

ATTACHMENT 1

GNRO-2012/00141

GRAND GULF NUCLEAR STATION (GGNS)

SEISMIC WALKDOWN REPORT



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**Grand Gulf Nuclear Station Seismic Walkdown Report
for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic**

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Grand Gulf Nuclear Station 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] requesting 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 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. Entergy at Grand Gulf Nuclear Station, Unit 1 (GGNS) 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.

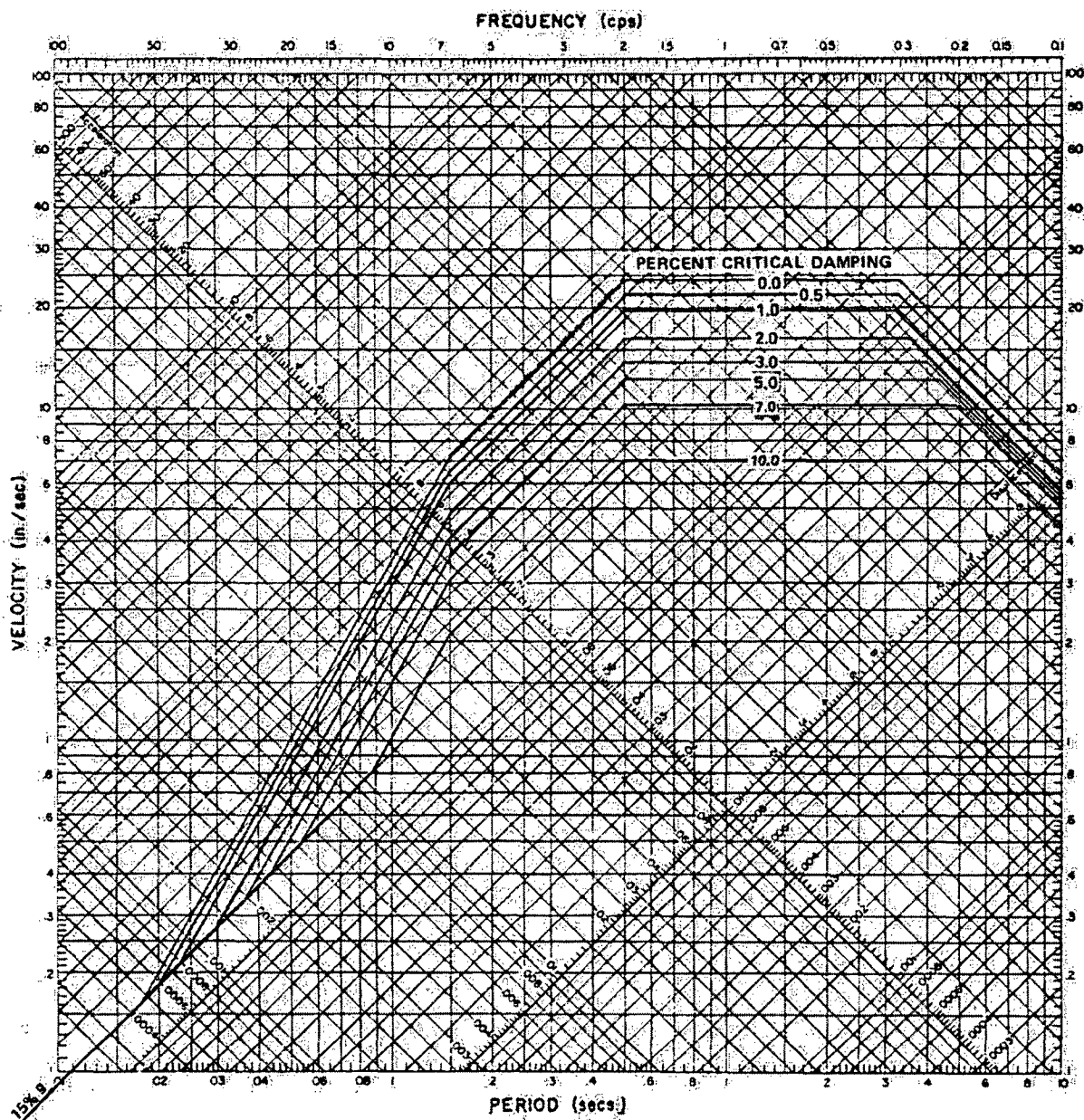
The objective of this report is to document the results of the seismic walkdown effort undertaken for resolution of NTTF Recommendation 2.3: Seismic in accordance with the Guidance, and provide the information necessary for responding to Enclosure 3 to the 50.54(f) Letter.

2.0 SEISMIC LICENSING BASIS SUMMARY

Grand Gulf Nuclear Station, Unit 1 (GGNS) is a boiling water reactor (BWR) located in Port Gibson, MS. The Nuclear Steam Supply System (NSSS) was originally designed by GE. Grand Gulf Nuclear Station, Unit 1 (GGNS) began commercial operation in July 1 of 1985, and is currently rated at 1500 MWe power [Ref. 3]. This section summarizes the seismic licensing basis of structures, systems and components (SSCs) at Grand Gulf Nuclear Station, Unit 1 (GGNS) which bound the context of the NTTF Recommendation 2.3: Seismic Walkdown program.

2.1 SAFE SHUTDOWN EARTHQUAKE (SSE)

The safe shutdown earthquake for the Grand Gulf Nuclear Station, Unit 1 (GGNS) site is described by a modified Newmark's curve spectra anchored at 0.15g peak horizontal ground acceleration and 0.1g peak vertical ground acceleration [Ref. 3]. UFSAR Figure 3.7-1, below, shows the design spectra for damping values ranging from 0 to 10 percent of critical for a peak ground acceleration of 0.15g (SSE).



<p>MISSISSIPPI POWER & LIGHT COMPANY GRAND GULF NUCLEAR STATION UNITS 1 & 2 UPDATED FINAL SAFETY ANALYSIS REPORT</p>	<p>DESIGN SPECTRA FOR SSE FIGURE 3.7-1</p>
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2.2 DESIGN CODES, STANDARDS, AND METHODS

2.2.1 Structures

The criteria governing the design and evaluation of existing and/or new structures and facilities at GGNS Unit 1 are contained in "Grand Gulf Nuclear Station Civil Structural Design Criteria Manual" by Nuclear Plant Engineering [Ref. 6]. Included in this document are design criteria for the GGNS Containment and other Seismic Category I structures.

Loads and loading combinations used for the design of the Containment and other Seismic Category I structures are in accordance with these criteria. The loads and loading combinations described below were used in the design and analysis of the overall structure, as well as the design and analysis of components and localized areas.

The following Bechtel Topical Reports are used in the design of the Containment and all other Seismic Category I structures:

- BC-TOP-3A Tornado and Extreme Wind Design Criteria for Nuclear Power Plants
- BC-TOP-4 Seismic Analysis of Structures and Equipment for Nuclear Power Plants
- BC-TOP-9A Design of Structures for Missile Impact
- BN-TOP-2 Design for Pipe Break Effects

For loads encountered during normal plant operation, the Containment and other Seismic Category I structures are, designed in accordance with referenced codes and standards; certain modifications and supplements to suit conditions unique to nuclear power plants are noted in the allowable stresses and load combinations.

When subjected to various combinations of gravity, thermal, seismic, and accident loads, the Containment and other Seismic Category I structures proportioned to maintain elastic behavior. Elastic behavior is considered as limited by the yield stress of the effective load-carrying structural steel materials or ultimate capacity of concrete elements. Yield stress for steel (including reinforcing steel) is the guaranteed minimum given in the appropriate ASTM specification. Ultimate capacity is defined by ACI-318-71, Chapter 9 as stated in Ref. 3.

Steel portions of the Containment Structure and Interior performing pressure vessel functions consist of the refueling head, locks, and hatches. These components are designed in accordance with Specification 9645-C-153.0 as stated in Ref. 3.

The Concrete Containment design is in accordance with ACI-318 and is guided by Report 69-2 by ACI Committee 349-72 as stated in Ref. 3. Loading combinations included 19 load combinations for Normal Operating Conditions, one combination for Structural Pressure Test Conditions, 23 combinations for Design Accident Conditions, and 18 combinations for Extreme Environmental Conditions.

The Concrete Drywell design is in accordance with ACI-318. Loading combinations included 18 combinations for Normal Operating Conditions, one combination for Structural Pressure Test Conditions, 22 combinations for Design Accident Conditions, one for post-LOCA flooding, and 19 combinations for Extreme Environmental Conditions.

The interior concrete floors and walls of the Concrete Containment are in accordance with ACI-318. Loading combinations included five combinations for Normal Operating Conditions, five combinations for Design Accident Conditions and five combinations for Extreme Environmental Conditions.

All other concrete Seismic Category I Structures are in accordance with ACI-318. Loading combinations included five combinations for Normal Operating Conditions and four combinations for Design Accident Conditions and Extreme Environmental Conditions.

