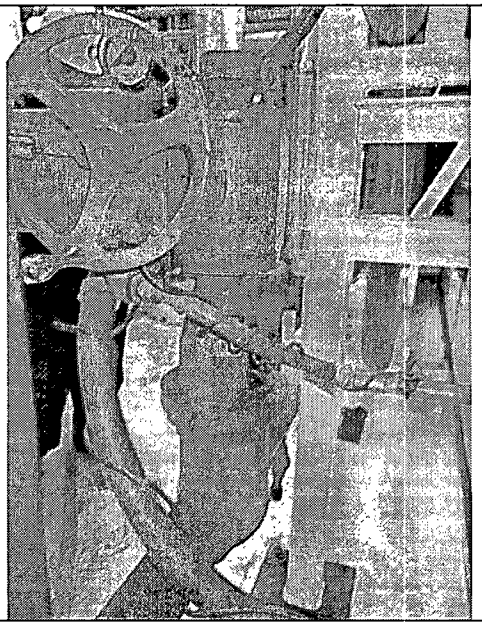
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-024

Equipment ID No. *CV-2620* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A TO SG-B ISOL*



Note: *General overview of item. Note the flexible conduit attached appears to have adequate flexibility.*

Note:

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. *CV-2800* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7B SUCTION FROM CST*

Location: Bldg. *RAB* Floor El. *335* Room, Area *38*

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☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. *CV-2800* Equip. Class[2] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7B SUCTION FROM CST*

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☒
   This item is not part of the 50%.

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

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   No adverse conditions observed due to overhead equipment.

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. *CV-2800* Equip. Class[3] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7B SUCTION FROM CST*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Michael E. Perez* Date: *10/8/2012*

Daniel Parker *10/8/2012*

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

Sheet 4 of 5

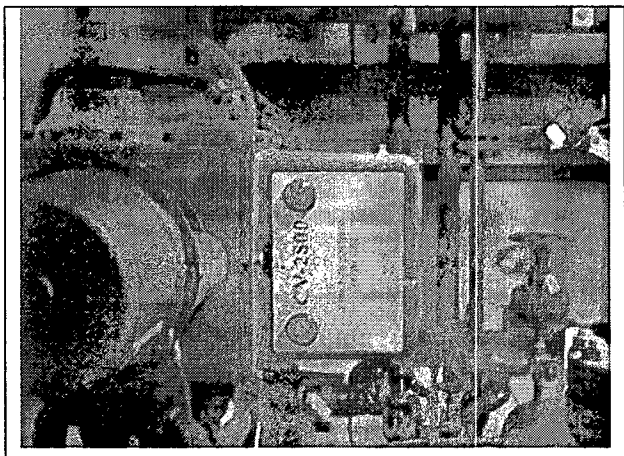
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-025**

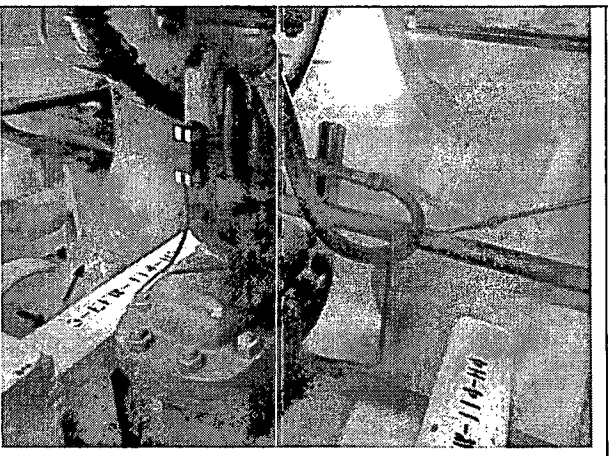
Equipment ID No. *CV-2800* Equip. Class[4] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7B SUCTION FROM CST*

Photographs



Note: *CV-2800 Equipment Identification Tag*



Note: *Connection bolts between motor control and valve body.*

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

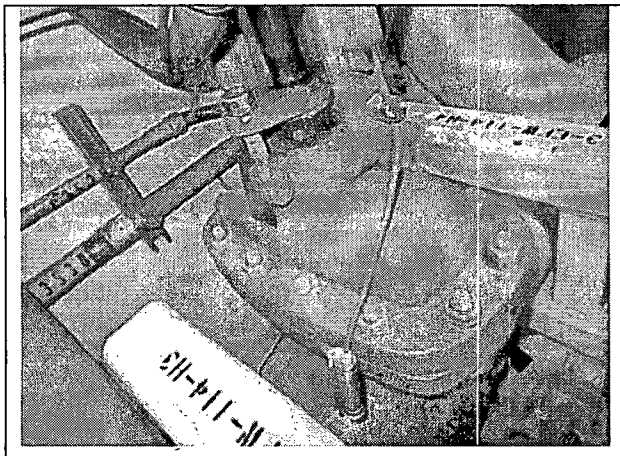
Sheet 5 of 5

Status: Y☒ N☐ U☐

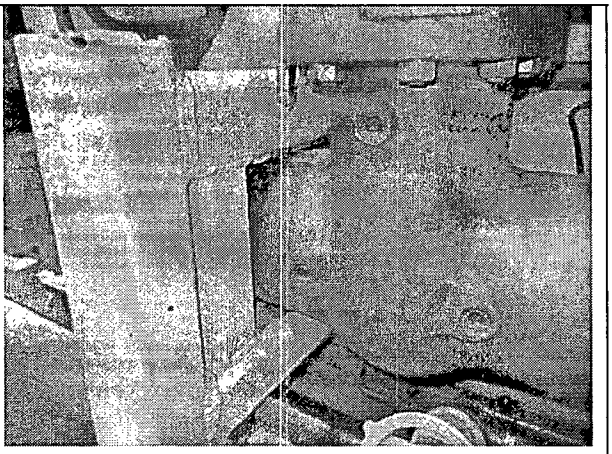
Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. *CV-2800* Equip. Class[5] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7B SUCTION FROM CST*



Note: *Connection bolts between motor control and valve body.*



Note: *Valve body and structural support bracket.*

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 026

Equipment ID No. *CV-2646* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-7B TO SG-A CONTROL VALVE*

Location: Bldg. *RAB* Floor El. *335* Room, Area *35*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   In-line valve, so this is not applicable.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   In-line valve, so this is not applicable.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   In-line valve. Weld was inspected and had no visible cracks.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-026

Equipment ID No. *CV-2646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-7B TO SG-A 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☒
   Item is not part of the 50%.

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

Interaction Effects

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

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-026

Equipment ID No. *CV-2646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-7B TO SG-A 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☐

    No other conditions that could affect the safety functions of the equipment were discovered.

Comments (Additional pages may be added as necessary)

Valve, CV-2646, appears to be in good condition. There was no corrosion or missing hardware identified with this item. The tag number was CLEARLY identified by the seismic walkdown engineers; however, it is not clear in the images below.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/2012*

Eric Dilbone *10/9/2012*

Sheet 4 of 5

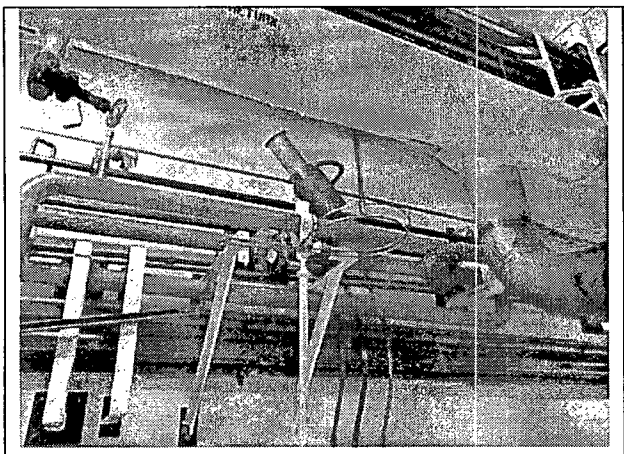
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-026

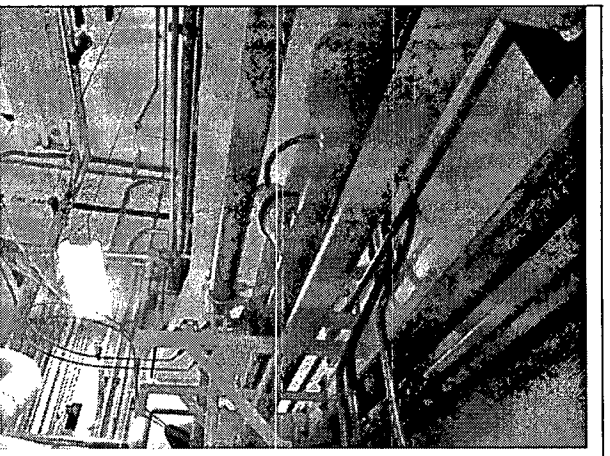
Equipment ID No. *CV-2646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-7B TO SG-A CONTROL VALVE*

Photographs



Note: *General image shows valve, CV-2646.*



Note: *Image was taken from the bottom of the valve, towards the ceiling. Valve body appears in orange.*

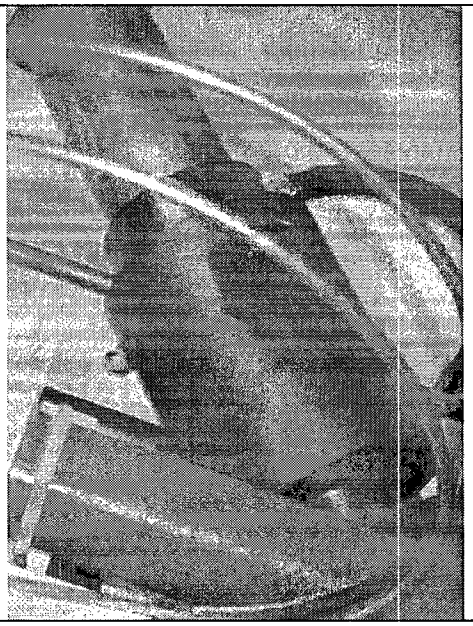
Sheet 5 of 5

Status: Y☒ N☐ U☐

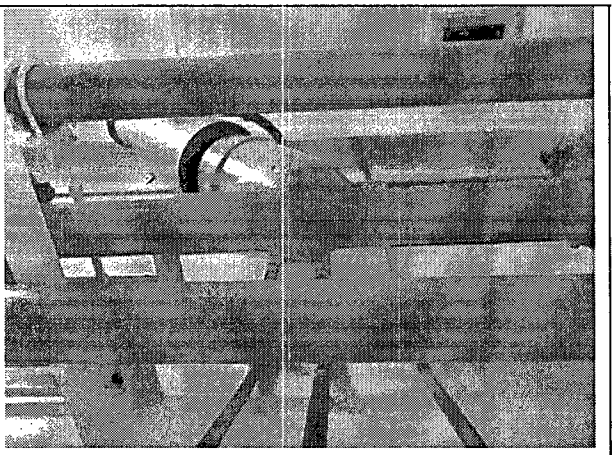
Seismic Walkdown Checklist (SWC) **SWEL1-026**

Equipment ID No. *CV-2646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-7B TO SG-A CONTROL VALVE*



Note: *This image shows the equipment tag. The image does not clearly show the ID number, but the walk-down engineers did clearly identify the item and were able to read the ID number.*



Note: *General image shows the bottom of the valve.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-027

Equipment ID No. *CV-1407* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *BWST T-3 OUTLET*

Location: Bldg. *RAB* Floor El. *354* Room, Area *63*

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☒
   This item is an inline valve, which contains no anchorage. It is also not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   The item is free from the conditions stated above.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   The anchorage within the item is free from any signs of corrosion.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   There is no anchorage involving concrete. This item does no apply.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-027

Equipment ID No. *CV-1407* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *BWST T-3 OUTLET*

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☒
   Item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Anchorage in the system has been ruled to be free from potentially adverse seismic conditions.

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   None of the above are likely to collapse onto the equipment.

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Flexible conduit is used for all conduit in the component.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-027**

Equipment ID No. *CV-1407* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *BWST T-3 OUTLET*

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☐

    No other adverse seismic conditions have been found to affect the equipment's integrity and safety functions.

Comments (Additional pages may be added as necessary)

Located down a 4 ft ladder and then to the right. Looks to be in good general condition. No adverse seismic conditions were observed.

Evaluated by: *Michael E. Perez* Date: *10/10/2012*

Sean Smolarek *10/10/2012*

Sheet 4 of 5

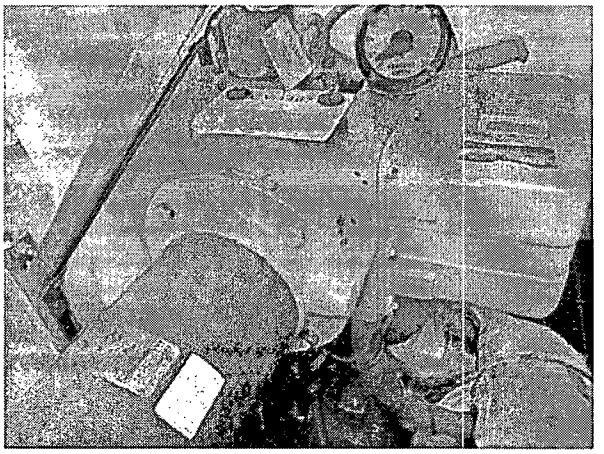
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-027**

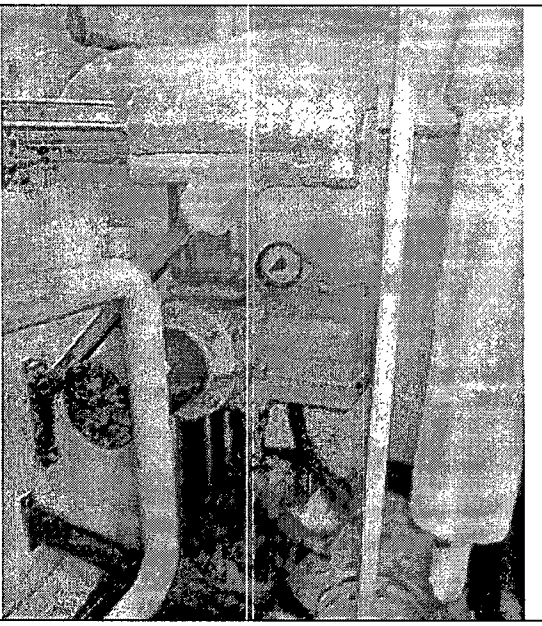
Equipment ID No. *CV-1407* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *BWST T-3 OUTLET*

Photographs



Note: *Equipment tag ID for Item CV-1407.*



Note: *General Overview*

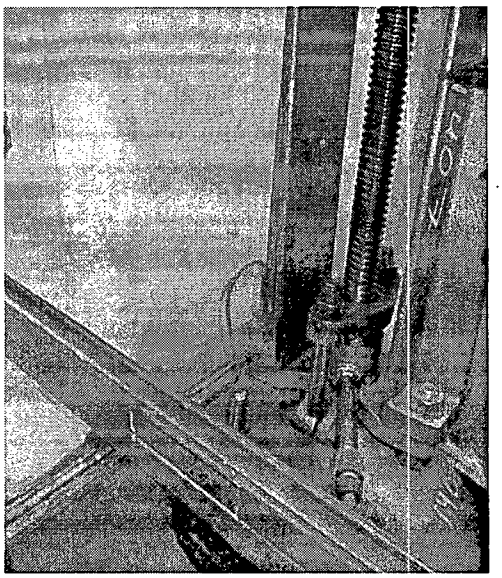
Sheet 5 of 5

Status: Y☒ N☐ U☐

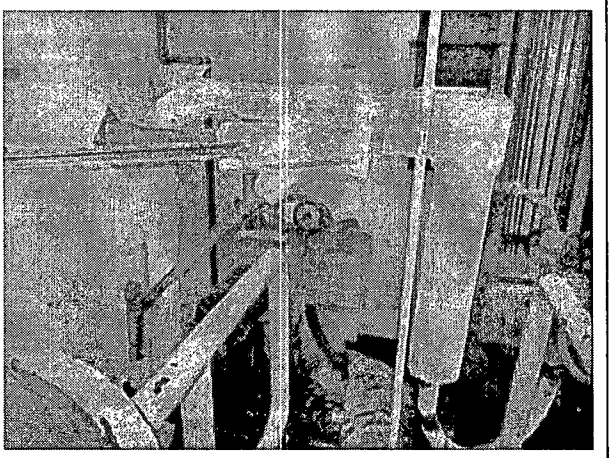
Seismic Walkdown Checklist (SWC) **SWEL1-027**

Equipment ID No. *CV-1407* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *BWST T-3 OUTLET*



Note: *Anchorage within the system appears to be free from bent, broken, or missing hardware. It is also free from any signs of corrosion.*



Note: *General Overview*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-028

Equipment ID No. *CV-1300* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *SEAL RTN CLR ISOL*

Location: Bldg. *RAB* Floor El. *372* Room, Area *94*

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☐
   Verify anchorage is in accordance with SEWS calculation 94-SQ-1001-08 page 99

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No signs of corrosion were observed

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   No cracks in concrete were observed. There were cracks in the paint observed

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-028

Equipment ID No. *CV-1300* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *SEAL RTN CLR ISOL*

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 is in accordance with calculation listed in question 1

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   No other adverse seismic anchorage conditions were observed

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets will be impacted

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☐
   S-hooks were closed for light fixtures. Seismic block walls (4-B-165, 4-B-166, 4-B-176) were observed in the area.

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    No other interaction effects were observed

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 028

Equipment ID No. *CV-1300* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *SEAL RTN CLR ISOL*

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☐
    No other adverse seismic conditions were observed

Comments (Additional pages may be added as necessary)

Evaluated by: *Michael Perez* Date: *10/10/2012*

Sean Smolarek *10/10/2012*

Sheet 4 of 5

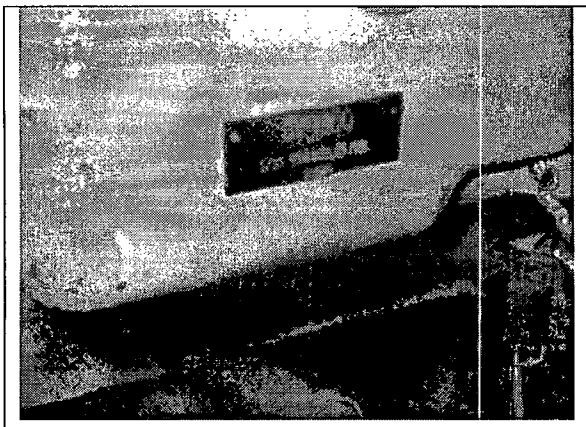
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 028**

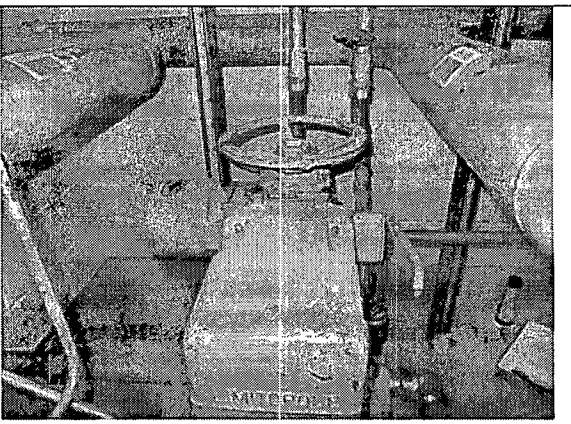
Equipment ID No. *CV-1300* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *SEAL RTN CLR ISOL*

Photographs



Note: *Observe Component Tag*



Note: *Overview of Component – Observe Flexible Conduit*

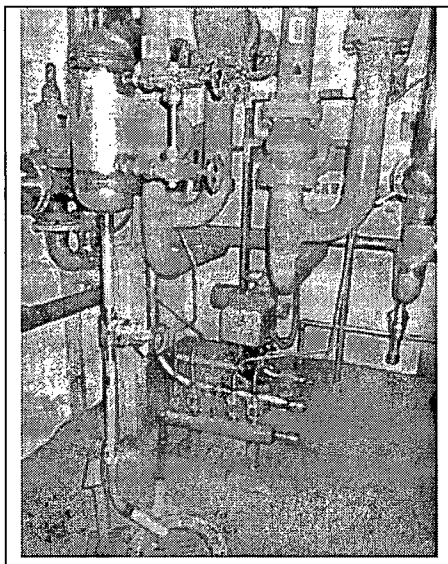
Sheet 5 of 5

Status: Y☒ N☐ U☐

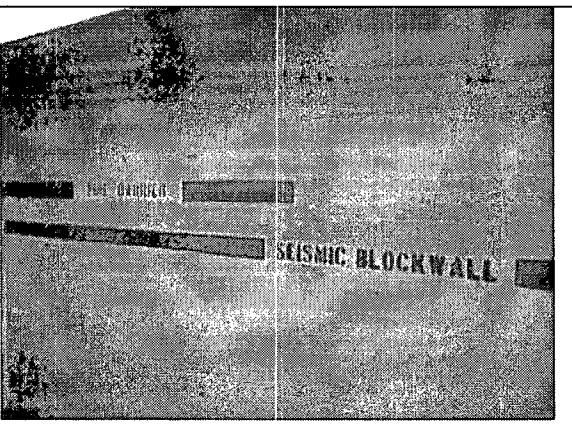
Seismic Walkdown Checklist (SWC) **SWEL1- 028**

Equipment ID No. *CV-1300* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *SEAL RTN CLR ISOL*



Note: *Overview of Component*



Note: *Observe Seismic Block Wall in Area*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 029

Equipment ID No. *CV-1220* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32D DISCH*

Location: Bldg. *RAB* Floor El. *360* Room, Area *79*

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☒
   This is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 029

Equipment ID No. *CV-1220* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32D DISCH*

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☒
   This item was not part of the 50%.

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

Interaction Effects

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

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

9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   There are attached lines and they appear to have adequate flexibility.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 029**

Equipment ID No. *CV-1220* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32D DISCH*

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☐

    No other seismic conditions that could affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Valve, CV-1220, was found in appropriate conditions. There was no corrosion or missing hardware.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/2012*

Eric Dilbone *10/9/2012*

Sheet 4 of 5

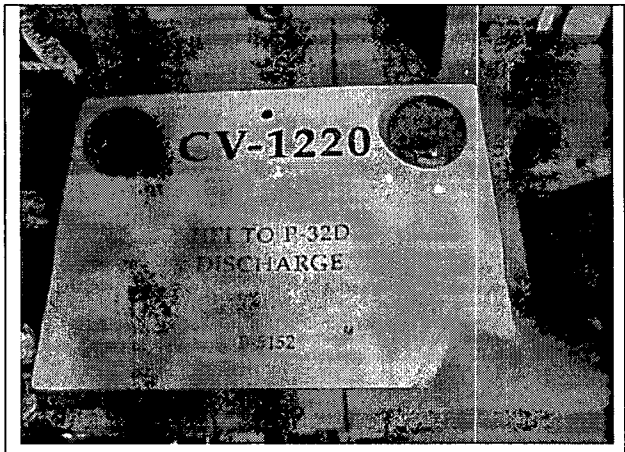
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 029**

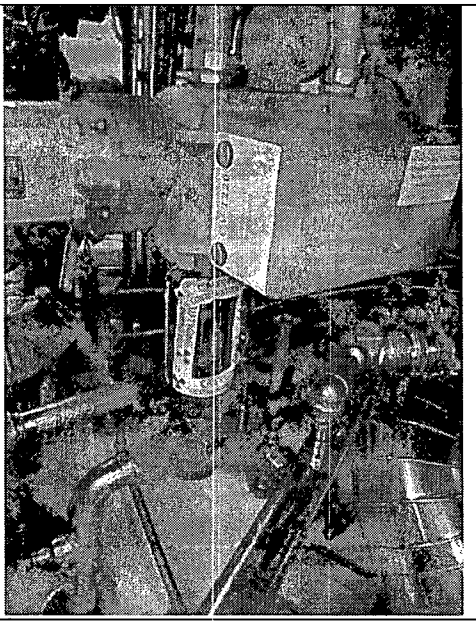
Equipment ID No. *CV-1220* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32D DISCH*

Photographs



Note: *General image showing the equipment tag of valve (CV-1220).*



Note: *General image showing the entire valve and operator set-up.*

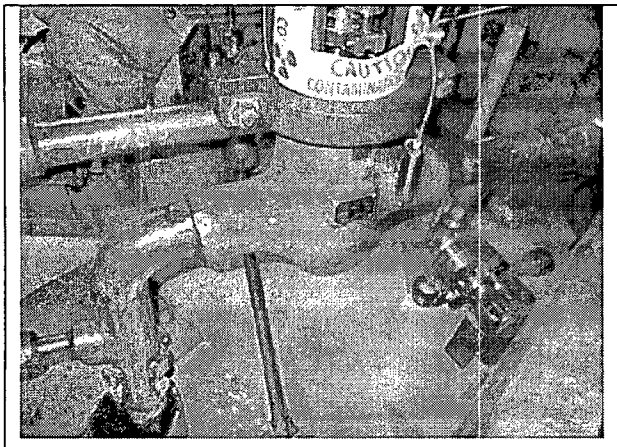
Sheet 5 of 5

Status: Y☒ N☐ U☐

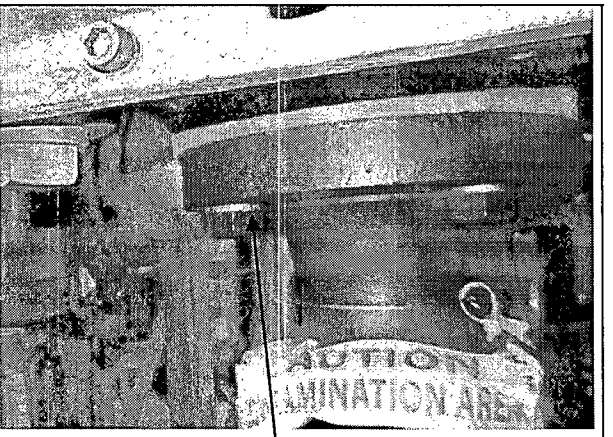
Seismic Walkdown Checklist (SWC) SWEL1- 029

Equipment ID No. *CV-1220* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32D DISCH*



Note: *General image of valve (CV-1220).*



Crack in washer

Note: *The washer on the bolt to the left of the image has a small crack. This crack was determined to be insignificant.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. *CV-1276* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *'A' DH LOOP DISCHARGE TO MU PUMP P-36A SUCTION*

Location: Bldg. *RAB* Floor El. *335* Room, Area *56*

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 Pump

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. *CV-1276* Equip. Class[2] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *'A' DH LOOP DISCHARGE TO MU PUMP P-36A SUCTION*

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☒
   Not applicable since this is an in-line component.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   There was nothing observed that would indicate that this component is seismically deficient or that the connections are insufficient.

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   All overhead piping and electrical conduit is properly secured to prevent any credible of significant spatial interaction during a seismic event.

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. *CV-1276* Equip. Class[3] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *'A' DH LOOP DISCHARGE TO MU PUMP P-36A SUCTION*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Eric Dilbone* Date: *10/10/2012*

Daniel Parker *10/10/2012*

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

Sheet 4 of 5

Status: Y☒ N☐ U☐

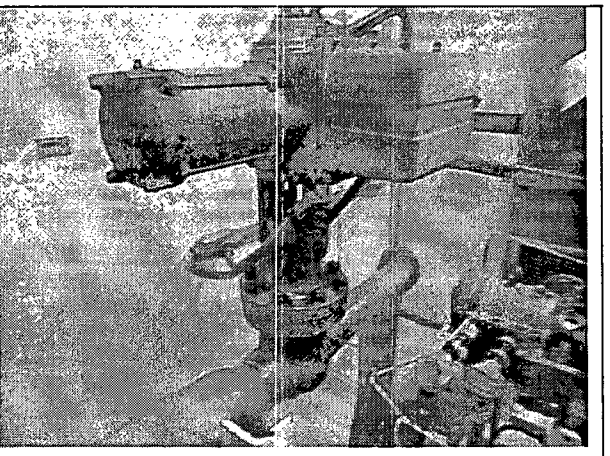
Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. *CV-1276* Equip. Class[4] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *'A' DH LOOP DISCHARGE TO MU PUMP P-36A SUCTION*

Photographs

Note: *Equipment identification tag.*



Note: *CV-1276 with control motor.*

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

Sheet 5 of 5

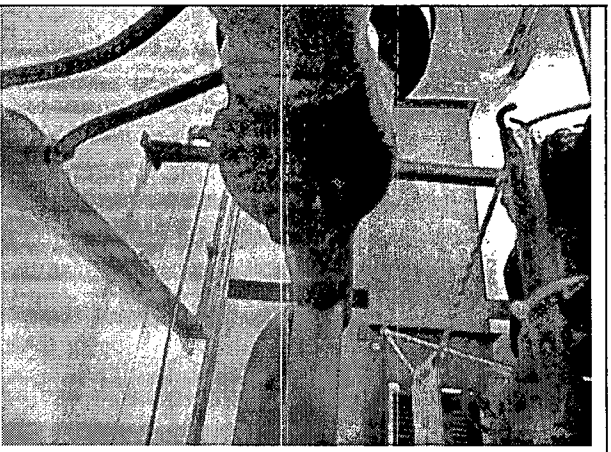
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. *CV-1276* Equip. Class[5] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *'A' DH LOOP DISCHARGE TO MU PUMP P-36A SUCTION*

Note: *CV-1276 body and in/out lines.*



Note: *Bottom of CV-1276.*

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

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. *CV-1050* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DH SUCT ISOL*

Location: Bldg. *RB* Floor El. *336* Room, Area *310*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. *CV-1050* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DH SUCT ISOL*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. *CV-1050* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DH SUCT ISOL*

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: _____

_____ _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. *CV-1050* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DH SUCT ISOL*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-031**

Equipment ID No. *CV-1050* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DH SUCT ISOL*

Note:	**Note:**

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-032

Equipment ID No. *CV-1410* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT SUCTION FROM RCS ISOL*

Location: Bldg. *RB* Floor El. *336* Room, Area *315*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-032

Equipment ID No. *CV-1410* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT SUCTION FROM RCS ISOL*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-032

Equipment ID No. *CV-1410* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT SUCTION FROM RCS ISOL*

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: _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-032**

Equipment ID No. *CV-1410* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT SUCTION FROM RCS ISOL*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-032**

Equipment ID No. *CV-1410* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT SUCTION FROM RCS ISOL*

Note:	**Note:**

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-033

Equipment ID No. *CV-1437* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT P-34B SUCTION FROM BWST*

Location: Bldg. *RAB* Floor El. *317* Room, Area *11*

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☒
   This is an inline valve, but it is anchored to its corresponding pipe. This item is also not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Anchorage appears to be free from the conditions stated above.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   There appears to be some minor surface oxidation on the top four bolts of the item. But it has been ruled not to be severe.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Component is anchored to the steel surface of decay heat pump. No defects on this anchorage have been found.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-033

Equipment ID No. *CV-1437* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT P-34B SUCTION FROM BWST*

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☒
   Item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage supporting the system was found to be free from adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Tubing observed in the area. No impact.

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☐
   Other overhead and neighboring equipment are properly secured. There are no adverse seismic conditions due to overhead equipment, distribution systems, ceiling tiles and lighting and masonry block walls.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-033

Equipment ID No. *CV-1437* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT P-34B SUCTION FROM BWST*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

There is some minor oxidation found on four of the equipment's anchors, but was judged not to be an issue for the equipment's anchorage performance. Overall, the equipment appears to have very good anchorage. It is found to be properly installed to the decay heat pump that runs below the equipment item. All attached lines are also properly anchored to the component, promoting flexibility.

Evaluated by: *Daniel Andoh* Date: *10/4/2012*

Michael E. Perez *10/4/2012*

Sheet 4 of 5

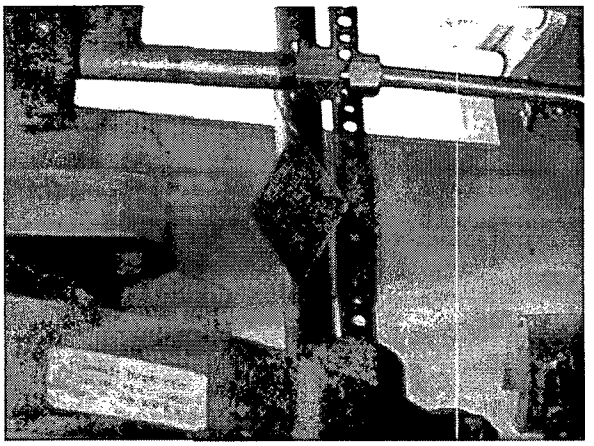
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-033

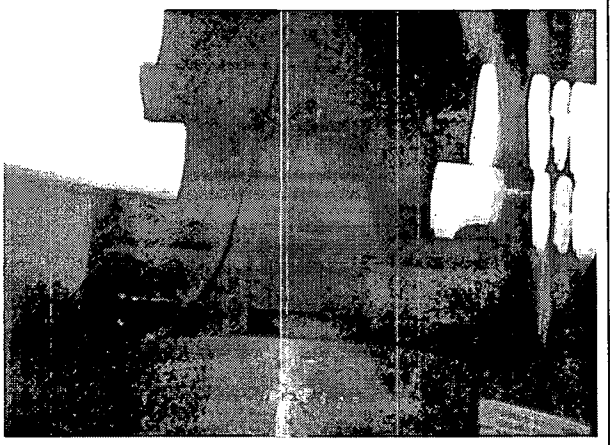
Equipment ID No. *CV-1437* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT P-34B SUCTION FROM BWST*

Photographs



Note: *Tag ID number for Item CV-1437.*



Note: *The four upper bolts appear to have some mild surface oxidation, but it also appears to not be an issue for its anchorage performance.*

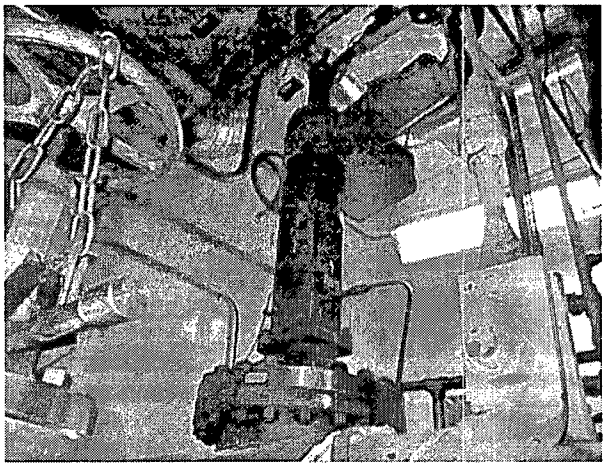
Sheet 5 of 5

Status: Y☒ N☐ U☐

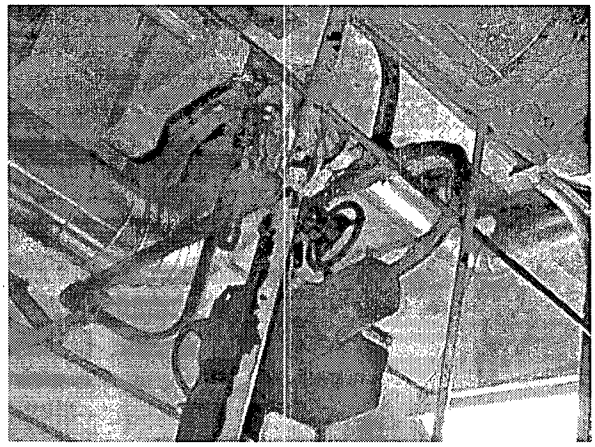
Seismic Walkdown Checklist (SWC) SWEL1-033

Equipment ID No. *CV-1437* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *DECAY HEAT P-34B SUCTION FROM BWST*



Note: *General view of Item CV-1437. Note that the attached pipe appears to have adequate flexibility.*



Note: *Overhead equipment is properly secured.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-034

Equipment ID No. *CV-1227* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32B DISCHARGE*

Location: Bldg. *RAB* Floor El. *335* Room, Area *79*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-034

Equipment ID No. *CV-1227* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32B DISCHARGE*

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☒
   This item is not part of the 50%.

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

Interaction Effects

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

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-034**

Equipment ID No. *CV-1227* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32B DISCHARGE*

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☐

    No other seismic conditions that could adversely affect the safety functions of the equipment were discovered.