Other steel Seismic Category I Structures have allowable stresses based on AISC Specification allowables. Loading combinations included four combinations for Normal Operating Conditions and four combinations for Design Accident Conditions and Extreme Environmental Conditions.

2.2.2 Systems and Components

Seismic Category I systems and components are designed to remain functional in the event of a Safe Shutdown Earthquake (SSE). Stresses in Seismic Category I systems and components are designed to be well within the elastic limits under the effects of the Operating Basis Earthquake (OBE). "Well within elastic limits" is interpreted to mean within normal allowable stresses. These structures, systems, and components are those necessary to assure:

- a. The integrity of the reactor coolant pressure boundary
- b. The capability to shut down the reactor and maintain it in a safe shutdown condition
- c. The capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures comparable to the guideline exposures of 10 CFR Part 100

When a system as a whole is referred to as Seismic Category I, portions not associated with loss of function of the system may be designated as non-Category I.

IEEE Standard 344-1975, IEEE Recommended Practice for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations, is used in qualifying Seismic Category I electrical and mechanical equipment [Ref. 3].

Piping has been fabricated, inspected, and installed in accordance with the ASME Boiler and Pressure Vessel Code, Section III, "Nuclear Vessels," and has been designed in accordance with ANSI B31.1 Power Piping Code [Ref. 3].

3.0 SEISMIC WALKDOWN PROGRAM IMPLEMENTATION APPROACH

Entergy Grand Gulf Nuclear Station, Unit 1 (GGNS) has committed to conduct and document seismic walkdowns for resolution of NTTF Recommendation 2.3: Seismic 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 structures, systems and components (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 Grand Gulf Nuclear Station, Unit 1 (GGNS). 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 Recommendation 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. For organizational purposes, personnel are presented as being primarily involved with either the walkdown effort or the peer review. Training certificates of those qualified as Seismic Walkdown Engineers are included in Attachment H.

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

Name	Equipment Selection Personnel	Seismic Walkdown Engineer	Licensing Basis Reviewer ³	IPEEE Reviewer
Mark Locke (Entergy Corporation GGNS)	X			
Terry Holcombe (Entergy Corporation GGNS)	X ¹			
Fred Hopkins (Entergy Corporation GGNS)	X	X		
Tori Robinson (Entergy Corporation GGNS)	X	X ²		
Kyong Su (Jason) Pak (ENERCON)		X		
Chase Wharton (ENERCON)		X		X

Notes:

1. Plant operations representative
2. Designated lead SWE
3. No licensing basis evaluations were performed

Tori L. Robinson

Mrs. Robinson is an Engineer at Grand Gulf Nuclear Station in Port Gibson, MS. She is assigned to the Civil/Mechanical group in Design Engineering. Mrs. Robinson has Bachelor of Science Degrees in Chemistry from Alcorn State University and Civil Engineering from Prairie View A&M University. She has successfully completed EPRI NTTF Recommendation 2.3: Seismic training on the application of EPRI Report 1025286. Mrs. Robinson has more than 13 years of experience in the field of Civil Engineering with more than 4 years of experience in the nuclear industry.

Mrs. Robinson's work experience in the field of nuclear includes the development and updating of calculations, engineering reports, drawings, and engineering design packages. She has performed or assisted on various site walkdowns for both safety related and non-safety related structures and components; for example, PMP door seal inspections, 100 year ditch inspection, and Natural Draft Cooling Tower and Auxiliary Cooling Tower Inspections. In addition, Mrs. Robinson provides seismic evaluations for site modifications and updates the GGNS Seismic Qualification Central File.

Fredrick Hopkins

Mr. Hopkins is an Engineer at Grand Gulf Nuclear Station in Port Gibson, MS. He is assigned to the Civil/Mechanical group in Design Engineering. Mr. Hopkins has a Bachelor of Science Degree in Civil Engineering from Jackson State University. He has successfully completed EPRI NTTF Recommendation 2.3: Seismic training on the application of EPRI Report 1025286. Mr. Hopkins has more than 5 years of experience in the field of Civil Engineering with more than 4 years of experience in the nuclear industry.

Mr. Hopkins's nuclear experience includes the development and updating of calculations, engineering reports, drawings, and engineering design packages. He has performed or assisted on various site walkdowns for both safety related and non-safety related structures and components; for example, PMP door seal inspections, Inspection of Maintenance Rule Structures, 100 year ditch inspection, and Natural Draft Cooling Tower and Auxiliary Cooling Tower Inspections.

Mark Locke

Mr. Locke is currently employed by Entergy Operations Inc. as a Sr. Lead Engineer. Mr. Locke has worked at Grand Gulf Nuclear Station for 27 years as an engineer and a project manager. Mr. Locke has a Bachelor of Science degree from Washington State University in Civil Engineering and is a Registered Professional Engineer in the State of Mississippi. Mr. Locke has over 32 years of experience in the Nuclear Industry in both construction and operation.

His work experience includes over 32 years of experience in the Seismic Qualification of equipment for Nuclear Power Plants. This experience includes performing evaluations of equipment, performing and witnessing seismic testing and performing qualification calculations. Mr. Locke's background is in Structural Analysis and has performed work on Suction Strainer design for BWR Mark 6 Containments, design of Independent Spent Fuel Storage Installations (ISFSI), Security Modifications for the Nuclear Plants, Mechanical Cooling Towers, Valve Components weak link calculations and many other various designs. Mr. Locke is a former Chairman of the EPRI/SQURTS Seismic Qualification Utility Group.

Terry Holcombe

Mr. Holcombe is a Shift Manager working in the outage group at Grand Gulf Nuclear Station and holds an active Senior Reactor Operator License. Mr. Holcombe completed a course of instruction in Nuclear Reactor Fundamentals and Reactor Start-Up Experience at the Center for Nuclear Studies, Memphis State University, Memphis, Tennessee. Mr. Holcombe has 32 years experience in Operations at Grand Gulf Nuclear Station.

His work experience related to this project includes time spent as Plant Operator, Reactor Operator, Shift Supervisor, Shift Manager, Procedure Writer, Procedure Group Supervisor, and has served as a team member on various project teams. He is also an active member of the GE BWR Owners Group Emergency Procedure Sub-committee and has experience with development of Emergency Operating Procedures.

Kyong S. (Jason) Pak

Mr. Pak is currently assigned as a Civil/Structural Engineering Supervisor in ENERCON's Kennesaw, GA office. Mr. Pak has a Bachelor of Science degree from University of Akron (Ohio) and Master of Science degree from Purdue University in Mechanical Engineering. Mr. Pak has over 10 years of experience in the nuclear industry and over 2 years of experience in fossil industry.

His work experience includes time spent as a civil/structural design engineer at a US Nuclear Power Plant. During this time, he prepared design change packages, performed structural/pipe stress analysis, and participated on site walkdowns/meetings. Mr. Pak brings experience in building evaluations, conduit and electrical component support evaluations, pipe/pipe support evaluation, haul path evaluations, and miscellaneous structural analysis. Mr. Pak has supported Independent Spent Fuel Storage Installation (ISFSI), Emergency Core Cooling System (ECCS) Suction Strainers, Security Upgrade, Extended Power Uprate (EPU), and many other projects. He was at Browns Ferry Nuclear Plant over a year, serving as a field walkdown engineer for small bore piping.

Chase R. Wharton

Mr. Wharton is assigned to the Civil/Structural Engineering Group in ENERCON's office in Kennesaw, GA. Mr. Wharton has a Bachelor of Science degree from California State University, Fresno and Master of Science degree from The University of Tennessee, Knoxville in Structural Engineering.

He has experience in the development of calculations, analyses, drawings, and nuclear engineering packages. He has worked on the modular chiller replacement project at Brunswick, as well as other miscellaneous projects. His work experience related to these projects includes: conduit and electrical component support evaluations, pipe/pipe support evaluation, haul path evaluations, and miscellaneous structural analysis. Mr. Wharton has significant experience in seismic and earthquake engineering. He has performed extensive research related to the response of structures to earthquake induced excitation.

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 4 individuals served as Seismic Walkdown Engineers – see Table 4-1.

4.3 LICENSING BASIS REVIEWERS

No licensing basis evaluations were performed. Therefore a total of 0 individuals served as Licensing Basis Reviewers – see Table 4-1.

4.4 IPEEE REVIEWERS

A total of 1 individual 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

Name	SWEL Peer Reviewer	Walkdown Peer Reviewer	Licensing Basis Peer Reviewer ³	Submittal Report Peer Reviewer
Doug Jones (Entergy Corporation)	X ²	X ²		X ^{1,2}
Robert Fuller (Entergy Corporation GGNS)	X			
Shawn McFarland (Structural Integrity Associates)		X		
Ben Kosbab (ENERCON)				X

Notes:

1. Peer Review Team Leader
2. Lead peer reviewer of particular activity
3. No licensing basis evaluations were performed

Doug Jones

Mr. Jones is a graduate of Rutgers University with a Bachelor of Science in Civil Engineering. He is also a graduate of Northeastern University with a Master of Science degree in Civil/Structural engineering and project management. Mr. Jones has 31 years experience in the nuclear industry. Of this time 11 years were spent in the design and construction of structures and 5 years dedicated to the development of the seismic qualification bases for Grand Gulf Nuclear Station including performance of analysis and testing. Mr. Jones completed 9 hours of post masters credit at Mississippi State University specializing in vibration analysis and structural dynamics. Mr. Jones is a licensed professional engineer in the state of Mississippi and a member of the American Society of Civil Engineers.

Mr. Jones has served as Civil Field Engineer, Civil Design Engineer, Civil Engineering Supervisor, Project Manager for major projects, Supervisor System Engineering, Manager Engineering Programs and Components, Manager System Engineering, Manager Design Engineering, and is currently Entergy Nuclear Chief Engineer.

Robert W. Fuller

Mr. Fuller is currently employed as a Senior Engineer in Civil/Mechanical Group in Design Engineering for Entergy Operations at Grand Gulf Nuclear Station. He has 28 years

experience in the Nuclear Industry as a mechanical engineer. He received a Bachelor of Science in Engineering from Mississippi State University. He received his Masters in Mechanical Engineering from Mississippi State University.

As a Senior Engineer, he has analyzed and developed computer models for systems using FORTRAN and C. His modeling experience includes the development of models for safety-related heat exchangers, Hardy Cross pipe flow analysis, and convection heat transfer. He has also used a commercial code called GOTHIC (Generation of Thermal Hydraulics in Containment).

Benjamin Kosbab, PhD

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, seismic fragility screening, 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 Recommendation 2.3: Seismic Walkdown Training in July, 2012.

Shawn McFarland

Mr. McFarland has a Bachelor of Science Degree in Civil Engineering from South Dakota School of Mines and Technology. He has successfully completed EPRI NTTF Recommendation 2.3: Seismic training on the application of EPRI Report 1025286. In addition to NTTF related training, Mr. McFarland has also completed the Seismic Qualification Utilities Group (SQUG) Seismic Walkdown Screening and Seismic Evaluation training course.

His work experience related to this project includes time spent as a civil/structural design engineer at Cooper. During this time he performed and reviewed seismic evaluations of components in support of plant modifications. His work also included performing operability evaluations of seismic capabilities of degraded SSCs. During his time at the utility, Mr. McFarland also acted as the sites SQUG representative. This responsibility included attending SQUG meetings and reviewing SQUG walkdown documentation as a part of plant modifications and operability evaluations.

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 at many plants. In this context, “vulnerabilities” refers to conditions found during the IPEEE program related to seismic anomalies, outliers, or other findings.

IPEEE Reviewers (see Section 4.0) reviewed the IPEEE final report [Ref. 7] and supporting documentation to identify items determined to present a seismic vulnerability by the IPEEE program. IPEEE Reviewers then reviewed additional plant documentation to identify the eventual resolutions to those seismic vulnerabilities not resolved via the completion of the IPEEE program.

The seismic vulnerabilities identified for Grand Gulf Nuclear Station, Unit 1 (GGNS) during the IPEEE program are reported in Attachment A. A total of 42 seismic vulnerabilities were identified by the Grand Gulf Nuclear Station, Unit 1 (GGNS) IPEEE program. For each identified seismic vulnerability, the table in 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 seismic vulnerability
- whether the configuration management program has maintained the IPEEE action (including procedural changes) such that the vulnerability continues to be addressed
- when the resolution actions were completed.

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 SWEL1 (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 Recommendation 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 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 to maintain containment integrity (i.e., supporting the five safety functions)
- SWEL 2 consists of items related to the spent fuel pool

The final SWEL is the combination of SWEL1 and SWEL2. 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 plant SSCs and reducing the number based on a series of screening criteria. The equipment coming out of Screen #3 and entering Screen #4 is defined as Base List 1. The 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 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 Grand Gulf Nuclear Station, Unit 1 (GGNS), 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.” As described in Section 3 of the Grand Gulf Nuclear Station, Unit 1 (GGNS) IPEEE report [Ref. 5], 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 72 hours following a SSE event. This equipment list of SSCs on the success paths is consistent with the requirements of Screens #1 through #3 of the Guidance. No major changes were made to the safety related systems such that the IPEEE equipment list would need to be updated. Therefore, the IPEEE equipment list of SSCs on the success paths is used as the NTF Recommendation 2.3: Seismic Walkdown Base List 1. Base List 1 is presented as Table 1 in Attachment B, and has 1079 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 of items on Base List 1 including representative items from some of the variations within each of 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 Section 4.0) developed SWEL 1 using an iterative process. The following paragraphs describe how the equipment selected for inclusion on the final SWEL 1 are representative with respect to each of the five sample selection attributes while also considering risk significance. In general, preference for inclusion on SWEL 1 was given to items that are accessible and have visible anchorage while still maintaining the sample selection attributes. SWEL 1 is presented as Table 2 in Attachment B, and has 93 total items.

Variety of Types of Systems

Items were selected from Base List 1 ensuring that each of the five safety functions was well represented. Additionally, components from a variety of frontline and support systems, as listed in Appendix E of the Guidance, were selected.

Major New and Replacement Equipment

With assistance from Plant Operations and Design Engineering, 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. A robust sampling of these items is represented on SWEL 1. New and replaced items are designated as such on SWEL 1 on Table 2 of Attachment B.

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 from each class was determined. Items were then selected from Base List 1 ensuring that each of

the equipment classes represented there was also represented on SWEL 1, in approximately the same ratios. Equipment listed on the IPEEE Report was grouped by equipment classification. Roughly 10% of each equipment classification in Base List 1 is represented on SWEL 1. Initially 10% of each equipment classification in Base List 1 was used to obtain a value of 100-115 pieces of equipment to be added to SWEL 1. Items were deleted due to non-visual anchorage configuration or insulation on valves. If an equipment classification had less than 10% of equipment in the category, minimum one piece of equipment was added to SWEL 1. The equipment class of each item on SWEL 1 is listed on Table 2 of Attachment B. Note that SWEL 1 does not include Class 2, 4, 11 or 13 components, because these are not represented on Base List 1.

Variety of Environments

Items were selected from Base List 1 located in a variety of buildings, rooms, and elevations. These item locations included environments that were having high temperature and/or elevated humidity and within containment. No items on Base List 1 were part of borated systems; therefore, no items that are part of borated systems were selected. The location and environment of each item on SWEL 1 is listed on Table 2 of Attachment B.

IPEEE Enhancements

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). Several of these items are represented on SWEL 1.

Risk Significance

Information from the plant Probabilistic Risk Analysis (PRA) model and the Maintenance Rule implementation documentation were used to determine whether items were risk significant. With assistance from Corporate PRA personnel, GGNS used Component Importance Ranking of GGNS Level-1 Model Revision 3 PSA Summary report [Ref. 8] to determine risk significance of equipment listed in the IPEEE Report. Where otherwise comparable items could be chosen relative to the sample selection attributes, the item with higher risk significance was 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 is 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 Section 4.0) reviewed plant design and licensing basis documentation and plant drawings for the SFP and its associated cooling system. Equipment considered for Base List 2 was obtained from the Seismic Qualification Central File.

Base List 2 is presented as Table 3 in Attachment B, and has 121 total items.

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. Consistent with the Guidance, the Equipment Selection Personnel (see Section 4.0) identified 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.

Review of engineering documents determined the lowest piping penetrations the SFP wall as a 20" diameter pipe with the bottom elevation of approximately 203'-3". With the top of the spent fuel at approximately 182'-2", there is a minimum coverage of greater than 20 feet with the potential failure of the 20" diameter pipe.

Because this review found no such SFP penetrations, there is no potential for rapid drain-down and no items were included on the rapid drain-down list to include 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. Due to the population of items on Base List 2 being much smaller than Base List 1, the sampling attributes are satisfied differently for SWEL 2 than for SWEL 1. The following paragraphs describe how the equipment selected from Base List 2 for inclusion on SWEL 2 are representative with respect to each of the four sample selection attributes. SWEL 2 is presented as Table 4 in Attachment B, and has 9 total items.

Variety of Types of Systems

All safety-related equipment associated with the SFP is part of the Fuel Pool Cooling and Cleanup (FPCCU) system. Therefore, this is the only system represented on SWEL 2. The safety-related function of the FPCCU system is to remove the decay heat from the fuel assemblies and maintain the upper containment pools (Separator Storage Area, Reactor

Well, Fuel Storage Pool and Dryer Storage Area, Transfer Pool) and the auxiliary building pools (Spent Fuel Pool, Transfer Canal, Cask Storage Pool) at an acceptable temperature to prevent damage to the fuel assemblies caused by overheating. The other safety-related function of the FPCCU system is to monitor water level in the spent fuel pool and fuel storage pool and maintain a sufficient water level above the fuel to provide shielding during postulated fuel handling accident condition and normal building occupancy.