Comments (Additional pages may be added as necessary)

Valve (CV-1227) was located in an area that was spacious. There was no corrosion found on the valve, nor was there any missing hardware. Component was found in appropriate conditions.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/2012*

Eric Dilbone *10/9/2012*

Sheet 4 of 5

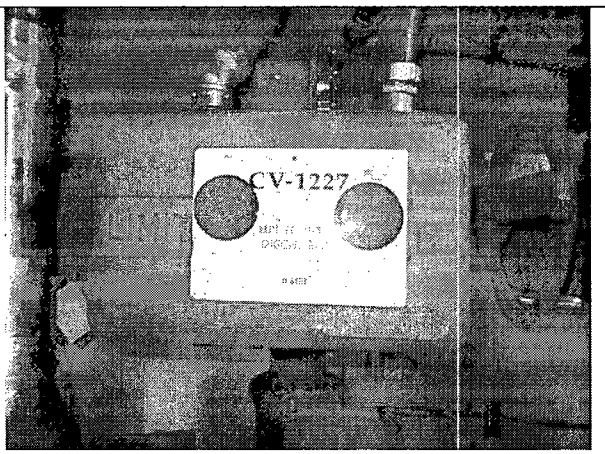
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-034**

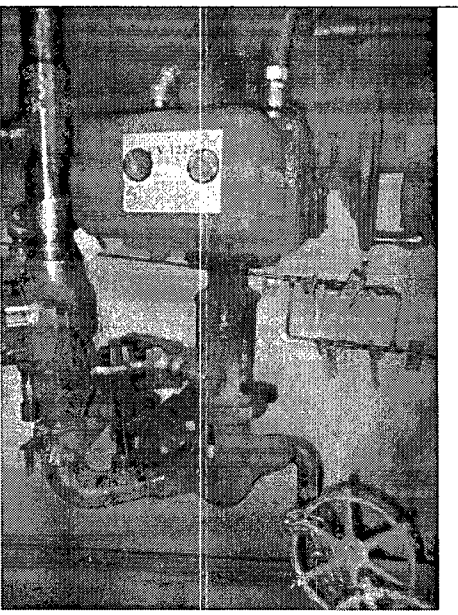
Equipment ID No. *CV-1227* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32B DISCHARGE*

Photographs



Note: *Image shows the equipment tag, CV-1227.*



Note: *General image shows the entire valve and operator.*

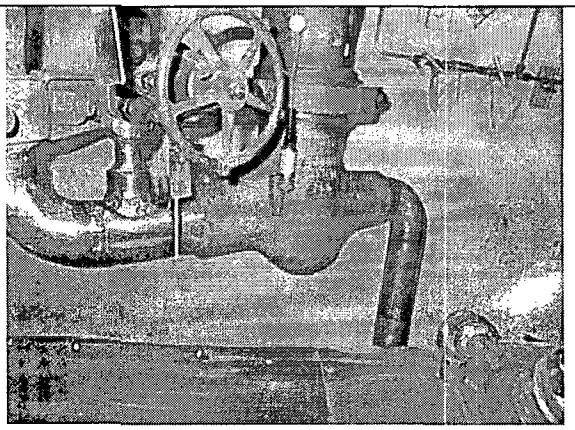
Sheet 5 of 5

Status: Y☒ N☐ U☐

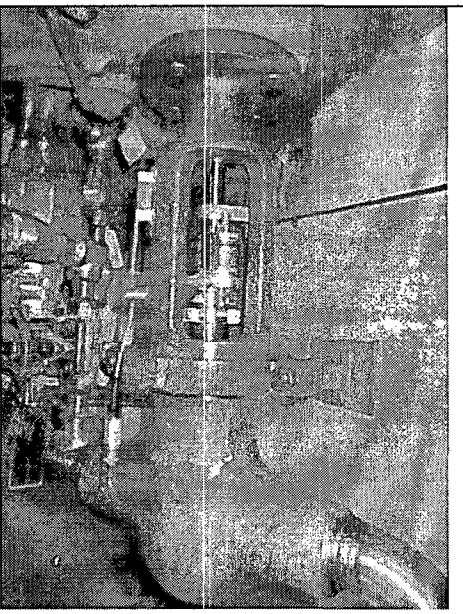
Seismic Walkdown Checklist (SWC) **SWEL1-034**

Equipment ID No. *CV-1227* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *HPI TO P-32B DISCHARGE*



Note: *General image of the valve (CV-1227).*



Note: *General image of the valve (CV-1227).*

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. *CV-7403* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RB PURGE OUTLET*

Location: Bldg. *RB* Floor El. *424* Room, Area *15*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. *CV-7403* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RB PURGE OUTLET*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. *CV-7403* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RB PURGE OUTLET*

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: _____

_____ _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. *CV-7403* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RB PURGE OUTLET*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. *CV-7403* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RB PURGE OUTLET*

Note:	**Note:**

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-036

Equipment ID No. *CV-2235* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CRD NON-NUC ICW INLET RB ISOL*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☒
   This equipment item is an in-line valve. Although it contains bolts, it is not anchored to another equipment item. This item is also not part of the 50%.
2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-036

Equipment ID No. *CV-2235* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CRD NON-NUC ICW INLET RB ISOL*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage was found to be free from potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There is a pipe that runs across below Item CV-2235, but since the equipment is well anchored and properly attached to concrete wall at the penetration region, there is no concern of impact here. Therefore, soft targets are free from impact.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no adverse conditions due to overhead systems.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-036

Equipment ID No. *CV-2235* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CRD NON-NUC ICW INLET RB ISOL*

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☐

    No other seismic conditions were found to affect the equipment's integrity.

Comments (Additional pages may be added as necessary)

Evaluated by: *Genaro Barragan Jr.* Date: *10/03/2012*

Michael E. Perez *10/03/2012*

Sheet 4 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-036**

Equipment ID No. *CV-2235* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CRD NON-NUC ICW INLET RB ISOL*

Photographs

Note: *Tag ID number of Item CV-2235.*

Note: *View of valve.*

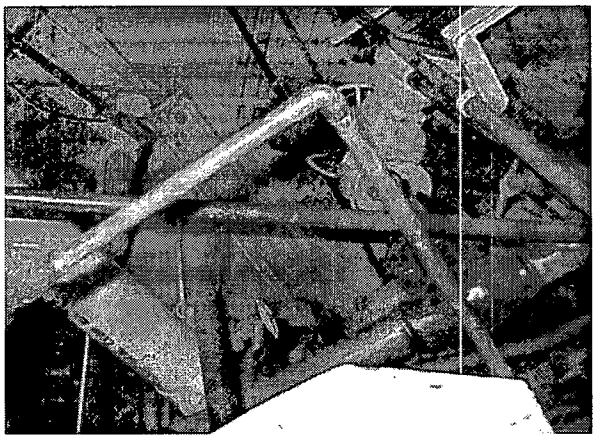
Sheet 5 of 5

Status: Y☒ N☐ U☐

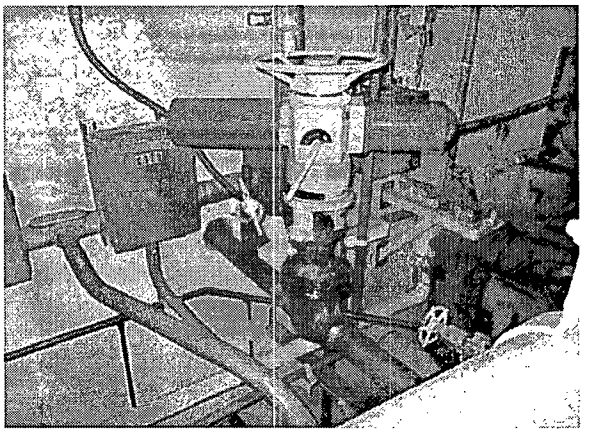
Seismic Walkdown Checklist (SWC) **SWEL1-036**

Equipment ID No. *CV-2235* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CRD NON-NUC ICW INLET RB ISOL*



Note: *Overhead view*



Note: *Attached lines have adequate flexibility.*

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-037

Equipment ID No. *CV-6205* Equip. Class[1] *8 – Motor Operated and Solenoid Operated Valves*

Equipment Description *CHILL WTR RTN RB ISOL*

Location: Bldg. *RB* Floor El. *357* Room, Area *130*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-037

Equipment ID No. *CV-6205* Equip. Class *8 – Motor Operated and Solenoid Operated Valves*

Equipment Description *CHILL WTR RTN RB ISOL*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-037**

Equipment ID No. *CV-6205* Equip. Class *8 – Motor Operated and Solenoid Operated Valves*

Equipment Description *CHILL WTR RTN RB ISOL*

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: _____

_____ _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-037**

Equipment ID No. *CV-6205* Equip. Class *8 – Motor Operated and Solenoid Operated Valves*

Equipment Description *CHILL WTR RTN RB ISOL*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-037

Equipment ID No. *CV-6205* Equip. Class *8 – Motor Operated and Solenoid Operated Valves*

Equipment Description *CHILL WTR RTN RB ISOL*

Note:	**Note:**

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-038

Equipment ID No. *CV-1213* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *LD CLR E-29A IN ISOL*

Location: Bldg. *RB* Floor El. *336* Room, Area *250*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-038

Equipment ID No. *CV-1213* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *LD CLR E-29A IN ISOL*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-038

Equipment ID No. *CV-1213* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *LD CLR E-29A IN ISOL*

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: _____

_____ _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-038**

Equipment ID No. *CV-1213* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *LD CLR E-29A IN ISOL*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-038**

Equipment ID No. *CV-1213* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *LD CLR E-29A IN ISOL*

Note:	**Note:**

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-039

Equipment ID No. *CV-1273* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-32A SEAL RETURN*

Location: Bldg. *RB* Floor El. *358* Room, Area *0*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-039

Equipment ID No. *CV-1273* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-32A SEAL RETURN*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-039

Equipment ID No. *CV-1273* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-32A SEAL RETURN*

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: _____

_____ _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-039**

Equipment ID No. *CV-1273* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-32A SEAL RETURN*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-039

Equipment ID No. *CV-1273* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-32A SEAL RETURN*

Note:	**Note:**

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-040

Equipment ID No. *CV-3646* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-4A TO P-4B DISCH CROSSOVER*

Location: Bldg. *INTAKE BLDG* Floor El. *354* Room, Area *241*

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☒

   This item is divided into two parts. One part is the inline valve, which contains no anchorage. The other part is the control component, which is anchored with four bolts to the concrete floor. It is also not part of the 50%.

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

   The anchors at the top and at the bottom that were identified at the upper level of the intake building were ruled to be free from the conditions stated above. There were holes on top of actuator with threads, but no holes on the bottom. There was no missing hardware detected in the upper or lower levels of the equipment item.

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

   No mild surface corrosion on the control portion of the component. It appears that mild surface corrosion is evident for the anchors in the inline valve portion of the component.

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

   The equipment extended from the upper level to the lower level of the intake building. The operator portion of the valve was supported by a tubular steel pedestal, which was anchored to the concrete floor of the upper level. There were no severe cracks observed in this anchorage. There were some surface cracks in the paint, but these do not affect the anchorage of the equipment item. No similar anchorage was present at the inline valve region of the equipment, which is located at the lower level of the intake building.

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-040

Equipment ID No. *CV-3646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-4A TO P-4B DISCH CROSSOVER*

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☒
   Item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   The anchorage in the system has been determined to be free from potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets have been present to be potentially impacted by nearby equipment or structures during a seismic hazard.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no masonry block walls or ceiling tiles present in the equipment location. Overhead equipment such as conduits, ducts, and panels are all supported in proper conditions. There are, however, two lighting fixtures near the equipment with two S-hooks that are open and need to be modified in order to maintain the IPEEE commitment. CR-ANO-1-2012-01613 initiated.

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Open S-hooks that are present in the two lighting fixtures that are near the equipment. Closing these S-hooks is an IPEEE commitment.

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-040

Equipment ID No. *CV-3646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-4A TO P-4B DISCH CROSSOVER*

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 large pump in the vicinity of the equipment item that is anchored properly (Item P-4B), making it very unlikely for it to collapse onto the equipment.

Comments (Additional pages may be added as necessary)

Both upper and lower levels of the Item CV-3646 have been ruled to be in adequate conditions. The only issues found in this inspection that required further attention were the open S-hooks found in the two lighting fixtures near this item, since these can potentially collapse onto the item during a seismic event. All details of the component were complete; there were no missing or loose hardware detected; no cracks in the concrete at or near the anchorage of the system were observed. Although there may have been some cracks in the paint, these have no effect on the anchorage's performance and safety functions.

Evaluated by: *Roy Berryman* Date: *10/9/2012*

Michael E. Perez *10/9/2012*

Sheet 4 of 6

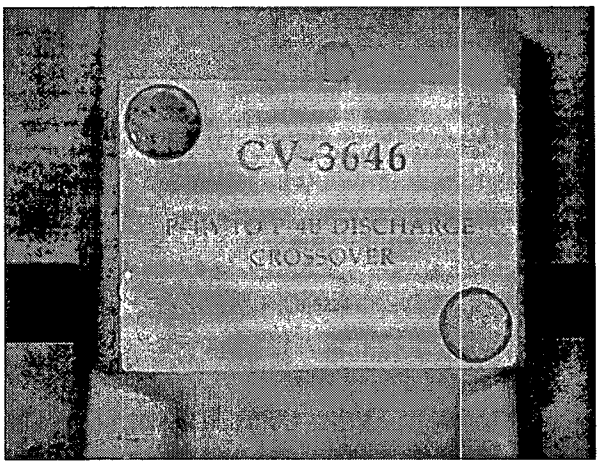
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-040**

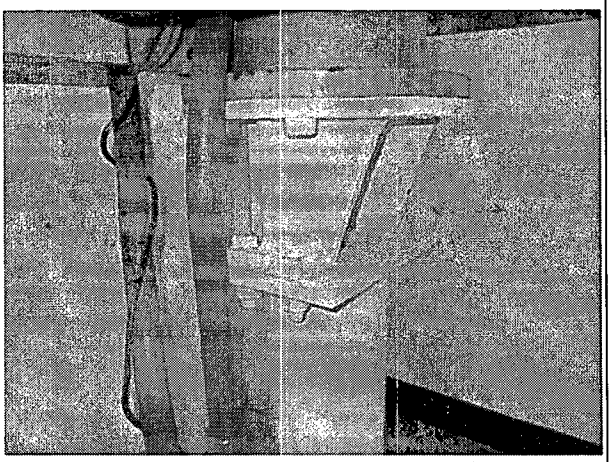
Equipment ID No. *CV-3646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-4A TO P-4B DISCH CROSSOVER*

Photographs



Note: *Equipment ID tag for Item CV-3646.*



Note: *The anchor bolts in the control portion of the equipment have been determined to be in adequate conditions.*

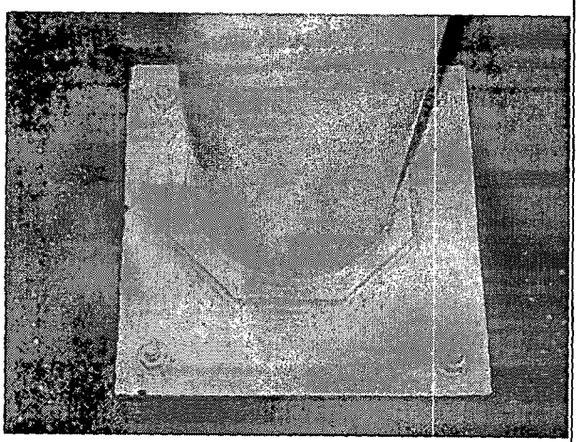
Sheet 5 of 6

Status: Y☒ N☐ U☐

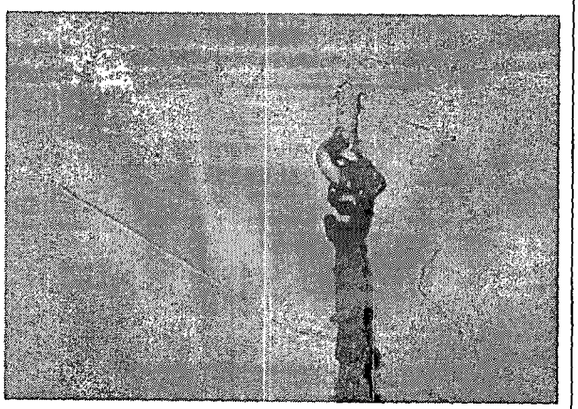
Seismic Walkdown Checklist (SWC) **SWEL1-040**

Equipment ID No. *CV-3646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-4A TO P-4B DISCH CROSSOVER*



Note: *No cracks in the concrete for this anchored system have been detected.*



Note: *Open S-hooks have been observed for two lighting fixtures near the equipment item. These can potentially collapse onto the equipment item during a seismic event.*

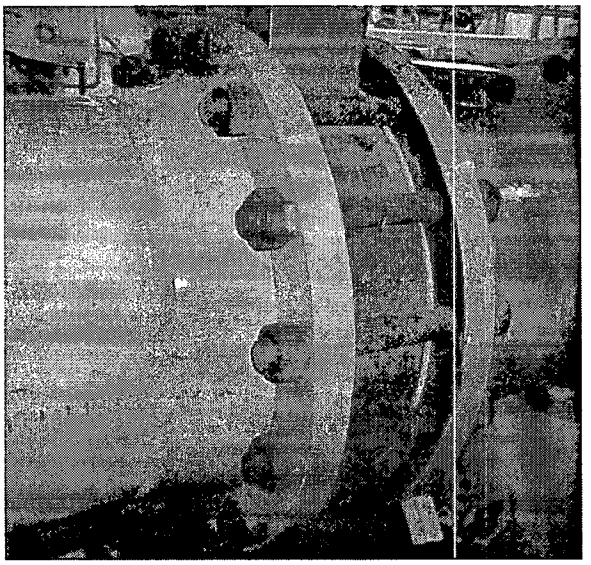
Sheet 6 of 6

Status: Y☒ N☐ U☐

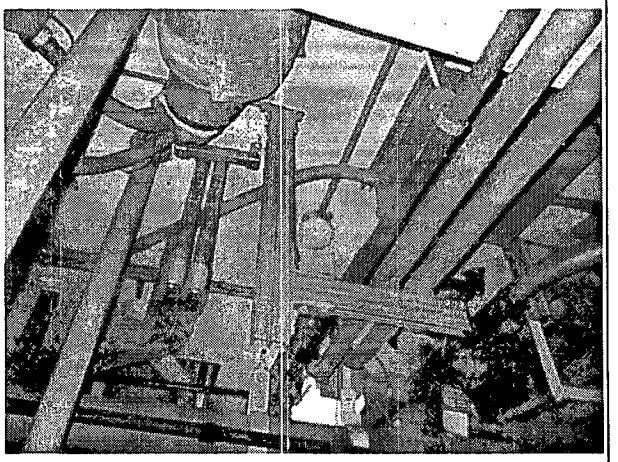
Seismic Walkdown Checklist (SWC) SWEL1-040

Equipment ID No. *CV-3646* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *P-4A TO P-4B DISCH CROSSOVER*



Note: *There appeared to be some mild surface oxidation in the in-line valve portion of the equipment item, but this has been ruled not to be an issue.*



Note: *All overhead equipment near the inline valve has been inspected and ruled to be adequately supported, making it unlikely for these to collapse onto the equipment during a seismic event.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. *CV-3850* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP I ISOLATION*

Location: Bldg. *RAB* Floor El. *335* Room, Area *34*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   This is an in-line, welded component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   There is some mild corrosion on the attached piping (North side of valve, near weld) connecting to the valve. See images below.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   This is an in-line valve. Welds have no cracks.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. *CV-3850* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP I ISOLATION*

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☒
   This item is not part of the 50%.

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

Interaction Effects

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

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. *CV-3850* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP I ISOLATION*

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☐

    No other conditions that could affect the safety functions of the equipment were observed.

Comments (Additional pages may be added as necessary)

The pipe connecting to the valve (CV-3850) had some mild corrosion near the North side (near anchorage). See images below.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/12*

Eric Dilbone *10/9/12*

Sheet 4 of 5

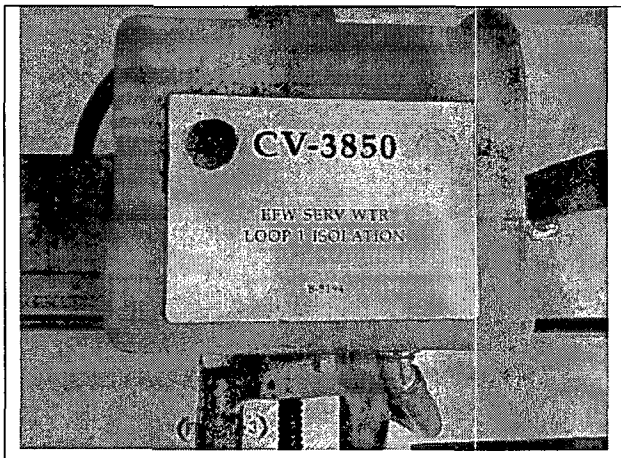
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-041

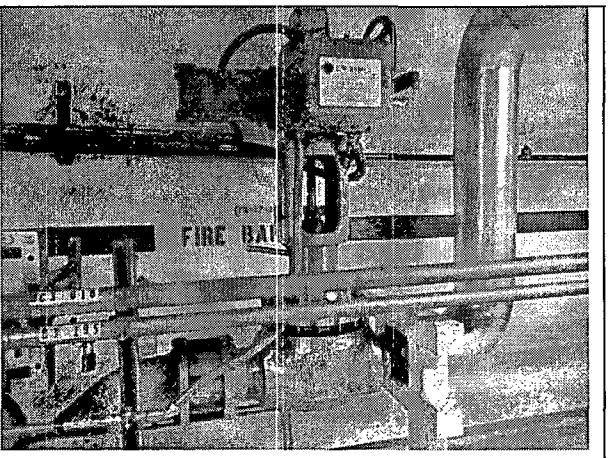
Equipment ID No. *CV-3850* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP I ISOLATION*

Photographs



Note: *General image of equipment ID tag, CV-3850.*



Note: *General image of valve, CV-3850.*

Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. *CV-3850* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP I ISOLATION*

Note: *This image shows the mild corrosion that appears near the anchorage of the pipe leading into the valve, CV-3850.*

Note: *This image shows the residuals of the mild corrosion on the pipe.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. *CV-1206* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCP SEAL INJECTION BLOCK*

Location: Bldg. *RAB* Floor El. *360* Room, Area *79*

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☒
   This equipment item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. *CV-1206* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCP SEAL INJECTION BLOCK*

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☒
   Item is not part of the 50%.

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

Interaction Effects

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

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

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Equipment is free of potentially adverse seismic interaction effects. Valve appears to be well isolated from other equipment in the area.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. *CV-1206* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCP SEAL INJECTION BLOCK*

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☐

    No other seismic conditions that could affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Valve (CV-1206), appeared to be in appropriate condition. There was no bent, broken, or loose hardware and there were also no signs of corrosion.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/2012*

Eric Dilbone *10/9/2012*

Sheet 4 of 5

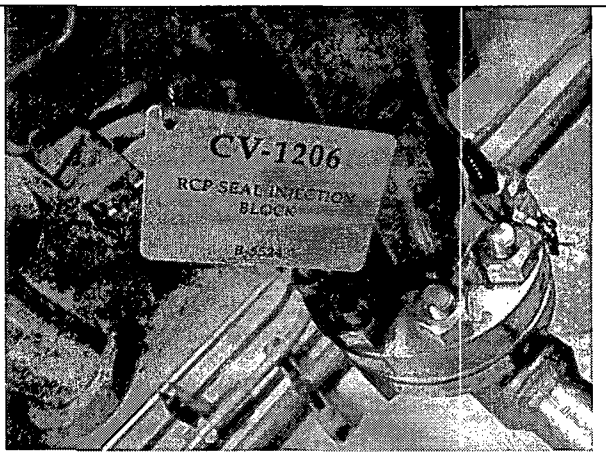
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 042**

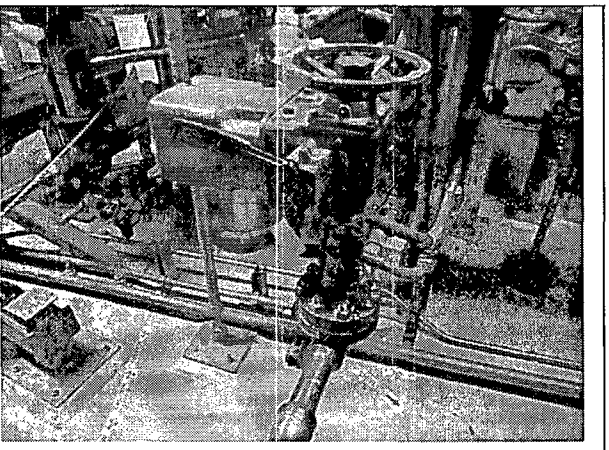
Equipment ID No. *CV-1206* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCP SEAL INJECTION BLOCK*

Photographs



Note: *Image shows the equipment tag (CV-1206).*



Note: *General image of the valve and operator.*

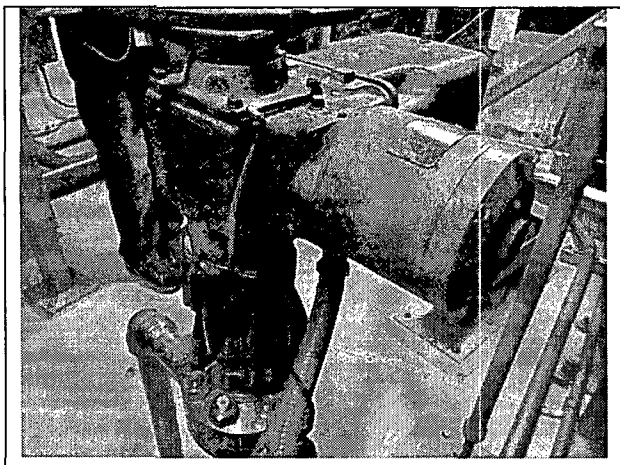
Sheet 5 of 5

Status: Y☒ N☐ U☐

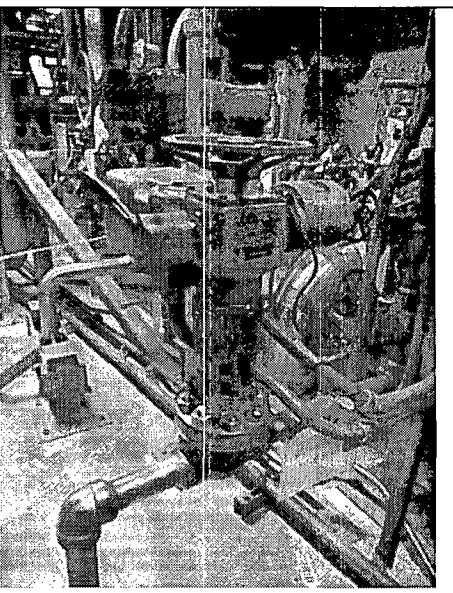
Seismic Walkdown Checklist (SWC) **SWEL1- 042**

Equipment ID No. *CV-1206* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *RCP SEAL INJECTION BLOCK*



Note: *General image of CV-1206.*



Note: *General image of CV-1206.*

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-043

Equipment ID No. *CV-2806* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A SUCTION FROM SW*

Location: Bldg. *RAB* Floor El. *335* Room, Area *38*

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 component.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-043

Equipment ID No. *CV-2806* Equip. Class[2] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A SUCTION FROM SW*

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☒
   Not part of the 50%.

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

Interaction Effects

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

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

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

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

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

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-043

Equipment ID No. *CV-2806* Equip. Class[3] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A SUCTION FROM SW*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Michael E. Perez* Date: *10/8/2012*

Daniel Parker *10/8/2012*

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

Sheet 4 of 6

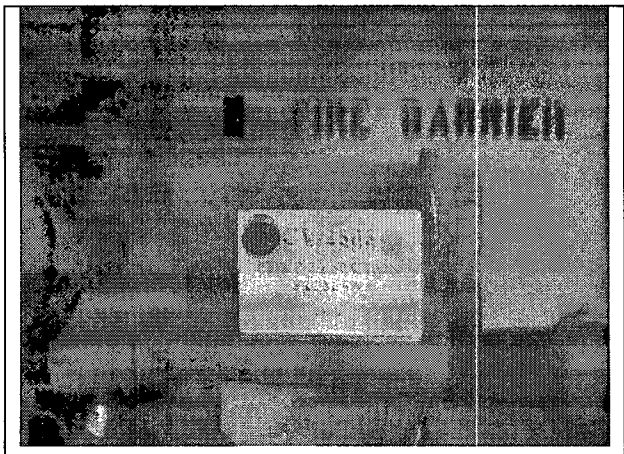
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-043

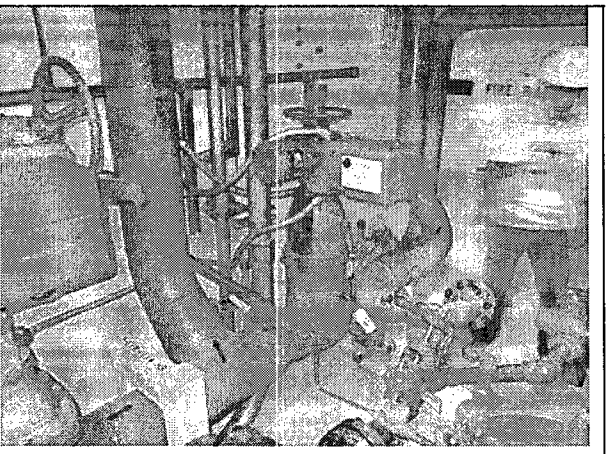
Equipment ID No. *CV-2806* Equip. Class[4] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A SUCTION FROM SW*

Photographs



Note: *Equipment Identification Tag.*



Note: *In-Line Valve CV-2806.*

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

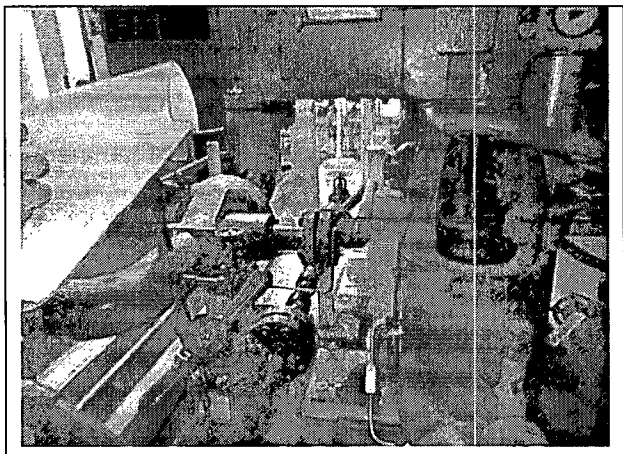
Sheet 5 of 6

Status: Y☒ N☐ U☐

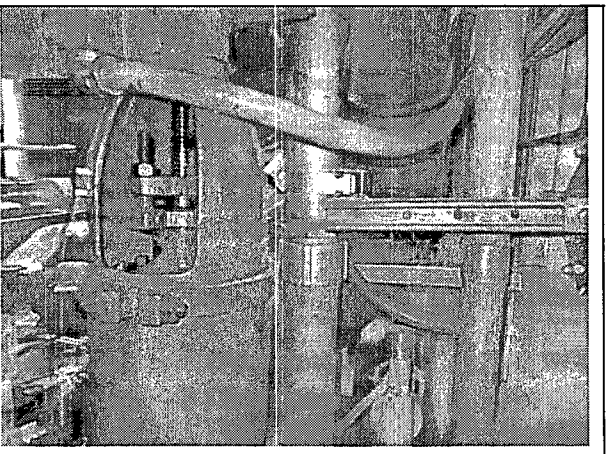
Seismic Walkdown Checklist (SWC) SWEL1-043

Equipment ID No. *CV-2806* Equip. Class[5] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A SUCTION FROM SW*



Note: *In-Line Valve CV-2806.*



Note: *Adjacent piping system, adequately secured with uni-strut.*

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

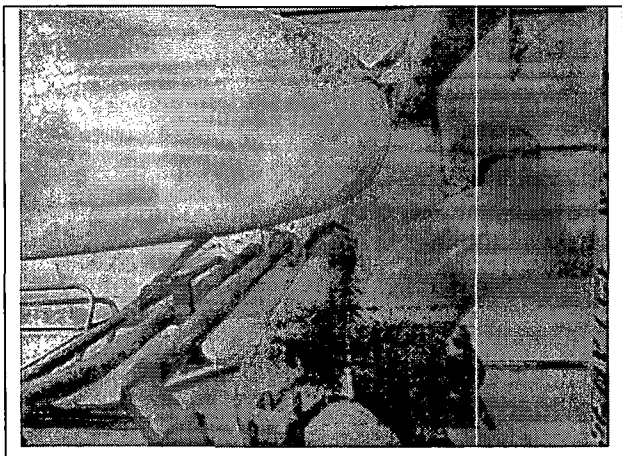
Sheet 6 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-043**

Equipment ID No. *CV-2806* Equip. Class[6] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW P-7A SUCTION FROM SW*



Note: *Overhead piping systems and electrical conduit.*

Note:

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-044

Equipment ID No. *CV-3851* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP II ISOLATION*

Location: Bldg. *RAB* Floor El. *335* Room, Area *34*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   This is an in-line valve.

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   This is an in-line valve. The anchors supporting the pipe (connecting to valve) to the wall were inspected. No cracks near those anchors were identified.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-044

Equipment ID No. *CV-3851* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP II ISOLATION*

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☒
   This item is not part of the 50%.

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

Interaction Effects

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

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

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Yes, equipment is free of potentially adverse seismic interaction effects. The area around the valve is spacious and there is no concern for interaction.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-044

Equipment ID No. *CV-3851* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP II ISOLATION*

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☐

    Yes, there are no other conditions that could affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Valve, CV-3851, was found in a spacious room. There was no concern for interaction effects with other equipment in the area. The attached lines seem to have adequate flexibility. No conditions that could affect the safety functions of the valve were discovered.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/2012*

Eric Dilbone *10/9/2012*

Sheet 4 of 5

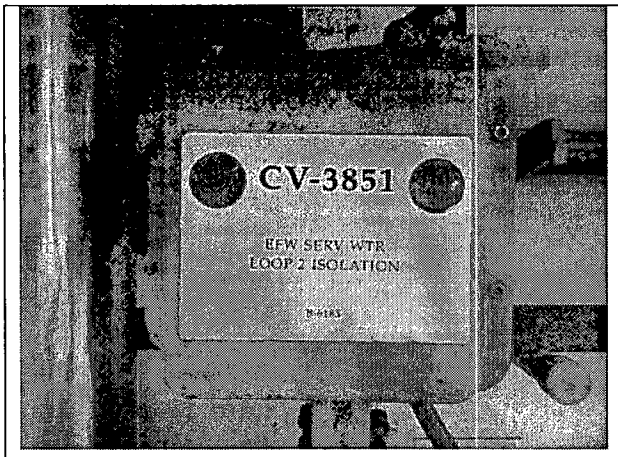
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-044**

Equipment ID No. *CV-3851* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP II ISOLATION*

Photographs



Note: *General image shows the equipment tag, CV-3851.*

Note: *General image shows part of the attached flexible lines.*

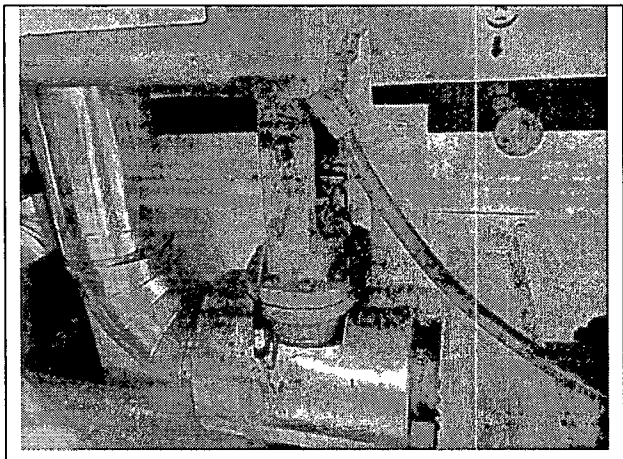
Sheet 5 of 5

Status: Y☒ N☐ U☐

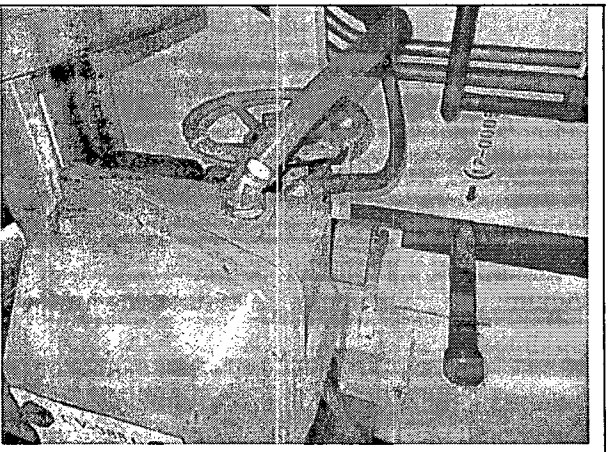
Seismic Walkdown Checklist (SWC) **SWEL1-044**

Equipment ID No. *CV-3851* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *EFW SERV WTR LOOP II ISOLATION*



Note: *Component Overview. Observe flexible conduit.*



Note: *This is a general image showing the top of the valve operator. This image also shows the attached flexible lines.*

Sheet 1 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-045

Equipment ID No. *N/A* Equip. Class[1] *N/A*

Equipment Description *NOT USED*

Location: Bldg. *N/A* Floor El. *N/A* Room, Area *N/A*

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.

Sheet 2 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-045

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

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☐

Sheet 3 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-045

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: _____ Date: _____

Sheet 4 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-045

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-045

Equipment ID No. *N/A* Equip. Class *N/A*

Equipment Description *NOT USED*

Note:	**Note:**

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 046

Equipment ID No. *SV-5218* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMA-3/4 AIR START SOLENOID*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☐
   This is part of the 50% anchorage verification.

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   The solenoid valve is anchored to a bracket on the EDG skid, so concrete is not applicable.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 046

Equipment ID No. *SV-5218* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMA-3/4 AIR START 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☐
   The anchorage is consistent with information from CALC-94-SQ-1001-08, page 372. The anchorage consists of a bracket that is mounted to the skid.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All anchorage was free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets that could be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   The attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above evaluation, the solenoid valve is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 046

Equipment ID No. *SV-5218* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMA-3/4 AIR START 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

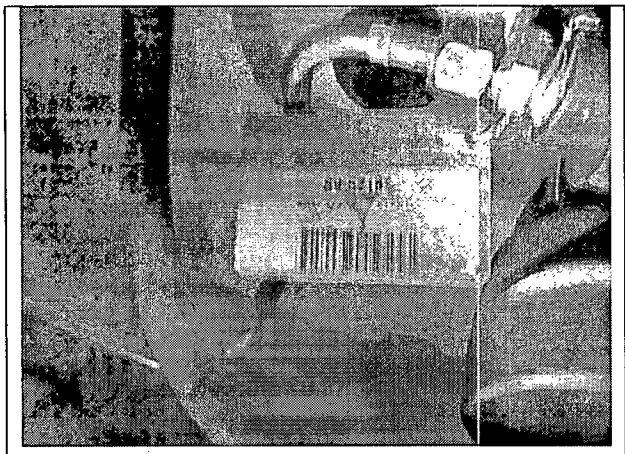
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 046**

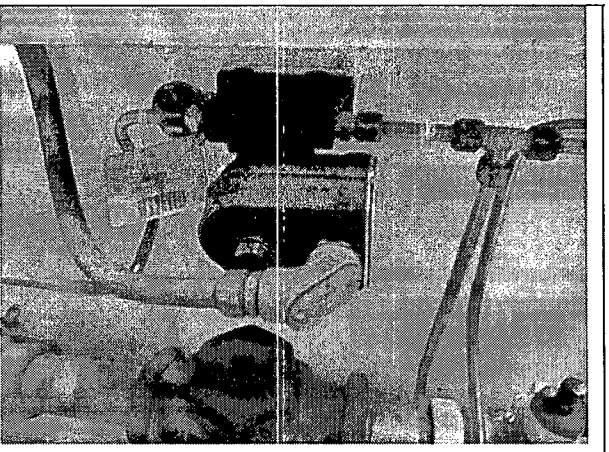
Equipment ID No. *SV-5218* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMA-3/4 AIR START SOLENOID*

Photographs



Note: *Photo showing equipment ID tag identifying SV-5218.*



Note: *General view showing SV-5218 mounted by bracket (black).*

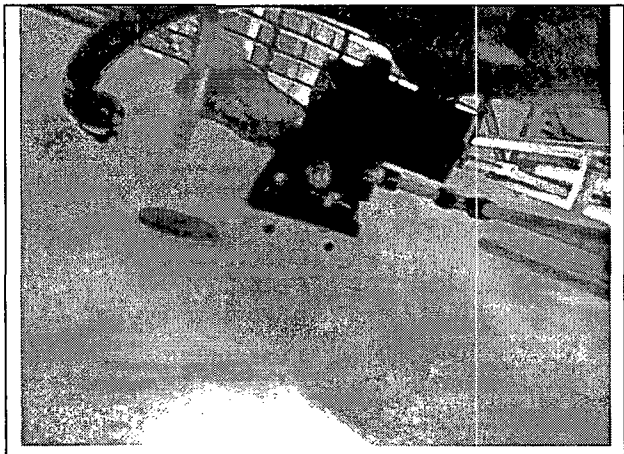
Sheet 5 of 5

Status: Y☒ N☐ U☐

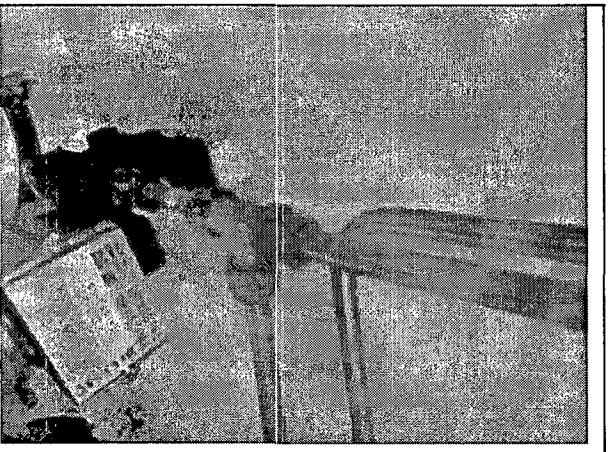
Seismic Walkdown Checklist (SWC) **SWEL1- 046**

Equipment ID No. *SV-5218* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMA-3/4 AIR START SOLENOID*



Note: *Picture from below SV-5218 showing bolts anchoring the bracket (black) to the skid.*



Note: *Photo showing attached lines and anchorage of bracket to skid.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-047

Equipment ID No. *SV-2243B* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☐
   This item is part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Anchorage was inspected and appeared to be free of the conditions listed above.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Solenoid valve is anchored to steel frame.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-047

Equipment ID No. *SV-2243B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

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☐
   This item is mounted in accordance with OP.6030-113 Attachment 10

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

Interaction Effects

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

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☐
   Overheard steel plate serves as adequate protection. Overheard steel frame protects equipment.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-047

Equipment ID No. *SV-2243B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

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☐
    All equipment appears to be in proper order.