Major New and Replacement Equipment

Heat Exchangers were installed in RF18; however, the pieces of equipment were not reasonably accessible due to lead shielding installed, and therefore removed from SWEL 2. There is no other major new or replacement equipment installations associated with the SFP.

Variety of Equipment Types

There are 8 different equipment classes represented on Base List 2: 0, 5, 7, 8, 18, 19, 20 and 21. Equipment classes 5, 8, 18, 20, and 21 are represented on SWEL 2.

Variety of Environments

All SFP components are nearby and are thus located in similar environments. Therefore, this sampling attribute is not applicable.

6.3 DEFERRED INACCESSIBLE ITEMS on SWEL

Each item on the SWEL shall be walked down as part of the NTTF Recommendation 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, it was not feasible to gain access to the equipment or view its anchorage because Grand Gulf Nuclear Station, Unit 1 (GGNS) was at power during the seismic walkdown phase. For these cases, walkdowns of these items have been deferred until the next refueling outage (RFO) in February of 2014. An updated submittal report incorporating these deferred walkdowns will be provided in April of 2014.

Deferred items are summarized in Table 6-1. The reason for deferral is identified as either ACC (indicating that the item is in an inaccessible item while the plant is at power) or CAB (indicating that the item requires opening cabinet/panel doors which was not permitted by plant Operations personnel during the walkdown period, due to being energized). A total of 10 items are deferred; of these, 9 are in inaccessible areas, and 1 is a cabinet/panel required to be opened.

Table 6-1

SWEL1-#	Equipment ID	Description	Reason for Deferral
005	R21S501-A	4.16 kV Switchgear Bus 15AA	CAB
009	B21F022A	MSI (MSL "A" DRWL Inbd Isol)	ACC
010	B21F028C	MSIV (MSL C CTMT Otbd Isol)	ACC
025	B21F065A	24" Feedwater Inlet A (FW INL Shutoff VLV)	ACC
027	B21F067C	1.5" Main Steam C (Otbd MSL C Dr VLV)	ACC
037	E32F001A	1.5" Main Steam A (Inboard Valves Test)	ACC
038	E32F001N	1.5" Main Steam D (Inboard Valves Test)	ACC
042	E12F041B	LPCI B Testable Check Valve (RHR B Testable Chk Vlv)	ACC
067	E12N103	Position Switch (Shutdn Clg Inbd Isol Vlv F009 Position Switch)	ACC
073	E31N031A	Air Temperature Element (MSL Pipe Tunnel Ambient Temperature Element)	ACC

7.0 SEISMIC WALKDOWNS AND AREA WALK-BYS

The NTF Recommendation 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 Grand Gulf Nuclear Station, Unit 1 (GGNS) by teams of two trained and qualified Seismic Walkdown Engineers (SWEs) (see Section [Table 4-1](#)). Each team included one engineer with at least several years of experience in seismic design and qualification of nuclear power plant SSCs. Each team included at least one Entergy and one contract engineer. A total of two SWE teams were used. The teams walked down the first 2 areas together to ensure consistency between the SWEs. Daily meetings were held to ensure that lessons learned were being shared.

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 with all personnel involved was conducted. This pre-job brief was used to outline the components and areas that would be walked down that day, to ensure consistency between the teams, to reinforce expectations to identifying potential personnel safety issues specific to that day, and to allow team members to ask questions and share lessons learned in the field. The SWE teams brought cameras, tape measures, binoculars, flashlights, AWCs, and SWCs into the field to assist with the seismic walkdowns and area walk-bys.

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 deferred (see Section 6.3). To document the results of the walkdown, a Seismic Walkdown Checklist (SWC) with the same content as that 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.

Prior to performance of the walkdowns, documentation packages were developed that contained the SWC (pre-filled with SWEL item identification information) and other pertinent information including the location drawings, response spectra information, previous IPEEE seismic walkdown documentation, and anchorage drawings where applicable. These documentation packages were brought with the SWE teams 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 included anchor bolts to concrete walls or floors, structural bolts to structural steel and

welds to structural steel or embedded plates. For welds, the walkdown team looked for cracks and corrosion in the weld and base metal. Other bolts or connections, such as flange bolts on in-line components were not considered as equipment anchorage, but were checked for missing hardware. 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". Thus, components with no attachments to the structure are considered as not having anchorage. Therefore, questions 2 through 5 in the SWC were answered "N/A" for all inline valves and other non-anchorage items. Nevertheless, the attachment of these components to other equipment was evaluated and inspected for potentially adverse seismic conditions.

While conducting walkdowns, items that were identified to be inaccessible were discussed with the Equipment Selection Personnel. These items were swapped out with accessible items that met similar selection criteria, or removed from the SWEL, while ensuring that the overall integrity of the final SWEL was not compromised.

Cabinets/panels on the SWEL that could be reasonably opened 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 breaking the plane of the equipment opening). In one case opening a cabinet/panel exhibited undue safety or operational hazards, so that item was considered inaccessible and the completion of its walkdown was deferred to a later time (see Section 6.3).

In addition to the general inspection requirements, at least 50% of the SWEL items with anchorage required confirmation that the anchorage configuration was consistent with plant documentation. Of the 102 SWEL items, 61 were considered to have anchorage (i.e., removing in-line/line-mounted components). Of these 61 anchored components, the walkdowns of 37 included anchorage configuration verification, which is greater than 50%. When an anchorage configuration verification was conducted, the specific plant documentation used for comparison to the as-found conditions was referenced on the SWC.

The SWC for each SWEL item where a seismic walkdown has been initiated is included in Attachment C. A total of 102 SWCs are attached, 92 with completion status marked "Y" and 10 with completion status marked "N". SWCs considered and marked "N" are those where a walkdown was initiated, but whose completion was ultimately deferred because the cabinet/panel could not be opened during the walkdown period, or areas were inaccessible. Therefore, the 92 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). The Area walk-by was completed where component were deferred simply due 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. 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 extent of the area encompassed by the area walk-by was limited to a radius of approximately 35 ft around the subject equipment. Because certain areas contained more than one SWEL item, there are fewer total area walk-bys conducted than seismic walkdowns. A total of 50 area walk-bys was necessary to cover all plant areas containing at least one SWEL item.

The AWC for each area walk-by completed is included in Attachment D. A total of 48 AWCs with completion status marked "Y" are attached, which represent all of the areas containing a SWEL item that were accessible during the walkdown period. Two additional area walk-bys with completion status marked "N" of inaccessible areas will be completed together with the deferred walkdowns for those inaccessible items (see Section 6.3).

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. This section summarizes the process used to handle conditions identified, what conditions were found, and how they were treated for eventual resolution.

CONDITON 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. These initial conclusions were based on conservative engineering judgment and the training required for SWE qualification.

For conditions that were quickly judged as insignificant to seismic response, the 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 conditions were reported to site personnel for further resolution through the Corrective Action Program (CAP) (see Section 8.2). A total of 31 seismically insignificant conditions were identified. These conditions were generally related to either general housekeeping issues (13) or mild degradation (16) (e.g. minor leaks, degraded coatings, loose or missing hardware that does not cause potentially adverse seismic conditions). There were also (2) conditions where items were missing labels.

For conditions that were reasonably judged as 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 then immediately reported to site personnel for further resolution and was documented for reporting in Attachment E. A total of 30 potentially adverse seismic conditions were identified. These conditions were generally related to, missing or loose anchorage (8), degraded grout or concrete conditions (7), or degraded, loose or missing mounting hardware for equipment (15).

CONDITION RESOLUTION

Conditions observed during the seismic walkdowns and area walk-bys 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 is addressed by entering it into the CAP directly. The decision to enter all conditions directly into the CAP was made based on the efficiency of the CAP process over conducting a Licensing basis evaluation (LBE) for eventual resolution of each specific

condition. The resolutions of these conditions are tracked by noting the CR numbers generated on the applicable SWCs and AWCs. In addition resolutions of these CRs with respect to the associated potentially adverse seismic conditions are summarized in Attachment E.

Unusual conditions that were not seismically significant were also entered into the CAP directly. Further resolution of these conditions is not tracked or reported as part of the NTTF Recommendation 2.3: Seismic Walkdown program, except by noting the CR numbers generated on the applicable SWCs and AWCs.

8.1 LICENSING BASIS EVALUATIONS

Potentially adverse seismic conditions identified as part of the NTTF Recommendation 2.3: Seismic Walkdown program may be evaluated by comparison to the current licensing basis of the plant as it relates to the seismic adequacy of the equipment in question, as is described in Section 5 of the Guidance. If an identified condition is consistent with existing seismic documentation associated with that item, then no further action is required. If the identified condition could not easily 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 under the guidance of GGNS engineering, all identified potentially adverse seismic conditions were entered directly into the CAP and 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 in accordance with the plant's existing processes and procedures. Conditions entered into the CAP included two types of unusual conditions identified:

- Seismically insignificant unusual conditions
- Potentially adverse seismic conditions

A total of 61 Condition Reports (CRs) were generated from the CAP as a result of the NTTF Recommendation 2.3: Seismic Walkdown program. Of those, half (31) were from seismically insignificant unusual conditions. A total of 30 CRs were written relative to potentially adverse seismic conditions identified. The CR numbers, current status, and resolution (where applicable and available) are summarized for all these potentially adverse seismic conditions in Attachment E. Several noteworthy conditions are summarized below.

CR-GGN-2012-11130 of Attachment E, several racks in Containment and Auxiliary buildings have anchorage that does not conform to their Seismic Qualification documentation. Initial review shows the existing condition should have sufficient strength; therefore, this condition will not adversely affect the function of the racks.

CR-GGN-2012-11312 of Attachment E, the head of one of twelve bolts on the lower west bracket of the RHR Heat Exchanger was not fully in contact with the support (i.e. there is a small gap between the support bracket and the head of the bolt.) The bolt is required to be flush with the bracket supporting heat exchanger 1E12B002B.

CR-GGN-2012-11343 of Attachment E, a bent support plate was noticed in the RHR B Pump room. The support plate is bolted together cantilevered from the wall. The plate is bent across the top and there are no visible signs of distortion from operation. The support plate does not show any signs of paint peeling or cracking the bolts are flush and tight and the distortion is only shown across the top of the plate.

A damper Z77F030 is missing three screws from the grill inside of the DIV I Battery Room. The damper is located on elevation 111 of the Control Building inside of the battery room. This issue was documented as an IPEEE vulnerability, and was documented as resolved on 12/19/94. The grill is still missing three of four screws. This condition was determined to have no adverse seismic effects, and is not included in Attachment E. CR-GGN-2012-11434 was written to correct this condition.

8.3 PLANT CHANGES

The CAP entries (CRs) generated by the NTTF Recommendation 2.3 Seismic Walkdown program are being resolved in accordance with the plant CAP process, including operability evaluations and extent of condition evaluations. Initial evaluations indicate that no immediate plant changes are necessary. Final and complete resolutions of the CRs for seismically insignificant unusual conditions and potentially adverse seismic conditions will determine if future modifications to the plant are required. While no immediate plant modifications have been identified as a result of the seismic walkdowns and walk-bys, various cases were found where repairs are required or housekeeping issues are being addressed. Current status and resolutions (where applicable and available) for CRs related to potentially adverse seismic conditions are provided in Attachment E.

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 Section 4.5) were involved in the peer review of each activity, the team member with the most relevant knowledge and experience taking the lead for that particular activity. 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

This section summarizes the process and results of each peer review activity.

9.2.1 Seismic Walkdown Equipment List Development

Peer Review of the SWEL development was performed by two peer review personnel. The peer review team for the SWEL development consists of the Entergy Nuclear Chief Engineer and a Senior Design Engineering in the Civil/Mechanical group both with extensive knowledge of plant systems and designs. The peer review for the Seismic Walkdown equipment list was performed as follows:

- A pre-job meeting was conducted with the Civil/Mechanical Supervisor, Equipment Selection Personnel (ESP), and peer review team lead to establish the requirements for the final SWEL. In this meeting the requirements for Base List #1 and Base List #2 were established.
- The equipment selection peer review team reviewed Base List #1 to ensure that the population use to develop SWEL#1 was a comprehensive list of SSC from the IPEEE

report. Emphasis was placed on selecting replaced equipment in the plant that was on the initial IPEEE report.

- The equipment selection peer review team reviewed Base List #2 to ensure that the SSC considered for SWEL#2 represented items associated with the SFP. Emphasis was placed on selecting replaced equipment in the plant associated with SFP.
- After the approval of Base List #1 and Base List #2 the ESP prepared SWEL #1 and SWEL #2.
- The equipment selection peer review team reviewed SWEL#1 to ensure that an adequately representation of equipment from the five safety functions was included. SWEL#1 and SWEL#2 were review to verify that where applicable replaced equipment was considered and chosen for the final SWEL. In addition a review of the equipment selected for SWEL#1 and SWEL#2 was performed to confirm that the SWEL would represent equipment in various locations and environments in the plant. Comments from the review of SWEL#1 and SWEL#2 were provided to the ESP team.
- A final meeting was conducted with the Civil/Mechanical Supervisor, ESP, and peer review team after the completion of the SWEL to discuss the final package to be used for the development of the SWD packages. During this meeting the peer review team concluded that all comments provided to the ESP team were adequately addressed.
- During the process of conducting the walkdowns, SWE teams encountered a small number of components that were not accessible or anchorage could not be verified and were 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. 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.

The final conclusion of the Equipment Selection peer review team is that the SWEL 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 that do not undergo regular inspections, and represent a diverse blend of different component types from critical systems and safety-related functions. Additionally, the components on the list represent adequate risk significance.

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

9.2.2 Seismic Walkdowns and Area Walk-Bys

Peer review of the seismic walkdowns and area walk-bys was conducted by two peer reviewers, one of whom is a qualified SWE and both with broad knowledge of seismic engineering applied to nuclear power plants. One of the peer reviewers was the site

design engineering manager and now the Nuclear Chief Engineer, and the other is a former SQUG representative for a different utility. The peer reviews were conducted at the Grand Gulf Nuclear Station, Unit 1 (GGNS) concurrent with the conduct of walkdowns, at approximately 50% completion. The peer review was performed as follows:

- The peer review team reviewed the walkdown packages (including checklists, photos, drawings, etc.) for SWEL items already completed to ensure that the checklists were completed in accordance with the Guidance. A total of 22 SWC and 12 AWC forms were reviewed, each representing approximately 20% 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 SWEL1-001, 003, 006, 007, 014, 019, 021, 023, 041, 045, 046, 049, 053, 054, 056, 059, 060, 064, 065, 075, SWEL2-007, and 009. Specific AWC forms reviewed are AWC-017, 023, 024, 025, 027, 029, 032, 033, 040, 043, 045, and 050.
- Interviews were conducted with SWE team members following walkdown activities. These were conducted informally on a daily basis to discuss challenges which arose during the day. Some of the major items discussed by the SWE team members and the Peer Reviewers included the differences between component mounting and anchorage, requirements for inspection of overhead lighting, and inspection for flooding/spray issues. These discussions also included clarifying questions by the peer reviewer to verify that the SWEs were conducting walkdowns and area walk-bys in accordance with the Guidance.
- The peer review team held a meeting with the SWE teams to provide feedback on the walkdown and walk-by packages reviewed and the informal interviews, and discuss potential modifications to the documentation packages in the context of the Guidance.
- A peer reviewer accompanied a SWE team into the field and observed them perform a walkdown of a SWEL component. During these observations, the peer reviewers asked clarifying questions to verify the walkdown and walk-by process being followed was in accordance with the Guidance. The item walked down under the observation of a peer reviewer is SWEL1-026.
- The peer review team held a meeting with the SWE teams to provide feedback on the walkdown and walk-by observations, and 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 to include additional clarifying details, particularly related to checklist questions marked "N/A" and where conditions were observed but judged as insignificant. The peer review team felt these modifications would be of benefit for future reviews of checklists

incorporated into the final report. These modifications were recommended following review of the walkdown and area walk-by packages, and the observation walkdown and area walk-by demonstrated that the SWEs understood the recommendations and were incorporating them into the walkdown and area walk-by process.

Based on completion of the walkdown and walk-by peer review activities described, the peer review team concludes that the SWE teams are 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 other adverse conditions related to anchorage, and perform anchorage configuration verifications, where applicable. The SWEs also demonstrated the ability to identify seismically-induced flooding interactions and seismically-induced fire interactions such as the examples described 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 appropriate checklists.

The peer review comments of the AWCs and SWCs are provided in Attachment H.

9.2.3 Licensing Basis Evaluations

No Licensing Basis Evaluations were performed for Grand Gulf Nuclear Station, Unit 1 (GGNS). All evaluation were completed under the CAP process.

9.2.4 Submittal Report

The peer review team was provided with a 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 Recommendation 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 addressed all peer review comments in the final version of the submittal report. The signature of the Peer Review Team Leader provides documentation that all elements of the peer review as described in Section 6 of the Guidance were completed.