Comments (Additional pages may be added as necessary)

Solenoid valve is well supported. Anchorage appears to be in proper order and does not contain any missing or corroded hardware.

Evaluated by: *Genaro Barragan Jr.* Date: *10/3/2012*

Michael E. Perez *10/3/2012*

Sheet 4 of 5

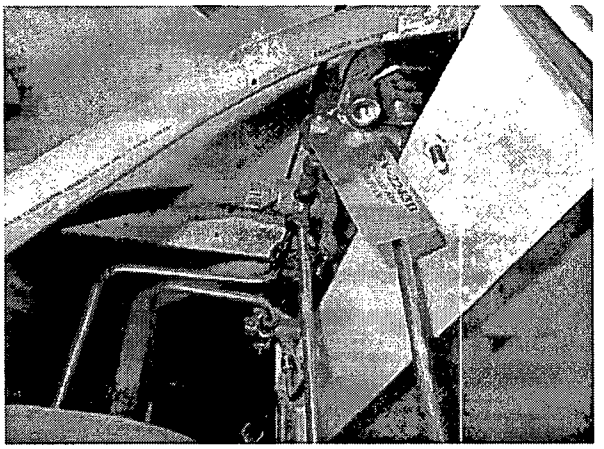
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-047**

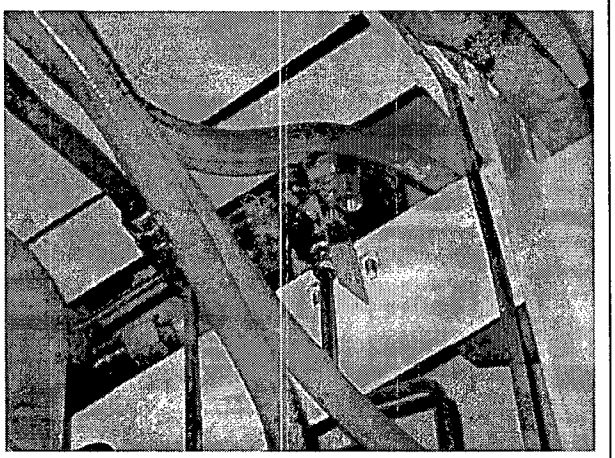
Equipment ID No. *SV-2243B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

Photographs



Note: *Equipment ID SV-2243B. Note the adequate flexibility of the attached lines.*



Note: *Image depicts the anchorage configuration of the solenoid valve.*

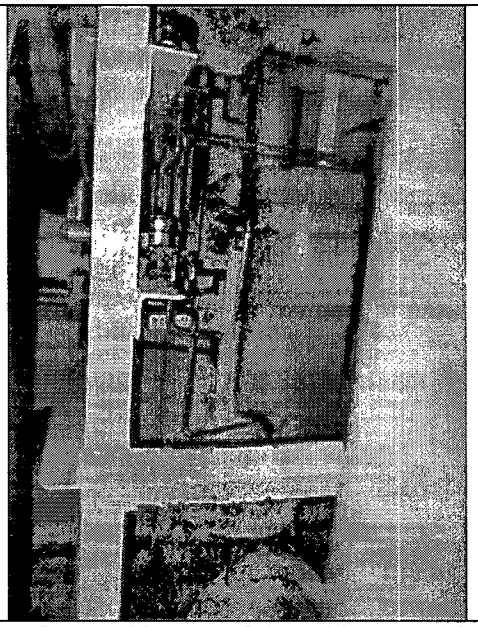
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-047**

Equipment ID No. *SV-2243B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*



Note: *General image of the white metal frame where the solenoid valve is anchored.*

Note:

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-048

Equipment ID No. *SV-2233A* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☐
   This item is anchored to a steel frame. Configuration verification is required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Anchorage was inspected and appeared to be free of the conditions listed above.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Solenoid valve is anchored to steel frame.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-048

Equipment ID No. *SV-2233A* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

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☐
   This item is mounted in accordance with OP.6030-113 Attachment 10

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

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no credible threats located in the vicinity of the equipment.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-048**

Equipment ID No. *SV-2233A* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

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☐

    No seismic conditions that could adversely affect the safety functions of the equipment were observed.

Comments (Additional pages may be added as necessary)

This solenoid valve (SV-2233A) is approximately 15 feet from the ground. Due to this condition, the images below do not clearly show the tag ID number. However, the Seismic Walkdown Engineers clearly identified the tag number on the equipment in the field. All anchorage appears to be in proper conditions. There were no loose or missing hardware discovered.

Evaluated by: *Genaro Barragan Jr.* Date: *10/3/2012*

Michael E. Perez *10/3/2012*

Sheet 4 of 5

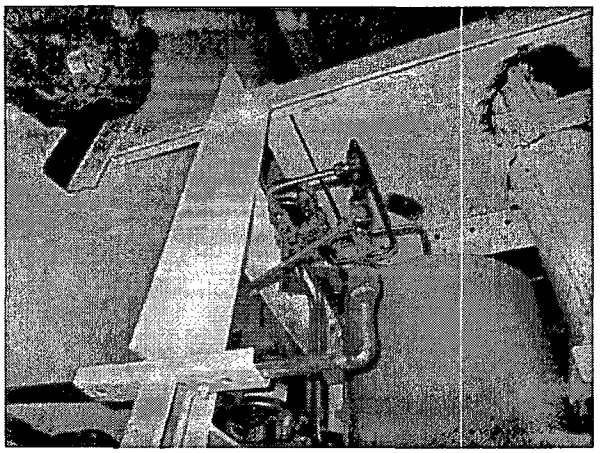
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-048**

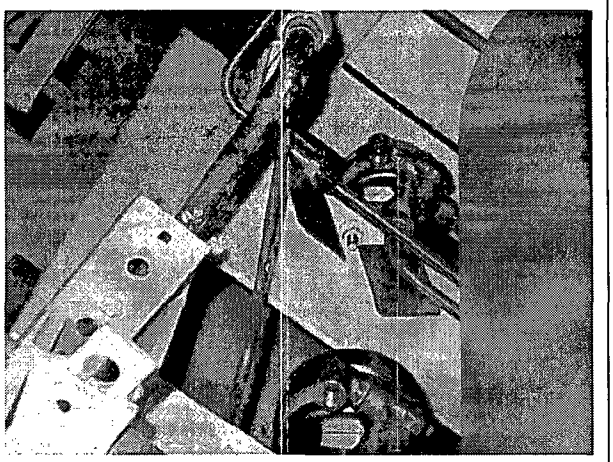
Equipment ID No. *SV-2233A* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

Photographs



Note: *General image of the solenoid valve SV-2233A.*



Note: *General image of the solenoid valve SV-2233A. Note that there is sufficient flexibility in the attached lines.*

Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-048

Equipment ID No. *SV-2233A* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2233 AIR SUPPLY*

Note: *Equipment ID was positively identified to be SV-2233A.*

Note:

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-049

Equipment ID No. *SV-2234B* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2234 AIR SUPPLY*

Location: Bldg. *RAB* Floor El. *356* Room, Area *77*

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☐
   This item is part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   Anchorage was inspected and appeared to be free of the conditions listed above.

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Equipment is anchored to the steel frame.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-049

Equipment ID No. *SV-2234B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2234 AIR SUPPLY*

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☐
   This item is mounted in accordance with OP.6030-113 Attachment 10

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   There are no soft targets in the area.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no credible threats located in the vicinity of the equipment.

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-049

Equipment ID No. *SV-2234B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2234 AIR SUPPLY*

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☐

    No seismic conditions that could adversely affect the safety functions of the equipment were observed.

Comments (Additional pages may be added as necessary)

Anchorage appears to properly secure the solenoid valve. No possible interaction effects were observed.

Evaluated by: *Genaro Barragan Jr.* Date: *10/3/2012*

Michael E. Perez *10/3/2012*

Sheet 4 of 5

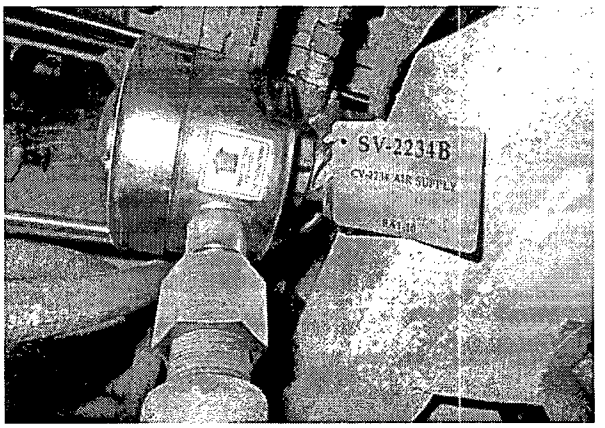
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-049

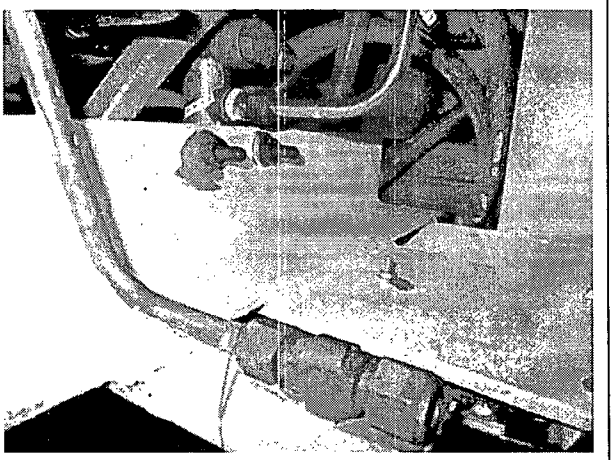
Equipment ID No. *SV-2234B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2234 AIR SUPPLY*

Photographs



Note: *Equipment ID SV-2234B.*



Note: *Image shows the anchorage configuration from the rear.*

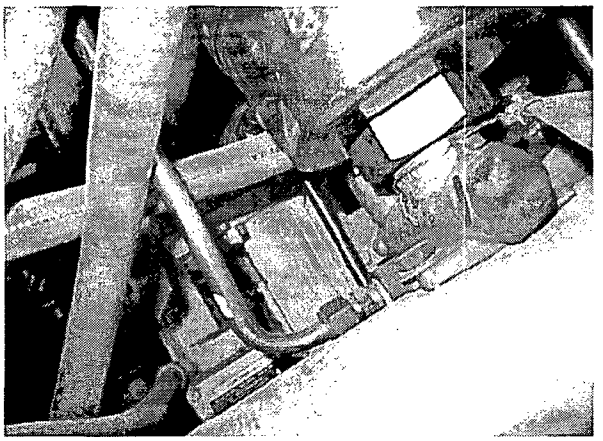
Sheet 5 of 5

Status: Y☒ N☐ U☐

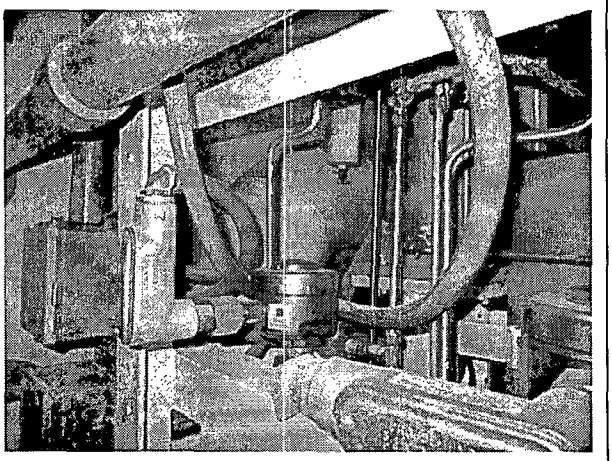
Seismic Walkdown Checklist (SWC) **SWEL1-049**

Equipment ID No. *SV-2234B* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *CV-2234 AIR SUPPLY*



Note: *General image of valve.*



Note: *General image showing the entire solenoid valve. This image also shows the metal frame that supports the valve. Note that the flexibility of the attached lines is adequate.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. *SV-5239* Equip. Class[1] *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMB – 1/2 AIR START*

Location: Bldg. *RAB* Floor El. *369* Room, Area *86*

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☒
   Air Start was bolted to a mounting plate which was bolted to the side of the skid. All required bolted connections were identified.

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   All bolts connecting component to mounting plate and the skid were painted and clean.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   This is not applicable since it is mounted directly to the EDG skid.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. *SV-5239* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMB – 1/2 AIR START*

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☒
   This is not applicable since it is not part of the 50% of SWEL items requiring anchorage configuration verification.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   Soft targets are free from impact by nearby equipment and structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The component was mounted close to the skid and below the side access platform. There are no credible threats located in the vicinity of the equipment.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaciton effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-050**

Equipment ID No. *SV-5239* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMB – 1/2 AIR START*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Eric Dilbone* Date: *10/3/2012*

Daniel Parker *10/3/2012*

Sheet 4 of 5

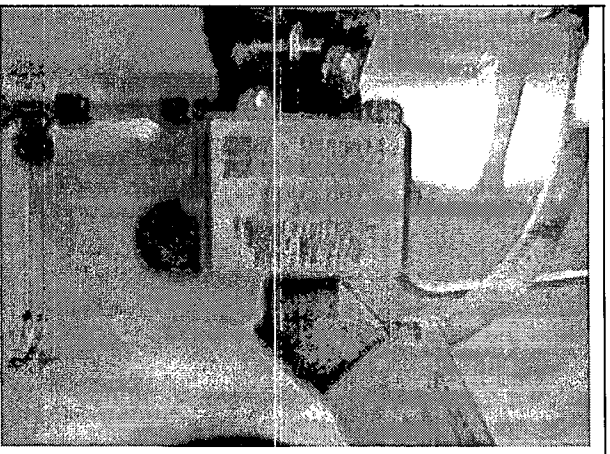
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-050**

Equipment ID No. *SV-5239* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMB – 1/2 AIR START*

Note: *Equipment ID No.*



Note: *Front View*

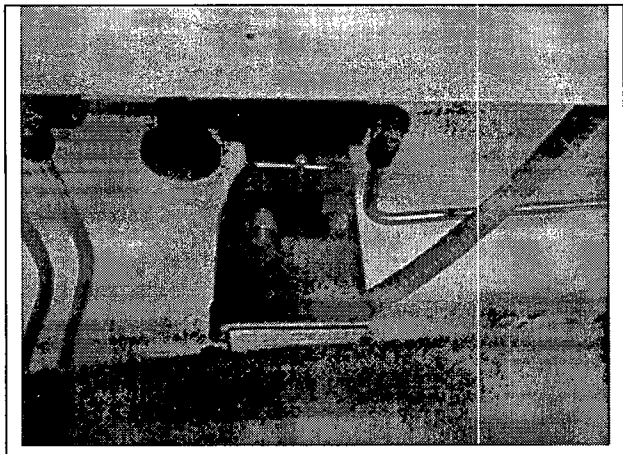
Sheet 5 of 5

Status: Y☒ N☐ U☐

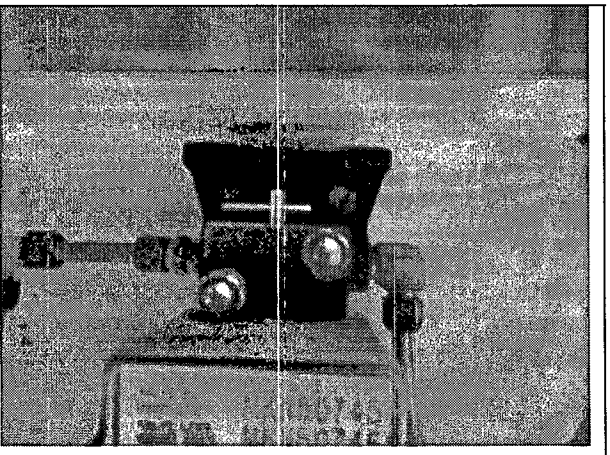
Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. *SV-5239* Equip. Class *8 – Motor-Operated and Solenoid-Operated Valves*

Equipment Description *KMB – 1/2 AIR START*



Note: *Top view showing bolted connection of component to mounting bracket.*



Note: *Front view of component and mounting bracket bolted to skid.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 051

Equipment ID No. *SV-1818* Equip. Class[1] *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *PZR/HOT LEG SAMPLE*

Location: Bldg. *RAB* Floor El. *360* Room, Area *79*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   Not applicable since this is an in-line component.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 051

Equipment ID No. *SV-1818* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *PZR/HOT LEG SAMPLE*

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☒
   This item is not part of the 50%.

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

Interaction Effects

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

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 051

Equipment ID No. *SV-1818* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *PZR/HOT LEG SAMPLE*

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☐

    No other seismic conditions that could adversely affect the safety functions of the equipment were discovered.

Comments (Additional pages may be added as necessary)

Valve is in appropriate conditions. There were no signs of corrosion or bent hardware. All attached lines have plenty of flexibility.

Evaluated by: *Genaro Barragan Jr.* Date: *10/9/2012*

Eric Dilbone *10/9/2012*

Sheet 4 of 5

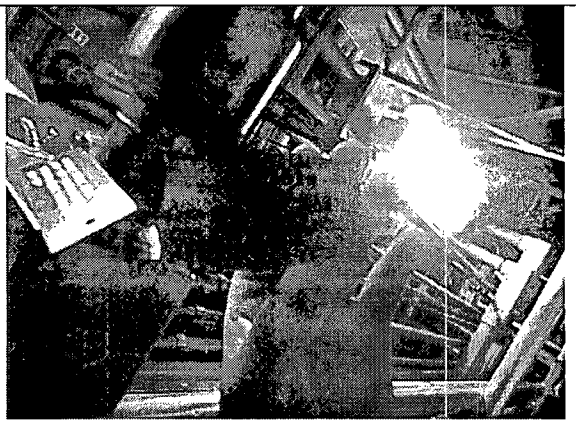
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 051**

Equipment ID No. *SV-1818* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *PZR/HOT LEG SAMPLE*

Photographs



Note: *Image shows the equipment tag, SV-1818.*

Note: *General image shows the corrosion-free surface. Welds had no cracks.*

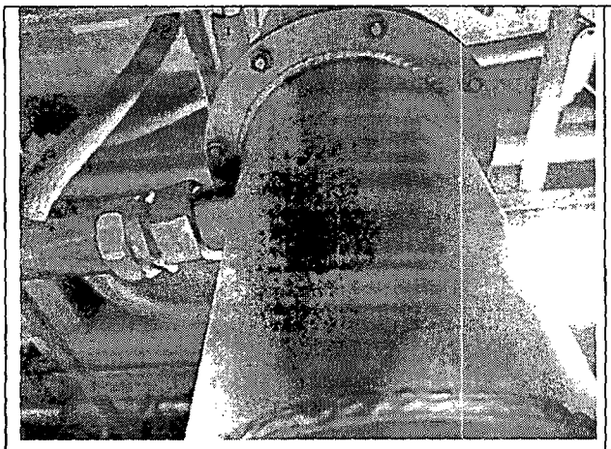
Sheet 5 of 5

Status: Y☒ N☐ U☐

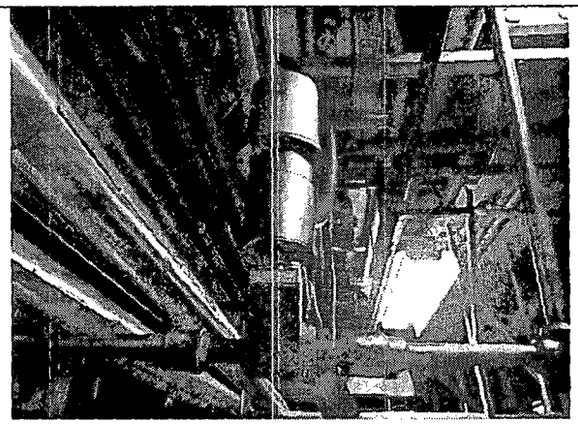
Seismic Walkdown Checklist (SWC) SWEL1- 051

Equipment ID No. *SV-1818* Equip. Class *8 - Motor-Operated and Solenoid-Operated Valves*

Equipment Description *PZR/HOT LEG SAMPLE*



Note: *General image of the weld. This image was taken directed towards the ceiling.*



Note: *General image of the valve, SV-1818.*

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 052

Equipment ID No. *VEF-24A* Equip. Class[1] *9 – Fans*

Equipment Description *DG1 ROOM EXHAUST FAN*

Location: Bldg. *RAB* Floor El. *386* Room, Area *258*

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☒
   Item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent broken or loose hardware was observed.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Fan sits on concrete curb which is concealed by the base. There are no visible signs of concrete cracks.

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 052

Equipment ID No. *VEF-24A* Equip. Class *9 – Fans*

Equipment Description *DG1 ROOM EXHAUST FAN*

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☒
   Item is not part of the 50%.

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   No soft targets were observed.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no overhead equipment or systems.

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    No adverse seismic interactions were observed.

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 052

Equipment ID No. *VEF-24A* Equip. Class *9 – Fans*

Equipment Description *DG1 ROOM EXHAUST FAN*

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☐
    No other adverse seismic conditions were observed.

Comments (Additional pages may be added as necessary)

Exhaust fan is located in an area with a low concrete ceiling with no other equipment directly above.

Evaluated by: *Daniel Andoh* Date: *10/10/2012*

Genaro Barragan Jr. *10/10/2012*

Sheet 4 of 6

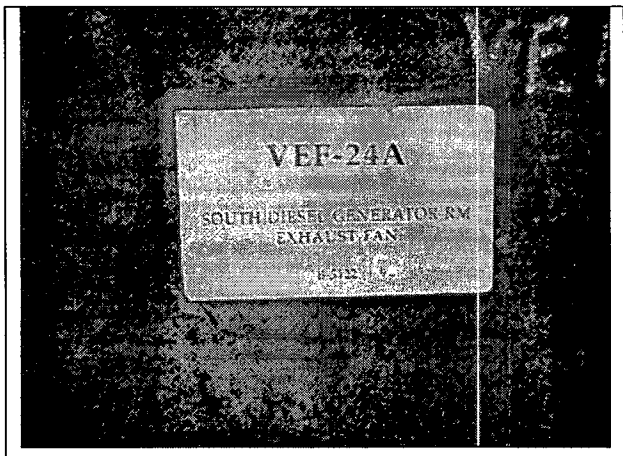
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 052**

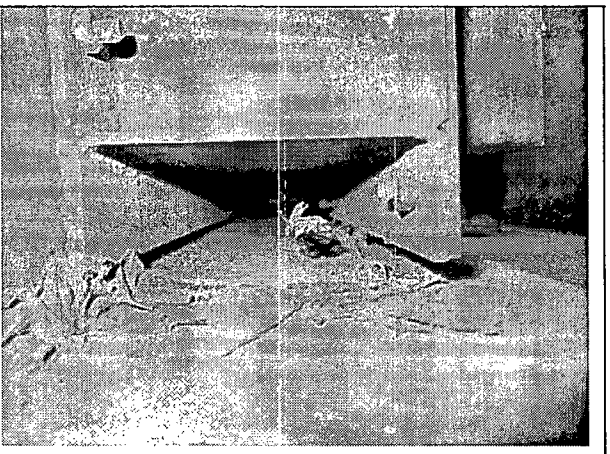
Equipment ID No. *VEF-24A* Equip. Class *9 – Fans*

Equipment Description *DG1 ROOM EXHAUST FAN*

Photographs



Note: *Equipment Tag*



Note: *Bolts at base*

Sheet 5 of 6

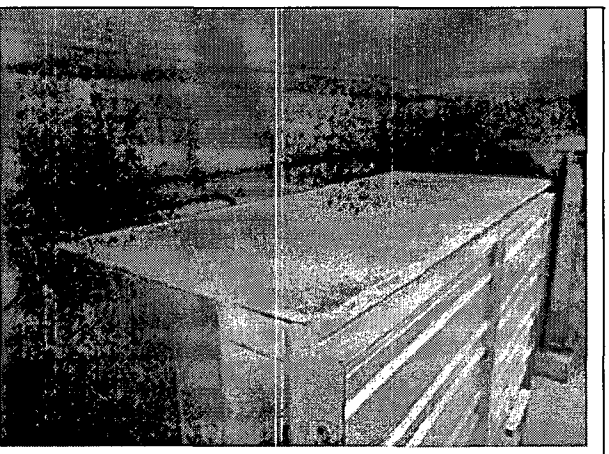
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 052

Equipment ID No. *VEF-24A* Equip. Class *9 – Fans*

Equipment Description *DG1 ROOM EXHAUST FAN*

Note: *Fan base*



Note: *Fan side view*

Sheet 6 of 6

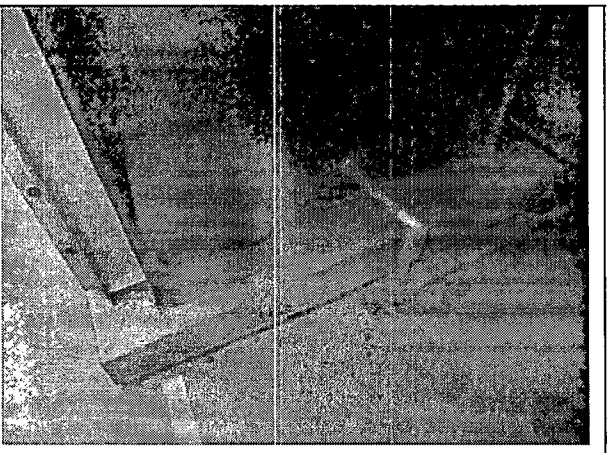
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 052**

Equipment ID No. *VEF-24A* Equip. Class *9 – Fans*

Equipment Description *DG1 ROOM EXHAUST FAN*

Note: *Fan Base*



Note: *Fan Base*

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-053

Equipment ID No. *VFP-26B* Equip. Class[1] *10 – AIR HANDLERS*

Equipment Description *DG2 INTAKE COMBUSTION AIR FILTER*

Location: Bldg. *RAB* Floor El. *369* Room, Area *86*

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☒
   Not part of the 50% configuration check.

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

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

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

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-053

Equipment ID No. *VFP-26B* Equip. Class *10 – AIR HANDLERS*

Equipment Description *DG 2 INTAKE COMBUSTION AIR FILTER*

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☒
   Not part of the 50% anchorage configuration check.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   The observed anchorage is in good condition and does not appear to present a seismic risk. The component is within a confined space and access was not authorized to enter in order inspect the opposite line of anchorage bolts. Based on the condition of the visible bolts and the dry environment within the confined space there is no indication that the opposite row of anchorage bolts are not in good condition and pose a seismic risk.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   VFP-26B is completely enclosed in a sturdy steel box. Transverse stiffener plates are welded to the top and side surfaces not adjacent to the RC walls of the room. The enclosed air-filter is judged to be adequately protected from any falling objects in the near field of the component during a seismic event.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   The filter is enclosed in a metal box, so it is free of interaction effects from overhead equipment.

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

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

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-053**

Equipment ID No. *VFP-26B* Equip. Class *10 – AIR HANDLERS*

Equipment Description *DG 2 INTAKE COMBUSTION AIR FILTER*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

The air-filter is supported on channel sections welded to the base along the long edges. The channel sections are connected with 4 bolts to angle sections of the same length. The angle sections rest on grout pads and are anchored with 4 cast-in-place anchors. The anchorage that was visible appeared to be sufficient and in good condition. Mild corrosion was evident on the cast-in-place bolts but it appeared that a simple chase of the exposed end would be sufficient maintenance. The grout pad that was visible appeared to be in good condition.

Evaluated by: *Eric Dilbone* Date: *10/2/2012*

Daniel Parker *10/2/2012*

Sheet 4 of 6

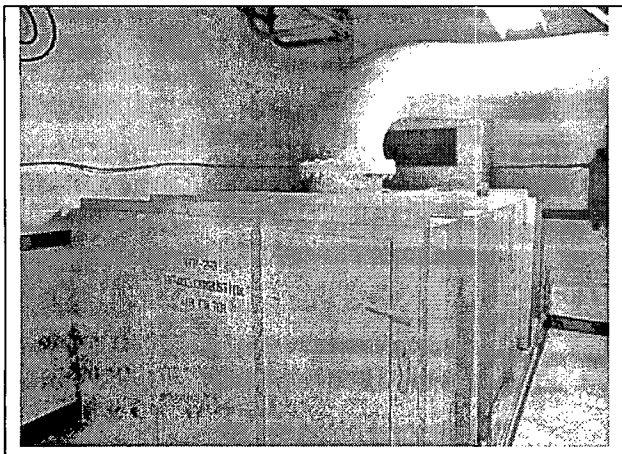
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-053

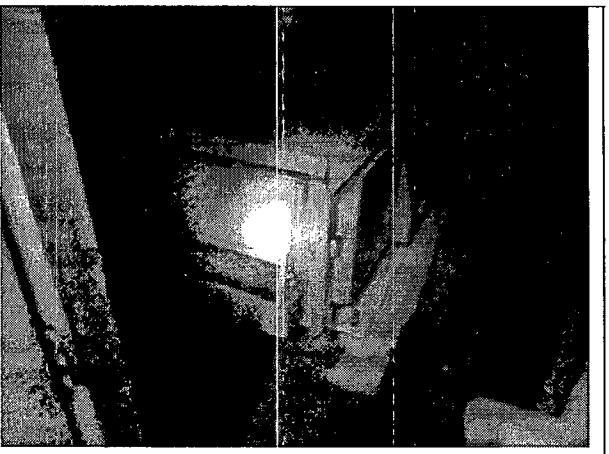
Equipment ID No. *VFP-26B* Equip. Class *10 – AIR HANDLERS*

Equipment Description *DG2 INTAKE COMBUSTION AIR FILTER*

Photographs



Note: *Outer enclosure for VFP-26B.*



Note: *VFP-26B, Diesel Generator 2 Intake Combustion Air Filter.*

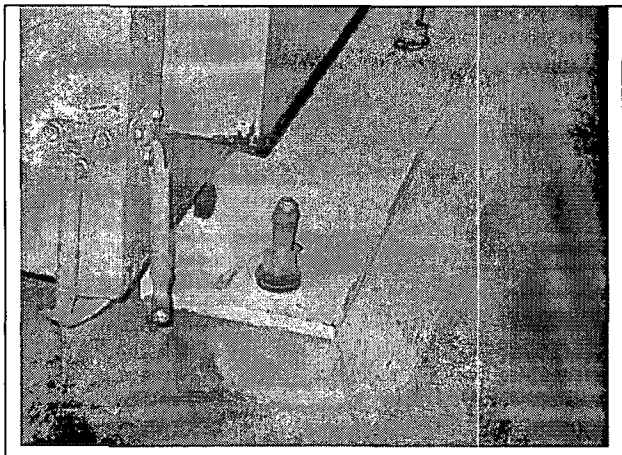
Sheet 5 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-053**

Equipment ID No. *VFP-26B* Equip. Class *10 – AIR HANDLERS*

Equipment Description *DG 2 INTAKE COMBUSTION AIR FILTER*



Note: *Near section of anchorage. Angle-section resting on grout pad with cast-in-place anchor bolts. Side of angle bolted to channel section. Channel section welded to base (long-edge) of VFP-26B.*

Note: *Near side anchorage visible.*

Sheet 6 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-053**

Equipment ID No. *VFP-26B* Equip. Class *10 – AIR HANDLERS*

Equipment Description *DG 2 INTAKE COMBUSTION AIR FILTER*

Note: *Opposite side anchorage, near end.*

Note:

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-054

Equipment ID No. *VSF-1C* Equip. Class[1] *10 – Air Handlers*

Equipment Description *RX/BLD COOLER FAN ASSEMBLY*

Location: Bldg. *RB* Floor El. *376* Room, Area *280*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-054

Equipment ID No. *VSF-1C* Equip. Class *10 – Air Handlers*

Equipment Description *RX/BLD COOLER FAN ASSEMBLY*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-054

Equipment ID No. *VSF-1C* Equip. Class *10 – Air Handlers*

Equipment Description *RX/BLD COOLER FAN ASSEMBLY*

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: _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-054**

Equipment ID No. *VSF-1C* Equip. Class *10 – Air Handlers*

Equipment Description *RX/BLD COOLER FAN ASSEMBLY*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-054

Equipment ID No. *VSF-1C* Equip. Class *10 – Air Handlers*

Equipment Description *RX/BLD COOLER FAN ASSEMBLY*

Note:	**Note:**

Sheet 1 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. *VCC-2D* Equip. Class[1] *10 – Air Handlers*

Equipment Description *RB SERVICE WATER COOLER COIL*

Location: Bldg. *RB* Floor El. *376* Room, Area *290*

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.

Sheet 2 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. *VCC-2D* Equip. Class *10 – Air Handlers*

Equipment Description *RB SERVICE WATER COOLER COIL*

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☒

Sheet 3 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. *VCC-2D* Equip. Class *10 – Air Handlers*

Equipment Description *RB SERVICE WATER COOLER COIL*

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: _____

Sheet 4 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. *VCC-2D* Equip. Class *10 – Air Handlers*

Equipment Description *RB SERVICE WATER COOLER COIL*

Photographs

Note:	**Note:**

Sheet 5 of 5

Status: Y☐ N☒ U☐

Seismic Walkdown Checklist (SWC) SWEL1-055

Equipment ID No. *VCC-2D* Equip. Class *10 – Air Handlers*

Equipment Description *RB SERVICE WATER COOLER COIL*

Note:	**Note:**

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 056

Equipment ID No. *KMA-1* Equip. Class[1] *13 - Motor Generators*

Equipment Description *K-4A AIR START MOTOR*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   Item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   All three bolts anchoring the start motor to the skid were free of bent, broken, missing and loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   The anchorage had very mild surface oxidation, but is free of corrosion otherwise.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   The switch is anchored to a steel plate on the EDG skid. No cracks in the concrete around the skid were observed.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 056

Equipment ID No. *KMA-1* Equip. Class *13 - Motor Generators*

Equipment Description *K-4A AIR START 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☒
   This does not apply since this item is not part of the 50% requiring anchorage configuration.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All visible anchorage was free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets that could be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   The attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above evaluation, the start motor is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 056

Equipment ID No. *KMA-1* Equip. Class *13 - Motor Generators*

Equipment Description *K-4A AIR START 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

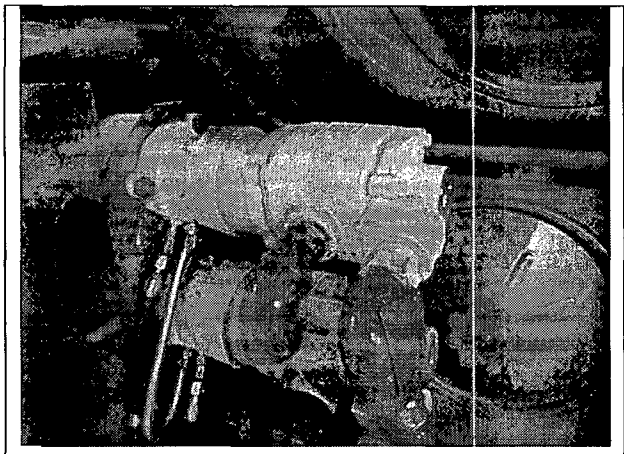
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 056**

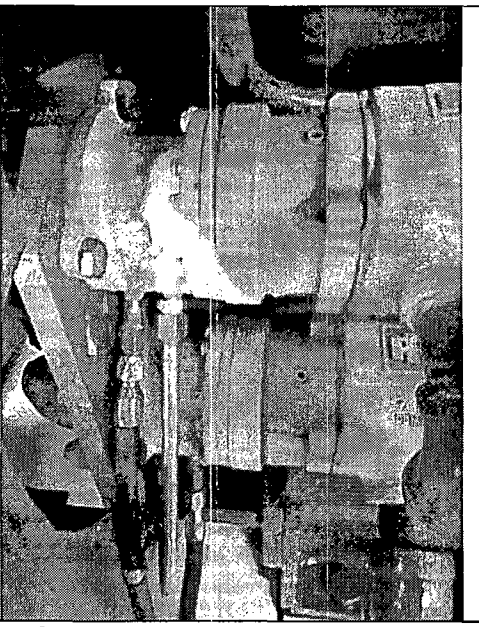
Equipment ID No. *KMA-1* Equip. Class *13 - Motor Generators*

Equipment Description *K-4A AIR START MOTOR*

Photographs



Note: *The upper yellow component shown above is the start motor, KMA-1.*



Note: *Two of the three anchor bolts are shown mounted to the steel plate on the skid.*

Sheet 5 of 5

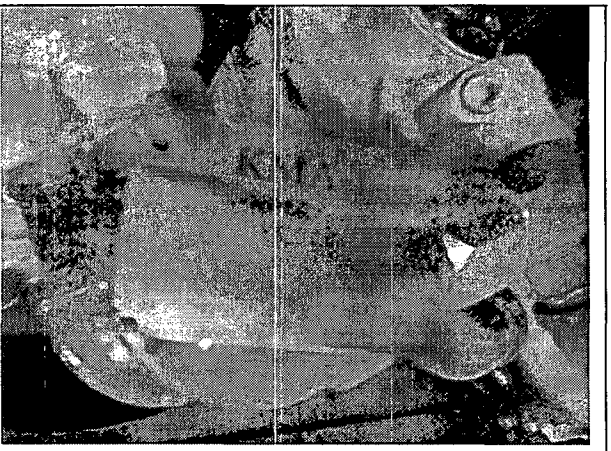
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 056

Equipment ID No. *KMA-1* Equip. Class *13 - Motor Generators*

Equipment Description *K-4A AIR START MOTOR*

Note: *The nuts for the three bolts anchoring KMA-1 are shown on the back side of the plate on the skid.*



Note: *View of the equipment ID tag identifying the component.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 057

Equipment ID No. *TV-7901B* Equip. Class[1] *13 - Motor Generators*

Equipment Description *EDG #1 VEF-24B N. ROOM DAMPER*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☐
   Anchorage configuration verification is required for this component.