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. Grand Gulf Nuclear Station, Updated Final Safety Analysis Report
4. Generic Letter No. 88-20, Supplement 4, Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
5. GGNS-93-0017, Grand Gulf Nuclear Station, Engineering Report for Selection of Safe Shutdown Paths and Equipment for the GGNS Seismic IPEEE, Revision 0
6. Grand Gulf Nuclear Station Civil Structural Design Criteria Manual, Rev. 4
7. GGNS-94-0053, Grand Gulf Nuclear Station, Engineering Report for IPEEE Reduced Scope Seismic Margin Assessment (SMA), Revision 0
8. PRA-GG-01-001, GGNS Level-1 Model Revision 3 PSA Summary, Revision 2

11.0 ATTACHMENTS

ATTACHMENT A – IPEEE VULNERABILITIES 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
General Comments					
V-01	Fluorescent light fixtures are typically not adequately supported. The use of "S" hooks and beam clamps is undesirable for seismic conditions. Several locations in the plant utilize a wire rope configuration with wire rope nuts for securing lighting fixtures. This method is preferable to the "S" hooks.	Plant staff will be notified about the "S" tightness or use of wire rope with wire nuts.	The plant specific Guidelines for Handling of Nonseismic Hazardous Items (Section VI of Design Criteria Manual) has provided specific inspection requirements for lighting fixtures for the purpose of Engineering Review Team (ERT) walkdown inspections. The "S" hooks are required to be pressed to prevent dislodging of the fixture.	Y	12/19/94
V-02	General housekeeping is lacking. Numerous locations in the Diesel Generator Building and Control Building have unsecured lockers, desks, ladders, carts, etc. that may be seismic II/I hazards.	<i>An action was not specified for this vulnerability in the IPEEE reports due to previously completed actions.</i>	Standard GGNS-CS-17 "criteria for prevention of potentially hazardous seismic II/I situation" has been prepared to ensure that plant staff complies with the requirements of controlling loose items.	Y	12/19/94
V-03	Movable Isolation Panels in the P700 Series Termination Panels in the Control Room are missing the locking/retaining devices at numerous locations.	<i>An action was not specified for this vulnerability in the IPEEE reports due to previously completed actions.</i>	There are numerous P700 Series Termination Panels in the Control Room. All safety-related panels were re-inspected for the missing locking/retaining devices and, when applicable, the locking/retaining devices were installed. Operations personnel were informed of this condition during the walkdown. An additional walkdown was performed by Mr. Amir Shahkarami to confirm the locking/retaining devices were installed.	N	12/19/94
V-04	Circuit boards in Control Room panels are missing retaining clips at numerous locations. The missing hardware occurred at a few isolated locations in the plant. The number of instances for this was low relative to other sites, and was not significant from a safety standpoint because of their low mass. Operations are now aware of this issue along with other housekeeping issues which should prevent this from reoccurring in the future.	<i>An action was not specified for this vulnerability in the IPEEE reports due to previously completed actions.</i>	These circuit boards have very low mass and are insensitive to seismic loadings. The clips are used to maintain a positive locking device to maintain them in place in the panel. Operations were informed of this problem and these panels were reinspected for the missing retainer clip and, when applicable, they were installed. Additional walkdowns by GGNS Engineering confirmed the clips had been installed.	N	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-05	LCC cabinets with exterior mounted hanging tool (approximately 5 feet long steel bar) and unsecured trolleys need to have the tools secured to preclude hammering the panels during a seismic event	<i>An action was not specified for this vulnerability in the IPEEE reports due to previously completed actions.</i>	The hanging tool was removed. The standard "GGNS-CS-17" for control of loose items does not allow leaving any tool in/on the safety-related enclosures. An additional walkdown was performed by Mr. Amir Shahkarami to confirm the hanging tool had been removed.	N	12/19/94
Control Building					
V-06	SZ51D002A & B, Control Room HVAC Fans: Bolts securing fan motor base are too short and thread engagement is approximately 1/2 the nut thickness.	The existing bolts will be replaced with bolts with sufficient length to obtain full thread engagement of the nut MNCR 0112-94 documents this condition.	Per Vendor Manual 460000536, Drawing D56906, the bolts used to secure the motor base are hex bolts 5/8-11. Although the length of the bolts is not specified on the drawing, it is apparent that the intent of the connection is to have bolts of sufficient length to provide full engagement of the nuts. Per review of QP 259, Page 43 of M-633.0-QS-7.0-6-B, the bolts securing the motor base have a margin of safety of 3.63. The adequacy of the connection will be maintained of the partial engagement.	N	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-07	P41F073A & B, Air Operated Valve: Valves are mislabeled in the field (tagged as Z51). Valve supports appear to be unfinished and final welds never completed. These supports may have been temporary construction items that were never removed.	DRN 4587 has been issued to add the note to drawing M-622.0-QSZ5B1002A-A1.1-5, Rev. 0.	The correct valve numbers are Z51F873A&B as confirmed by review of P&ID Drawings M-1061C and M-1061D. The valve supports have not been considered in the piping stress analysis Calculation No. 203, Rev. 9. The piping stress analysis considers the adjacent pipe flange as the tank nozzle and anchor point. The tank nozzle is qualified without considering the suspect valve supports which are physically located are the nozzle flange (Ref. Calculation QSZ51B002A-A-7.0-11-A, micro film reel 2207, frame 392). The valve supports are not shown on the pipe support isometric drawing (HL-1358G, Rev. 16), and were supplied as part of the Control Room A.C. Condensers. Discussions with both the Mechanical Stress Supervisor and the Civil Support Supervisor conclude that the existence of the valve supports do not constitute a problem but that Drawing M-622.0-QSZ51B002A-A-a. 1-5-0 requires revision to add a note stating "Valve mounting bracket not required for piping or nozzle qualification. This mounting bracket detail does not reflect the installed mounting bracket." The supports are not a problem because their existence will reduce seismic and dead load stresses in the piping system, while not increasing the thermal stresses.	Y	12/19/94
V-08	Z77B001A & B, Switchgear & Battery Room Air Handling Units: Anchorage calculations require review due to anchor bolt being located less than 10D from the concrete pad free edge. The P48 drainage piping that is a possible II/I hazard is documented in item no. V-10.	<i>An action was not specified for this vulnerability in the IPEEE reports due to follow up analysis of the anchorage.</i>	Review of the seismic qualification report and the anchorage detail (Ref. Draw. C-0606, Section C & Report NESE-204) shows that there is 6-7/8" edge distance available. Since the total weight of the assembly is about 10,520 lbs., and the seismic induced accelerations are less than 0.5gs the maximum shear and tension per any of the 12 anchors will be low in comparison with the concrete side bursting capacity of about 16,000 lbs. (Based on 4000 psi concrete).	N	12/19/94
V-09	SZ51F007, Motor Actuator: Electrical conduit (2" Diameter) for 1X141 Transmitter is in close proximity to the motor.	<i>An action was not specified for this vulnerability in the IPEEE reports due to follow up analysis.</i>	The close proximity has been determined acceptable due to the rigidity of the valve supports. This potential seismic interaction was determined acceptable by the SRT, but it was felt this item should be recorded to document this evaluation.	N	12/19/94
V-10	Z77F035A, Actuator, Damper, Valve: Drainage piping (system P48) is a potential seismic II/I hazard and appears to be nonseismically supported since no lateral pipe supports exist	<i>An action was not specified for this vulnerability in the IPEEE reports due to follow up review of documentation.</i>	ERT Report No(s). OC303-CS-1 and OC303-PD-7 state that a seismic analysis of the piping was performed and is documented in Stress Problem 479, Issue 1. The problem indicated that no additional supports are required. The existing hangers will adequately support the piping in a seismic event.	N	12/19/94
V-11	Z77C001A & B, Vane Axial Fan and Motor: Review fan mount detail to ensure no isolation mounts (internal and inaccessible). Calculation of fan duct support needs review for structural adequacy. Fan duct support appears marginal in longitudinal direction.	Revise QP No. 239 to include the evaluation performed.	Revision 3 of QP 239 was prepared as a result of IPEEE walkdown finding, to incorporate Attachment 3 for the evaluation to determine the structural adequacy of the support members and the anchorage.	Y	12/22/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-12	UPS Distribution Panels L62-1Y84, L62-1Y85, L62-1186, L62-1Y89: Review drawings to determine how base frame is fastened to floor slab.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up investigation.</i>	The UPS Distribution Panels are mounted to a concrete equipment pad with an encompassing angle. The as-built configuration of the equipment pad design is delineated on the mark-up of Drawing C-A602B, Rev B in Change Notice L62-4. According to the CN, 112"x4" long welded stud affix the angle to the pad. The equipment pad is secured to the floor slab by item 3 of CN L62-4 in lieu of Revision B of Drawing C-A602B. The panels are welded to the angles at on all four comers. Welding for the panels is delineated on drawings: 9645-E-22.2-Q1R28P110-A-1.1-1-3, 9645-E-022.2-Q1R28P120-B-1.1-1-3, 9645-E-22.2-Q1R28P130-A-1.1-1-3, 9645-E-22.2-Q1R28P140-A-1.1-1-3.	Y	12/19/94
V-13	Fire Dampers Z77F009, Z77F025A: The damper located inside the duct is inaccessible. Review drawings to ascertain acceptability. Review seismic qualification for fire dampers.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up drawing review.</i>	Fire Damper Z77F009 is a curtain type fire damper. This type damper is seismically qualified per QP no. 234. The qualification was confirmed by GGNS Engineering to be in the same configuration as installed in the field. The QP documents that the damper possessed sufficient structural integrity to withstand, without compromise of structures or function the prescribed seismic environment. This conclusion is based on test results furnished in Report # 44571-1. Fire Damper Z77F025A is a 8"x12" trap door type fire damper. This type damper is seismically qualified per QP no 233. The qualification was confirmed by GGNS Engineering to be in the same configuration as installed in the field. According to this QP, a seismic event will not compromise the damper from functioning as originally designed. This conclusion is based on calculations documented in "Seismic Qualification Report for Model 2217 Trap Door Fire Dampers" Report No. 80287-10.	N	12/19/94
V-14	Z77F030, Fire Damper: Register inside battery room is missing three of the four screws which secure the grill.	Secure grill to valve Z77F030 with four screws.	A subsequent walkdown by Mr. Mark D. Locke and Mr. Sonny McGuffee on August 18, 1994, found the three missing screws had been installed in the grill.	N	12/19/94
V-15	LCC 15BA6: Anchorage needs to be reviewed as only two comers of the LCC appear to be welded (2" long welds).	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up drawing review.</i>	A review of Drawing E-17.0-Q1R.20S650-1.1-1-7, and QP No.8, Rev 2 indicates the LCC is anchored to the floor by welding. This was verified during a walkdown of the LCC. Inspection of the LCC showed that it is welded to steel embedded in the 111' elevation floor slab. Welds anchoring the LCC are visible in both north-south and east-west directions on all four comers. Additional anchoring welds may exist, but are not visible; hence, cannot be verified.	N	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-16	BUSSES 15AA (Div I) & 16AB (Div II): Initial walkdown could not detect anchorage of panels.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up drawing review.</i>	Review of design drawings and subsequent follow-up walkdown revealed apparent plug welds of the cabinet to embedded steel.	N	12/19/94
V-17	Battery Racks IDA3 & IDB3: Upper row of batteries is missing a foam spacer that secures batteries longitudinally. Drawing E-019.1-Q1L11S0001A-1.1-13-2 specifies polystyrene spacers between adjacent batteries.	<i>An action was not specified for this vulnerability in the IPEEE reports due to previously completed actions.</i>	Operations was verbally informed of this condition. The missing spacer was installed. Additional walkdown verified that all required spacers as specified on above referenced drawing are in place between the batteries.	N	12/19/94