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

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

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 057

Equipment ID No. *TV-7901B* Equip. Class *13 - Motor Generators*

Equipment Description *EDG #1 VEF-24B N. ROOM 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☐
   The anchorage configuration is consistent with CALC-94-SQ-1001-05, page 39. The damper motor is attached to a bracket with four screws, and the bracket is attached to the wall with four bolts.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All visible anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets that could be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no masonry block walls or ceiling tiles in the room. There are no lights in the vicinity of the damper motor, and thus do not present an interaction effect.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   The attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above evaluation, the room damper is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 057

Equipment ID No. *TV-7901B* Equip. Class *13 - Motor Generators*

Equipment Description *EDG #1 VEF-24B N. ROOM 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

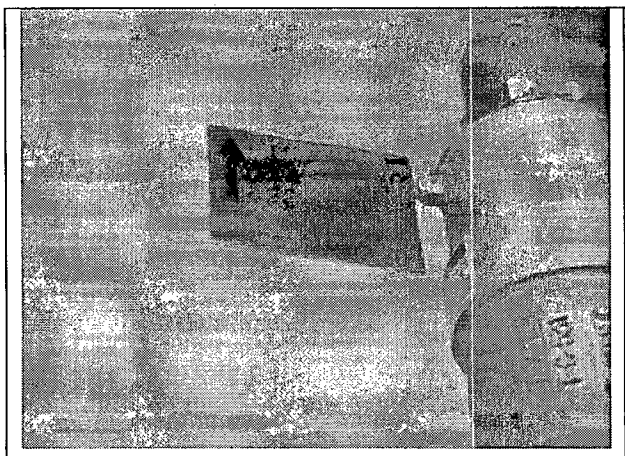
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 057**

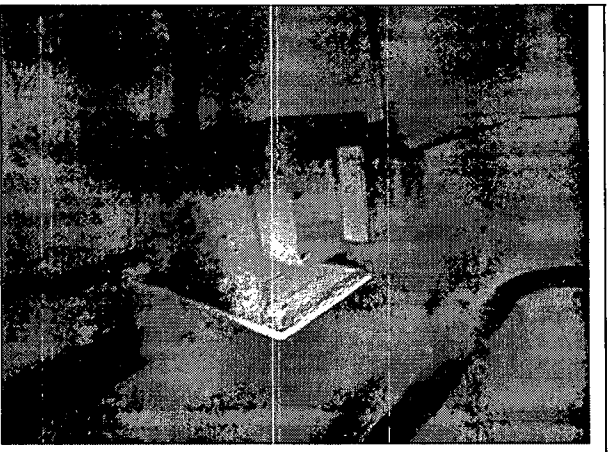
Equipment ID No. *TV-7901B* Equip. Class *13 - Motor Generators*

Equipment Description *EDG #1 VEF-24B N. ROOM DAMPER*

Photographs



Note: *Equipment ID tag on the wall identifies that the damper motor is located near the ceiling, above the nameplate.*



Note: *General view of the damper motor located two feet from the ceiling/moveable louvers.*

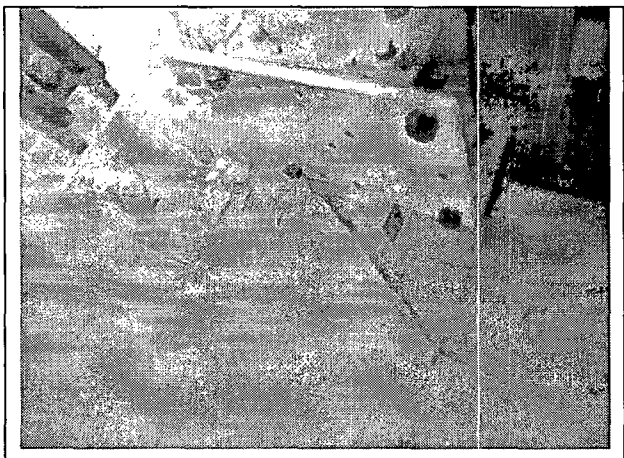
Sheet 5 of 5

Status: Y☒ N☐ U☐

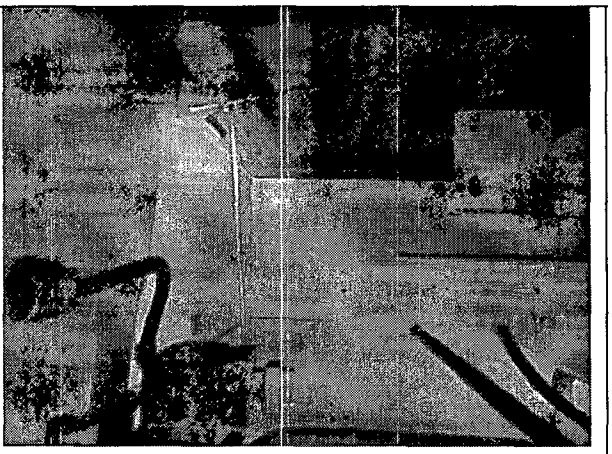
Seismic Walkdown Checklist (SWC) **SWEL1- 057**

Equipment ID No. *TV-7901B* Equip. Class *13 - Motor Generators*

Equipment Description *EDG #1 VEF-24B N. ROOM DAMPER*



Note: *View of the bottom of the bracket used to anchor the damper motor. The four dark-colored bolts are mounted to the damper motor, and the four white bolts anchor the bracket into the concrete wall.*



Note: *The moveable louver is visible in the top of the picture. The rod seen is the coupling between the damper motor and the louver.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-058

Equipment ID No. *RS-2* Equip. Class[1] *14 - Distribution Panels and Automatic-Transfer Switches*

Equipment Description *120 VAC DISTRIBUTION PNL RS2*

Location: Bldg. *RAB* Floor El. *386* Room, Area *129*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent, broken, missing or loose hardware was observed.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-058

Equipment ID No. *RS-2* Equip. Class[2] *14 - Distribution Panels and Automatic-Transfer Switches*

Equipment Description *120 VAC DISTRIBUTION PNL RS2*

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 is not visible without removing the panel from the wall. CALC-94-SQ-1001-14, page 41 shows the anchorage pattern for the panel, but it was not readily visible for inspection.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets that could be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Masonry block walls in the room are seismically qualified, and painted with a qualification number. Ceiling tiles and lights are all in good condition, and are adequately supported.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   The attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above evaluation, the panel is free of potentially adverse seismic interaciton effects.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-058

Equipment ID No. *RS-2* Equip. Class[3] *14 - Distribution Panels and Automatic-Transfer Switches*

Equipment Description *120 VAC DISTRIBUTION PNL RS2*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Roy Berryman* Date: *10/4/2012*

Eric Dilbone *10/4/2012*

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

Sheet 4 of 5

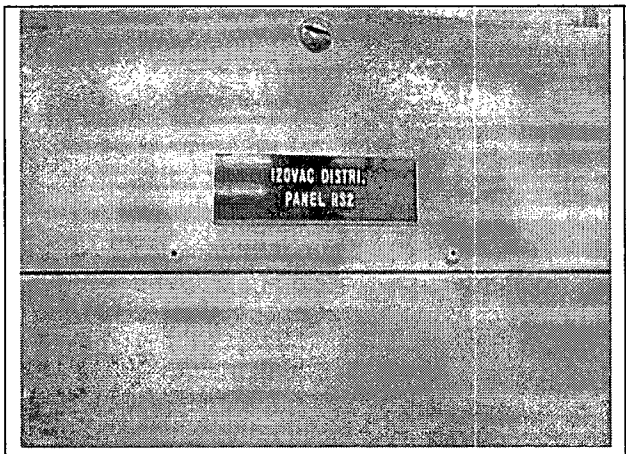
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-058**

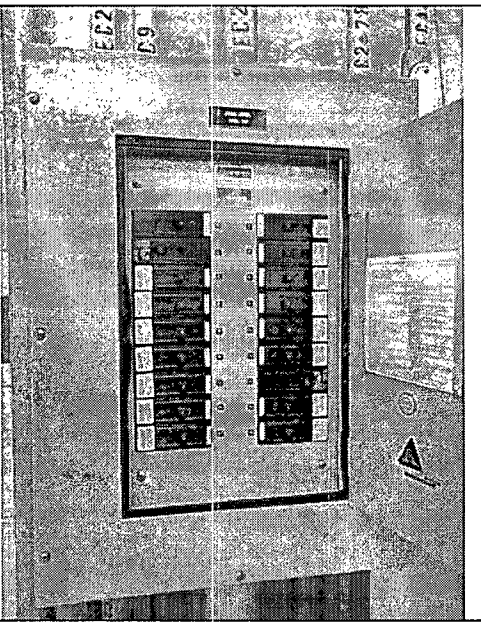
Equipment ID No. *RS-2* Equip. Class[4] *14 - Distribution Panels and Automatic-Transfer Switches*

Equipment Description *120 VAC DISTRIBUTION PNL RS2*

Photographs



Note: *Equipment ID tag identifying RS-2.*



Note: *View inside the door of RS-2.*

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

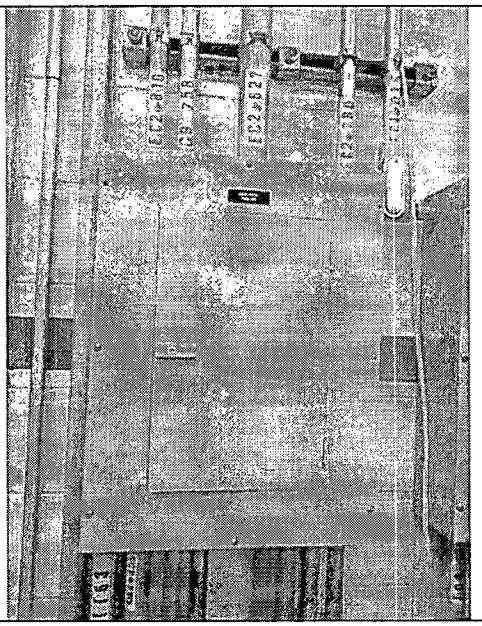
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-058

Equipment ID No. *RS-2* Equip. Class[5] *14 - Distribution Panels and Automatic-Transfer Switches*

Equipment Description *120 VAC DISTRIBUTION PNL RS2*



Note: *Front view of cabinet RS-2 with the panel door closed.*

Note: *View from above panel RS-2. The expansion anchors are not visible since the panel is mounted flush against the wall.*

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

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 059

Equipment ID No. *RA-2* Equip. Class[1] *14 – Distribution Panels and Automatic Transfer Switches*

Equipment Description *125 VDC DISTRIBUTION PANEL*

Location: Bldg. *RAB* Floor El. *372* Room, Area *95*

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☒
   The panel is mounted flush on the wall. Front of panel was opened. Anchorage was observed from the side.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent, broken, missing or loose hardware was observed.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

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

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 059

Equipment ID No. *RA-2* Equip. Class *14 – Distribution Panels and Automatic Transfer Switches*

Equipment Description *125 VDC 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☒
   Item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   The wall upon which the panel is mounted is not cracked, nor were any other potentially adverse seismic conditions observed.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets that could be impacted by nearby equipment or structures. Any potential soft targets are contained in the panel body.

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

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

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-059

Equipment ID No. *RA-2* Equip. Class *14 – Distribution Panels and Automatic Transfer Switches*

Equipment Description *125 VDC 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 059

Equipment ID No. *RA-2* Equip. Class *14 – Distribution Panels and Automatic Transfer Switches*

Equipment Description *125 VDC DISTRIBUTION PANEL*

Photographs

Note: *Equipment ID tag identifying RA-2.*

Note: *General view showing the panel mounted flush again the wall.*

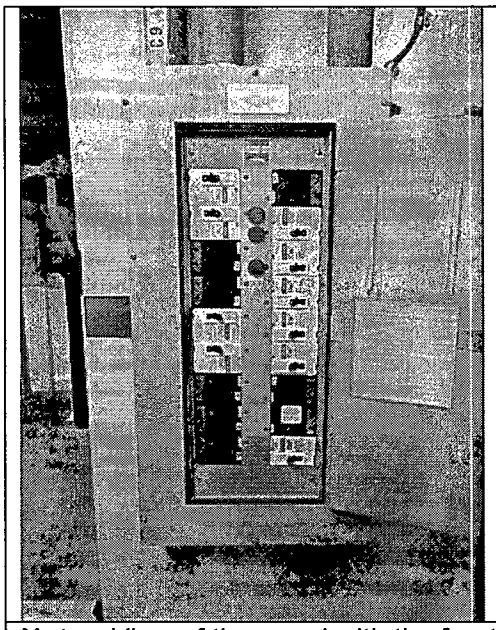
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 059

Equipment ID No. *RA-2* Equip. Class *14 – Distribution Panels and Automatic Transfer Switches*

Equipment Description *125 VDC DISTRIBUTION PANEL*



Note: *View of the panel with the front door open.*

Note:

Sheet 1 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-060

Equipment ID No. *D-07* Equip. Class[1] *15 – Battery Racks*

Equipment Description *125V DC STATION BATTERY BANK TO BUS D01*

Location: Bldg. *RAB* Floor El. *372* Room, Area *110*

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☒
   This item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent, broken or loose hardware was observed.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Anchorage at base of frame consists of 4 bolts at each row of supports and was generally free of cracks in the concrete; however a minor surface crack in the grout was observed at one bolt location.

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

Sheet 2 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 060

Equipment ID No. *D-07* Equip. Class *15 – Battery Racks*

Equipment Description *125V DC STATION BATTERY BANK TO BUS D01*

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☒
   This item is not part of the 50%.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   No potentially adverse seismic conditions were observed.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no nearby equipment or structures.

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

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    No potentially adverse seismic interactions were observed.

Sheet 3 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 060

Equipment ID No. *D-07* Equip. Class *15 – Battery Racks*

Equipment Description *125V DC STATION BATTERY BANK TO BUS D01*

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☐

    No other adverse seismic conditions were observed.

Comments (Additional pages may be added as necessary)

Equipment anchorage in the battery room was found to be in good condition with no adverse conditions observed.

Evaluated by: *Daniel Andoh* Date: *10/10/2012*

Genaro Barragan Jr. *10/10/2012*

Sheet 4 of 6

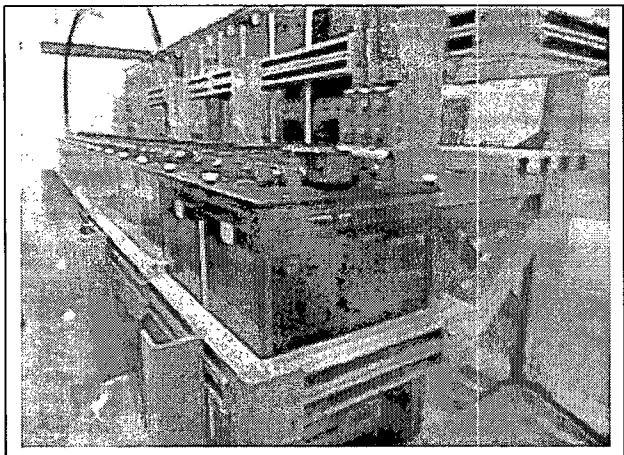
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 060**

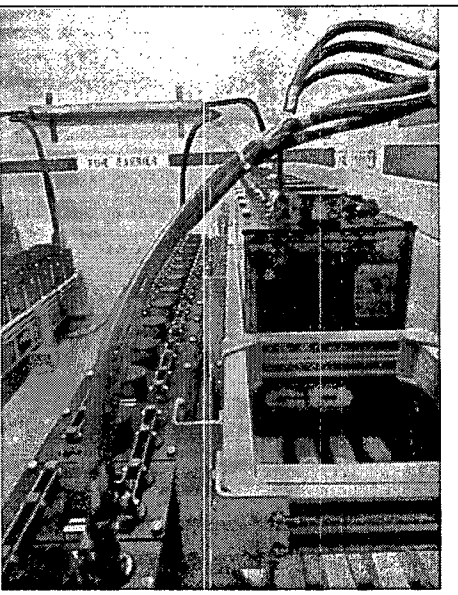
Equipment ID No. *D-07* Equip. Class *15 – Battery Racks*

Equipment Description *125V DC STATION BATTERY BANK TO BUS D01*

Photographs



Note: *Battery Rack*



Note: *Flexible Connections from Batteries*

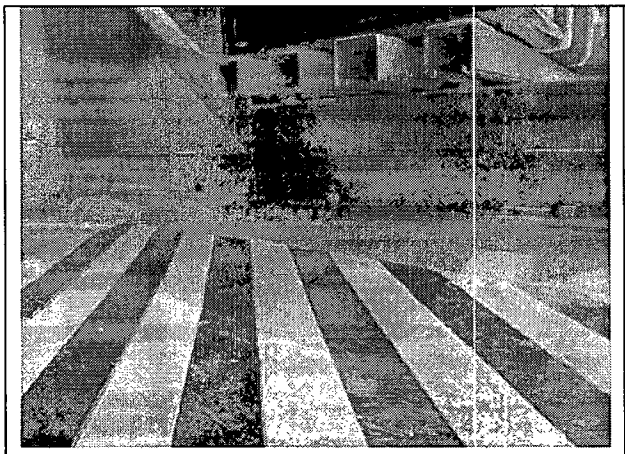
Sheet 5 of 6

Status: Y☒ N☐ U☐

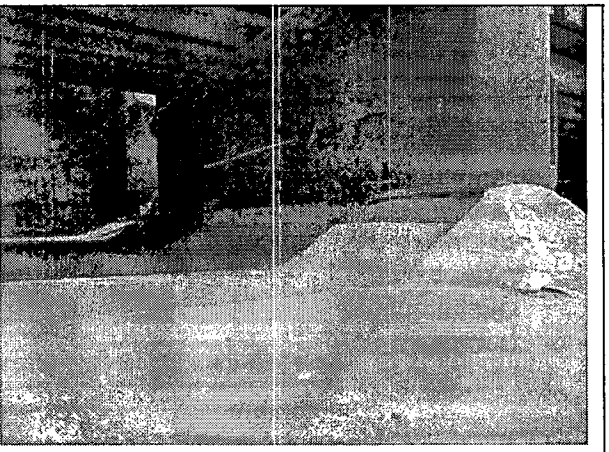
Seismic Walkdown Checklist (SWC) SWEL1- 060

Equipment ID No. *D-07* Equip. Class *15 – Battery Racks*

Equipment Description *125V DC STATION BATTERY BANK TO BUS D01*



Note: *Base of Battery Rack*



Note: *Base of Battery Rack showing grout and anchor bolts.*

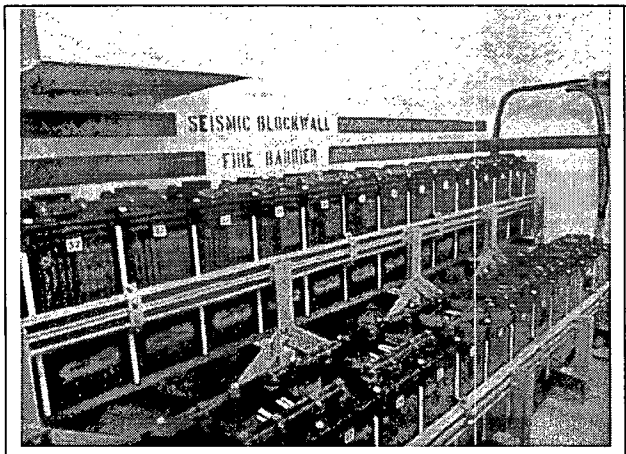
Sheet 6 of 6

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 060

Equipment ID No. *D-07* Equip. Class *15 – Battery Racks*

Equipment Description *125V DC STATION BATTERY BANK TO BUS D01*



Note: *Battery Rack with adjacent seismic wall.*

Note: *Frame of Battery Rack.*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-061

Equipment ID No. *Y-03* Equip. Class[1] *16 - Battery Chargers and Inverters*

Equipment Description *Y-03 INCOMING BREAKER (200 AMP)*

Location: Bldg. *RAB* Floor El. *372* Room, Area *100*

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☐
   Anchorage configuration verification is required for this component.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   No bent, broken or loose hardware was observed. Anchor bolts and welds were observed to be in good condition.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No corrosion was observed

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   No cracks in the concrete were observed in the vicinity of the anchor bolts.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-061

Equipment ID No. *Y-03* Equip. Class *16 - Battery Chargers and Inverters*

Equipment Description *Y-03 INCOMING BREAKER (200 AMP)*

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 was measured and observed to be consistent with CALC-94-SQ-1001-16, pages 29-40.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   The anchorage was observed to be free from adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☐ N☐ U☐ N/A☒
   No soft targets were observed.
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☐
   No adverse overhead conditions were observed.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines are rigid pipes, but were in good condition.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    No potentially adverse seismic interaction effects were observed.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-061

Equipment ID No. *Y-03* Equip. Class *16 - Battery Chargers and Inverters*

Equipment Description *Y-03 INCOMING BREAKER (200 AMP)*

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☐

    No other adverse seismic interactions were observed.

Comments (Additional pages may be added as necessary)

The anchorage conditions were clean and observed to be in conformance with plant documentation in CALC-94-SQ-1001-16. No adverse seismic conditions which could impact equipment or anchorage were observed.

Evaluated by: *Daniel Andoh* Date: *10/11/2012*

Genaro Barragan Jr. *10/11/2012*

Sheet 4 of 5

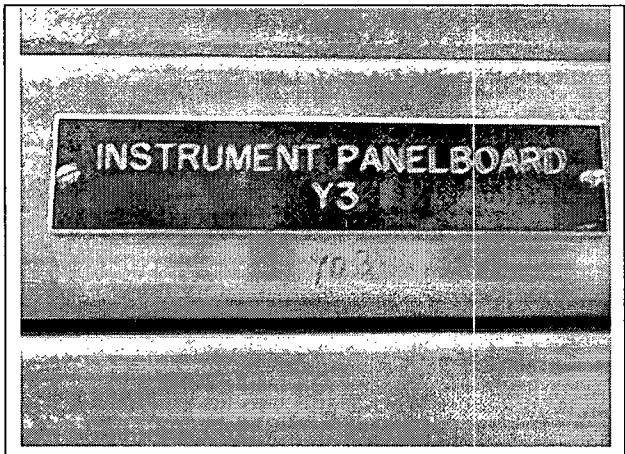
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1-061**

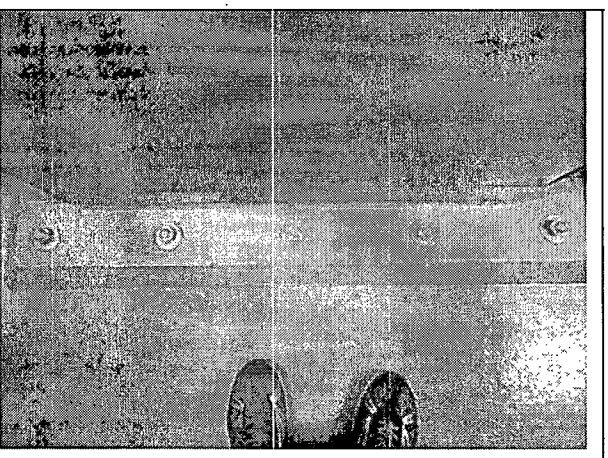
Equipment ID No. *Y-03* Equip. Class *16 - Battery Chargers and Inverters*

Equipment Description *Y-03 INCOMING BREAKER (200 AMP)*

Photographs



Note: *Equipment Tag*



Note: *Anchor Bolts at Base*

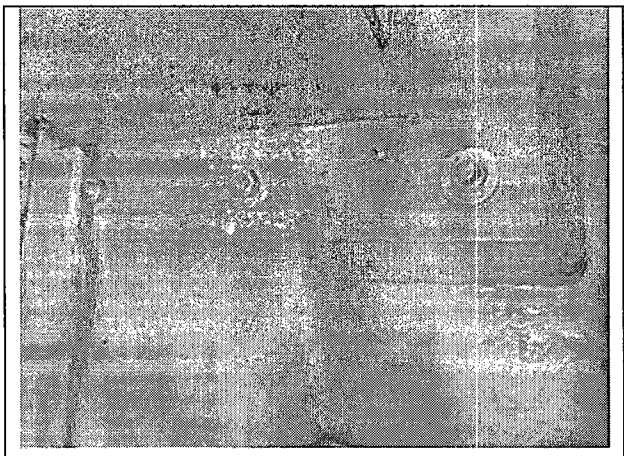
Sheet 5 of 5

Status: Y☒ N☐ U☐

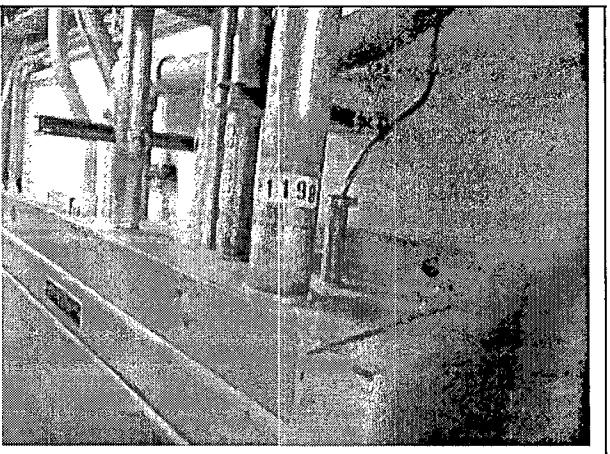
Seismic Walkdown Checklist (SWC) SWEL1-061

Equipment ID No. *Y-03* Equip. Class *16 - Battery Chargers and Inverters*

Equipment Description *Y-03 INCOMING BREAKER (200 AMP)*



Note: *Anchor Bolts at Base*



Note: *Conduits above equipment*

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 062

Equipment ID No. *F-50A* Equip. Class[1] *17 - Engine Generators*

Equipment Description *DG1 FUEL PUMP SUCTION STRAINER*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   Item is not part of the 50%.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y☒ N☐ U☐ N/A☐
   The bolts anchoring the strainer to the EDG skid are free of bent, broken, missing and loose hardware.

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☐ N☐ U☐ N/A☒
   The strainer is anchored to a steel frame on the EDG ski. No cracks around the skid were observed.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 062

Equipment ID No. *F-50A* Equip. Class *17 - Engine Generators*

Equipment Description *DG1 FUEL PUMP SUCTION 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☒
   This does not apply since this item is not part of the 50% requiring anchorage configuration.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   All visible anchorage was free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets that could be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no masonry block walls or ceiling tiles in the room. The lights are in good condition, and do not present an interaction effect.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   The attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above evaluation, the strainer is free of potentially adverse seismic interaction effects.

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 062

Equipment ID No. *F-50A* Equip. Class *17 - Engine Generators*

Equipment Description *DG1 FUEL PUMP SUCTION 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

Sheet 4 of 5

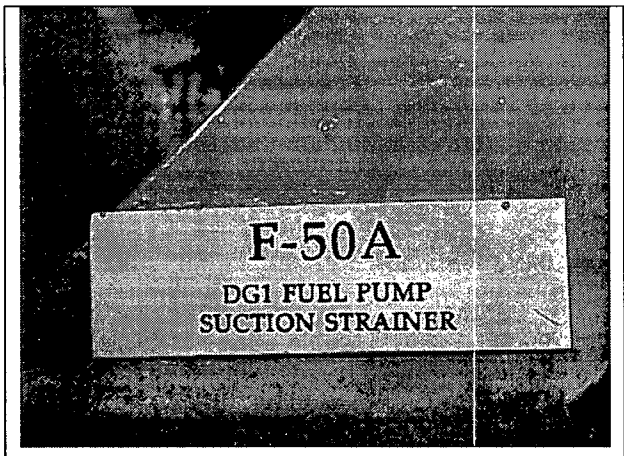
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) **SWEL1- 062**

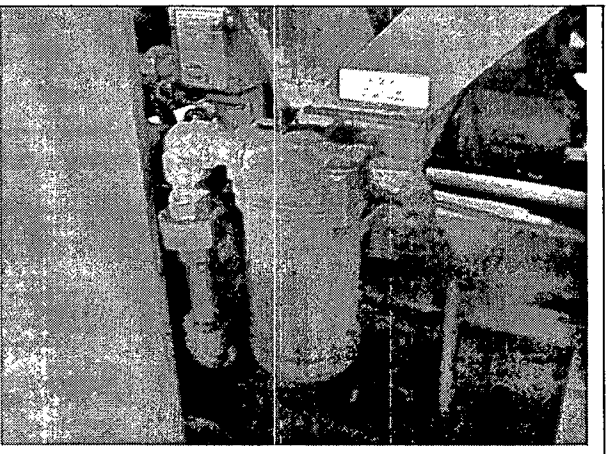
Equipment ID No. *F-50A* Equip. Class *17 - Engine Generators*

Equipment Description *DG1 FUEL PUMP SUCTION STRAINER*

Photographs



Note: *Equipment ID tag identifying the component.*



Note: *General view of the strainer mounted to the steel frame on the EDG skid.*

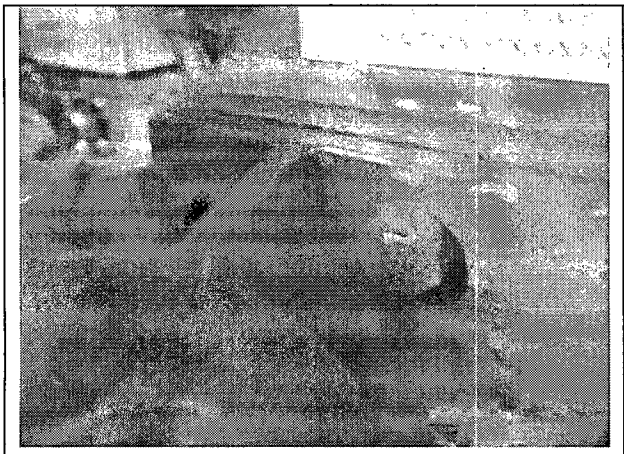
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 062

Equipment ID No. *F-50A* Equip. Class *17 - Engine Generators*

Equipment Description *DG1 FUEL PUMP SUCTION STRAINER*



Note: *Close-up view of the anchor bolts mounting the strainer to the steel frame.*

Note:

Sheet 1 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 063

Equipment ID No. *M-227A* Equip. Class[1] *17 - Engine Generators*

Equipment Description *DG1 CRANKCASE EJECTOR*

Location: Bldg. *RAB* Floor El. *369* Room, Area *87*

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☒
   Anchorage configuration verification is not required for this component.

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   The anchorage is free of corrosion. The anchor bolts are painted blue.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   This component is anchored to the EDG skid. No cracks in concrete were observed around the skid.

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

Sheet 2 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 063

Equipment ID No. *M-227A* Equip. Class[2] *17 - Engine Generators*

Equipment Description *DG1 CRANKCASE EJECTOR*

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 configuration verification is not required for this component, so this is not applicable.
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y☒ N☐ U☐
   Based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y☒ N☐ U☐ N/A☐
   There are no soft targets to be impacted by nearby equipment or structures.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   There are no potential interactions with overhead equipment, lighting or masonry block walls.
9. Do attached lines have adequate flexibility to avoid damage? Y☒ N☐ U☐ N/A☐
   Attached lines have adequate flexibility.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y☒ N☐ U☐
    Based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

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

Sheet 3 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 063

Equipment ID No. *M-227A* Equip. Class[3] *17 - Engine Generators*

Equipment Description *DG1 CRANKCASE EJECTOR*

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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions were found.

Comments (Additional pages may be added as necessary)

Evaluated by: *Daniel Parker* Date: *10/11/2012*

Eric Dilbone *10/11/2012*

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

Sheet 4 of 5

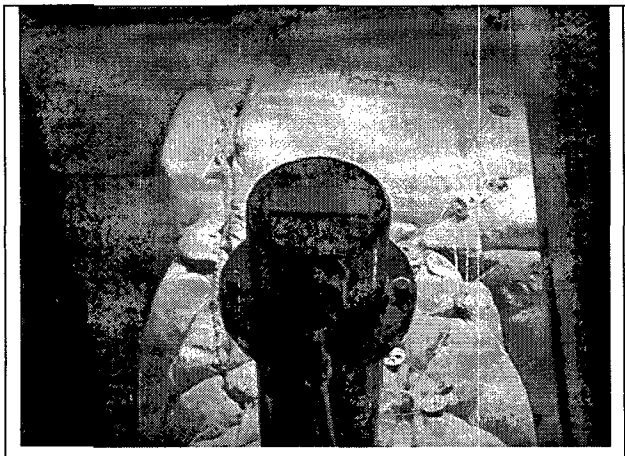
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 063

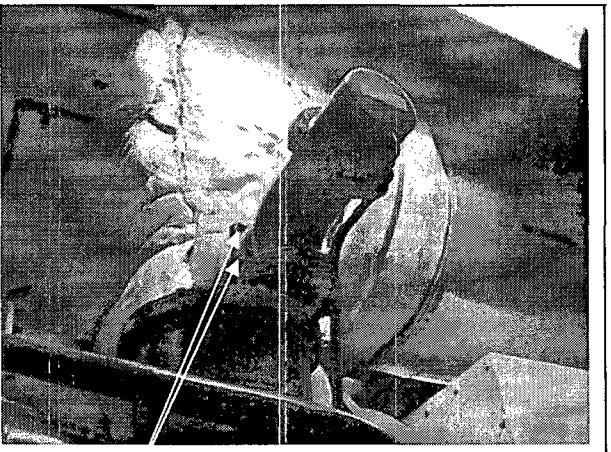
Equipment ID No. *M-227A* Equip. Class[4] *17 - Engine Generators*

Equipment Description *DG1 CRANKCASE EJECTOR*

Photographs



Note: *View of equipment ID tag identifying the component.*



Anchor bolts

Note: *View from below the component. Two anchor bolts are visible in this view.*

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

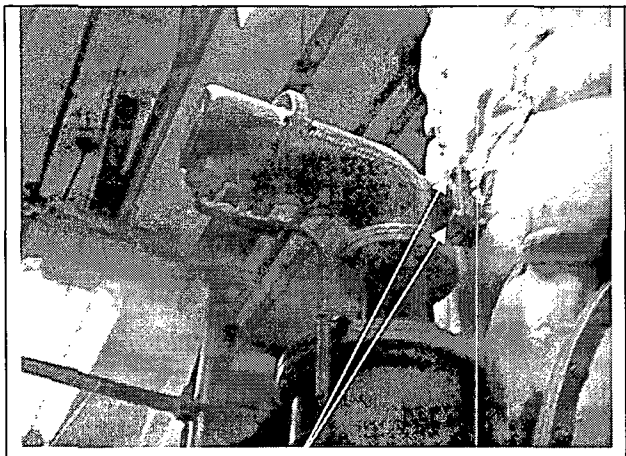
Sheet 5 of 5

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1- 063

Equipment ID No. *M-227A* Equip. Class[5] *17 - Engine Generators*

Equipment Description *DG1 CRANKCASE EJECTOR*



Anchor bolts

Note: *Side view of the component. Two anchor bolts are visible from this view.*

Note:

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

Sheet 1 of 4

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-064

Equipment ID No. *F-50B* Equip. Class[1] *17 – Engine Generators*

Equipment Description *FUEL PUMP SINLEX STRAINER*

Location: Bldg. *RAB* Floor El. *369* Room, Area *86*

Manufacturer, Model, Etc. (optional but recommended) *Electro-Motive*

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☐
   50% anchorage configuration verification required.

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y☒ N☐ U☐ N/A☐
   No oxidation is observed

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y☒ N☐ U☐ N/A☐
   Installed on Diesel Generator Skid. No cracks in concrete around skid.

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

Sheet 2 of 4

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-064

Equipment ID No. *F-50B* Equip. Class[2] *17 – Engine Generators*

Equipment Description *FUEL PUMP SINLEX 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☐
   Anchorage is consistent with calculation 6600-M12AC-117-1.

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

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y☒ N☐ U☐ N/A☐
   Overhead equipment, distribution systems, and lighting are not likely to collapse onto the equipment. There are no ceiling tiles overhead.

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

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

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

Sheet 3 of 4

Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-064

Equipment ID No. *F-50B* Equip. Class[3] *17 – Engine Generators*

Equipment Description *FUEL PUMP SINLEX 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☐

    It was looked for, and no other seismic conditions that could adversely affect the safety functions of the equipment were found.

Comments (Additional pages may be added as necessary)

The Fuel Pump Filter is a critical component of the diesel engine. Every mounting bolt was observed to be in place. The entire engine appeared clean and well maintained. There were no visible leaks or signs of previous leaks at any location were accessory components were bolted to the main engine block.

The fuel pump strainer is bolted at the accessory end of the diesel engine. There were no significant structures or equipment that could have any significant interaction with the filter.

Evaluated by: *Eric Dilbone* Date: *10/2/2012*

Daniel Parker *10/2/2012*

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

Sheet 4 of 4

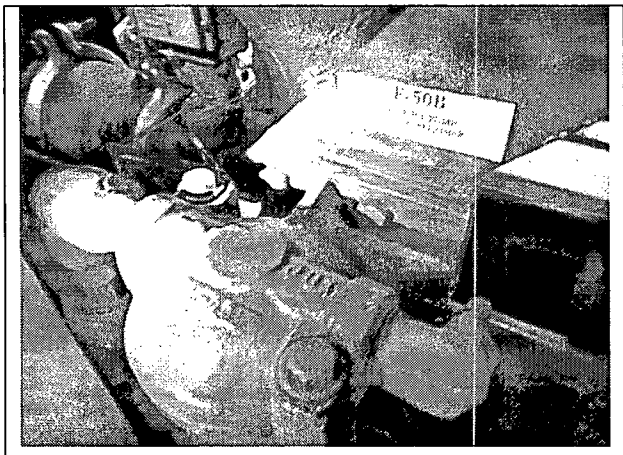
Status: Y☒ N☐ U☐

Seismic Walkdown Checklist (SWC) SWEL1-064

Equipment ID No. *F-50B* Equip. Class[4] *17 – Engine Generators*

Equipment Description *FUEL PUMP SINLEX STRAINER*

Photographs



Note: *Component Tag*

Note: *Component Overview*

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