V-18	MCC 16B61 and 15B61: Panels not bolted together- Panels are secured together by top plate, except for end unit.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up investigation.</i>	Use similar screws and overlapped plate used at other multi-units to prevent any relative motion. MNCR0111-94 documents this condition. Further inspections after the MNCR was issued, removed covers from the MCC panels. No bolts were found along the vertical length of the panel as was originally expected. However, once the panels were removed, four bolts were found at the very top of the panel and four bolts at the very bottom of the panel which adequately secure the side panel to the set of three panel. Based on this inspection, the MNCR will be closed by stating "No Non-conformance Exists". No further concerns exist for the MCC units.	N	12/19/94
V-19	BUS 11DA: Evaluate adequacy of anchorage of panel to slab. Internally mounted angles used to hold down cabinet by bolting are not welded to the cabinet frame. The two south comers of the panel are welded to base plates, but the north comers are not welded. Specifically evaluate the adequacy of the welded comers to carry entire lateral shear loads.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up drawing review and calculations.</i>	Vendor drawing, E-021.0-Q ILS IIIA-1.1-001, states: "mounting strap 1 1/4"x6"x1/4" with 5/8" Dia. hole. Welding per detail shown in the body of the drawing may be used in lieu of mounting straps. The seismic test report, E021.0-QS-7.0-2-0, indicates that the panel was bolted to a flat steel plate which in tum was welded to the seismic test machine. The actual installation used the strap, as per instruction given in the vendor drawing, as well as welding the south comers, including the middle part of the panel with approximately 28.25" long, 118" fillet weld. The total weight of the panel is about 2 Kips. The weld provides about 50 kips capacity based on the normal load condition (weld: $.3 \times 70 \times 1 / 8 \times 0.7071 \times 28.25 = 52.4$ Kips or base metal shear: $.4 \times 36 \times 1 / 8 \times 28.25 = 50.85$ Kips) which is much greater than total shear due to the seismic load. The vertical load can easily be taken by the straps and anchor bolts. The installed anchorage is sufficiently rigid for the seismic loads. Because of the low aspect ratio there is very little if any uplift on the anchorage.	N	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-20	Transfer Panel, H22P152: Confirm via design drawings that structural frame is anchored to the slab. Not discernible by field inspection.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up drawing review.</i>	QP No. 20.5 indicates that mounting of the Panel H22P152 in the field is by welding. The QP references Drawing E083.0-Q1H22P152-1.1-I-C. Revision C of this drawing and CN C61-19 document how the panel is mounted to the equipment pad at floor elevation 111'-0". The panel is welded to the L5x3 angles attached to the concrete equipment pad. Drawing C-0602A provides the design of the equipment pad.	N	12/19/94
V-21	Upper Control Room, EI 189: Lighting fixtures spanning in the east/west direction may need to be modified.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to follow up assessment.</i>	There is sufficient flexibility in the fixture system configuration to accommodate the anticipated seismic movement. There are no soft targets or exposed safety-related items that could be impacted as the result of fixture movement.	N	12/19/94
V-22	IRM/APRM Recorder in H13P680 Control Room Panel: Recorders are relatively long and not supported on ends (cantilevered). Circuit board cards (3) don't have retaining clips.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on configuration documents.</i>	Engineering Report SERI-87-08 provides seismic qualification of these cantilevered Recorders for their as built configuration. The recorders (subcomponents) were confirmed to be part of the parent component that was tested. The recorder was confirmed to be in the same configuration in the test as installed in the field by GGNS Engineering. Retaining clips for the circuit board cards were installed when missing in General Resolution Item V-09.	N	12/19/94
V-23	Control Room Panel H13P642: Contains a recorder cantilevered over 12 inches.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on configuration documents.</i>	The qualification of the subject cantilevered recorder was performed by GE as part of the parent panel qualification and therefore it is considered acceptable (Ref. QP No.379 and 388). The recorder was confirmed to be in the same configuration in the test as installed in the field by GGNS Engineering.	N	12/19/94
V-24	Penetration CP-9A: The grouted condition of the penetration was not accounted for in the stress analysis of the piping systems. Four SSW (System P41) pipes are affected. The as found condition has the potential to induce significantly high seismic stresses into the piping between buildings.	MCP 94/1011 was issued to resolve the grouted condition.	The grout was removed and MCP 94/1011 was issued to repair penetration CP-9A. Note, the existing grouted condition was evaluated for operability considerations, and was determined not to be an operability concern.	N	12/19/94
Auxiliary Building					
V-25	P41F064B & P41F081B, Ctrl Room A/C from SSW Valves: Actuator weight greater than SEWS guidelines. Location of valve and piping geometry appear flexible relative to pipe support locations. Review piping calculation to ensure valve eccentricity is modeled and piping is analyzed.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on configuration documents and previous analysis.</i>	A review of piping calculation PDS-A72A, Rev. B revealed that the valve P41F064B is modeled using a weight located at the center of gravity. However calculation PDS-A73A, Rev. B showed that valve P41F081B is modeled using a weight of 230 lbs. instead of the actual weight of 295 lbs. The re-analysis of the stress run has been performed for the actual configuration and found to meet the design basis requirements. The valve including the yoke was confirmed to be qualified in calculation NPEP41F064A, B/F0066A, B/F081A, B/F154/F1551F237, Rev 3, by GGNS Engineering.	Y	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-26	E22C003, HPCS Jockey Pump: Oil sight bulb appears to be glass and susceptible to breakage which might make the pump inoperable. This is a generic concern for jockey pumps.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	The seismic qualification for the pump was done for the unit which included the sight bulb. The configuration of the pump was confirmed by GGNS Engineering to be the same in the qualification as installed in the field. The Seismic Review Team did not identify any seismic interactions in the vicinity of the site bulb that would hit or fall on the bulbs during an earthquake.	N	12/19/94
V-27	R20S510 & R20S530, R20S610, R20S630, & R20S640: LCC 15BA1 & LCC 15BA3, LCC 16BB1, LCC 16BB3 & LCC 16BB4 respectively. Need to check drawings for anchors - saw some plug welds. Interaction, racking crank hung off of units, transformer in center of unit Need to look inside transformer cabinet to see how supported - embeds along each side.	Engineering Standard GGNS-CS-17 is being issued to resolve II/I "loose items". This standard resolves the racking crank and the top trolley movements for II/I concern.	A follow-up field walkdown was performed by A. Shahkarami and G. Thomas (S&A) confirming the seismic adequacy of mounting details and transformer cabinet. During IPEEE work. GGNS-CS-17 has been confirmed to be in place during NTTF Recommendation 2.3 activities.	N	4/11/95
V-28	E30F591A E30F591B, SP Level Instrument Valves: Power vacuum lift chain to support. This is not a good practice, but not a problem in this case.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to previous completed actions.</i>	Operation personnel removed it. Standard GGNS-CS-17 provides guidance for future concerns.	Y	12/19/94
V-29	P52F105, Air Actuator 3" AO Gate Valve: Temporary ladder could interact, not potentially damaging, but not a good practice.	<i>An action was not specified for this potential vulnerability in the IPEEE reports due to previous completed actions.</i>	Removed and placed on floor by operators. Standard GGNS-CS-17 provides guidance for future concerns.	Y	12/19/94
Diesel Generator Building					
V-30	P41F024A, Safety Relief Valve: Closest pipe support is approximately 10 feet from valve. Review calculations and drawings to ascertain adequacy. Concern is lateral support adequacy.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	A review of the design revealed the piping containing valve P41F024A was designed per M-18. This review indicates that the valve is adequately supported for the thermal and seismic load cases.	N	12/19/94
V-31	H22PII3, DG Control Panel: Check calculations for stairway in west bay of DG building to ensure stairs are not II/I hazard.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	Stairway has already been designed for applicable seismic loads (Ref. Calculation C-U-400).	N	12/19/94
V-32	P75A001A & B, Starting Air Tanks: Check calculations of tank for loads induced by air dryers which have estimated weight of 1500 lbs.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	Review of QP 44.0 (Seismic Report 7490 page 57) revealed that the finite element model for the Starting Air Tanks has included the air dryer and its mounting to the tank.	N	12/19/94
V-33	Load Resistors installed along south walls of Diesel bays are located in nonseismic fenced, cage-type structure. These structures could impose seismic II/I concerns for adjacent starting air after coolers and other nearby equipment.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	A review of cage failure by electrical engineering (EAR C-94-005) indicates that the failure of the cage will not have any impact on the safety function of the Diesel Generator divisions I & II. There are no soft safety-related items within the cage failure.	N	12/19/94
V-34	P75C013A, Diesel driven air compressor contains a battery that is not longitudinally supported.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	This component is non-safety related. The battery remains confined by its top guide plate and the base container.	N	12/19/94
V-35	4" diameter threaded vent line pipe riser in the Diesel Bays spans approximately 25 ft before first support. Review for adequacy to ensure no II/I hazard exists.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	This line was analyzed for Failure Mode Analysis in the following calculations: PDS-366, PDS-367, and PDS-368.	N	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-36	H22-260, PI Rack, FSKI-01270-061-G: Check the expansion anchor effective embedment. Projection from top of base plate to top of concrete is 2-114".	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	Based on the review of the drawings and calculation C-H091.8, the minimum embedment length for the 1/2" Hilti is 4-3/4" (7H- 2 1/4H projection). The total weight of the panel is less than 800 lbs. and will be subject to 0.28g vertical and 0.64 horizontal accelerations. There are four base plates with four anchors in each plate. The allowable tension per anchor is 2500 lbs and shear of 2560 lbs. Therefore, the panel anchorage was determined to be very adequate.	N	12/19/94
V-37	X77C001A & B, Vane Axial Fan and Motor: Review drawings to ensure that no vibration isolation mounts were utilized. The motor is internal to the duct and therefore inaccessible.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	No vibration isolation has been used for mounting purpose. Similar to Control Building comment no. V-11.	N	12/19/94
SSW Basin					
V-38	MCC15B51 & 16B51: MCC appears to be seal welded to embedded steel. Review the connection for structural adequacy. The panels are tied together by splash shield on the top of the cabinet.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	There are 80" of weld at each end of the MCC panels. The maximum reaction per inch of weld is less than 300 lbs. The existing weld provides adequate mounting for the panels.	N	12/19/94
V-39	LCC 15BA5 & LCC 16BB5: Review the anchorage calculation to ensure adequate anchorage. Appears to be plug welded and 1/4" diameter studs are projecting up from the bottom of the cabinet but the studs may be welded to the cabinet and not embedded in the concrete.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	Anchorage per QP #8 is plug welds. The 1/4" studs projecting from inside the bottom of the cabinets are not anchor bolts, but rather mounting bolts used to secure internal subcomponents.	N	12/19/94
V-40	Y47C001A & B, Vane Axial Fans: Motor inspected; fan is not accessible.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	Similar to Control Building comment no. V-11.	Y	12/19/94
Turbine Building					
V-41	Pressure Transmitters B21N076A & C: Non-seismic cable trays and electrical conduit are located above the transmitters. The fail-safe design of these transmitters were examined. May need to consider design of protective barriers over the transmitters to protect from seismic II/I hazards.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	The Q&R No. 031.10 response to NRC has provided the rationale for acceptability of these devices in the non-safety related building. In addition FSAR page 9.5-9 indicates that the minimal amount of safety-related equipment located in non-seismic category I buildings is designed to fail safe or to fail in manner that does not compromise any required safety functions.	N	12/19/94

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-42	Pressure Transmitters B21N076B & D: Non-seismic cable trays and electrical conduit are located over the transmitters. CMU block walls for the Turbine Building elevator need to be reviewed to ensure walls are seismically designed or the elevator would pose a seismic II/1 hazard to these transmitters.	<i>An action was not specified for this potential vulnerability in the IPEEE reports based on additional assessments.</i>	Same as above resolution.	N	12/19/94

Prepared by: Chase Wharton Chase Wharton

Date: 11/13/2012

Attachment B

SEISMIC WALKDOWN EQUIPMENT LISTS

Table 1 – Base List 1
Table 2 – SWEL 1
Table 3 – Base List 2
Table 4 – SWEL 2

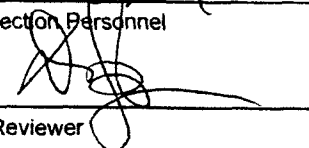
Seismic Walkdown Equipment List Approval

Prepared by: Fred Hopkins 
Equipment Selection Personnel


Date: 11/15/12

Prepared by: Tori L. Robinson 
Equipment Selection Personnel

Date: 11/15/12

Reviewed by: Doug Jones 
Peer Reviewer

Date: 11/15/12

Concurrence by: Terry Holcombe 
Operations Personnel

Date: 11/15/12

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev	Room or Row/Col
1	21	B21A100A	PA001	ADS VALVE AIR RECEIVER	DW	161	1A112
1	21	B21A100B	PA002	ADS VALVE AIR RECEIVER	DW	161	1A113
1	21	B21A100C	PA003	ADS VALVE AIR RECEIVER	DW	161	1A114
1	21	B21A100C	PA004	ADS VALVE AIR RECEIVER	DW	161	1A115
1	08	B21F016	ACB001	3" MAIN STEAM DRAIN TO CONDENSER	DW	135	1A116
1	08	B21F019	PCB001	3" MAIN STEAM DRAIN TO CONDENSER	AB	139	1A305
1	07	B21F022A	PA005	MSIV	DW	151	1A112
1	07	B21F022B	PA006	MSIV	DW	151	1A112
1	07	B21F022C	PA007	MSIV	DW	151	1A112
1	07	B21F022D	PA008	MSIV	DW	151	1A112
1	07	B21F028A	PA009	MSIV	AB	151	1A305
1	07	B21F028B	PA010	MSIV	AB	151	1A305
1	07	B21F028C	PA011	MSIV	AB	151	1A305
1	07	B21F028D	PA012	MSIV	AB	151	1A305
1	07	B21F041D	PA013	MSIV	DW	157	1A112
1	07	B21F041F	PA014	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F041K	PA015	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F047A	PA016	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F047L	PA017	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F051A	PA018	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F051B	PA019	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F051C	PA020	SAFETY RELIEF VALVE	DW	157	1A112
1	07	B21F051D	PA021	SAFETY RELIEF VALVE	DW	157	1A305
1	00	B21F065A	CB001	24" FEEDWATER INLET A	AB	139	1A305
1	00	B21F065B	CB002	24" FEEDWATER INLET A	AB	139	1A305
1	08	B21F067A	CB003	1.5" MAIN STEAM A	AB	139	1A305
1	08	B21F067B	CB004	1.5" MAIN STEAM B	AB	139	1A305
1	08	B21F067C	CB005	1.5" MAIN STEAM C	AB	139	1A112
1	07	B21F125A	PA022	RELIEF VALVE	DW	161	1A112
1	07	B21F125B	PA023	RELIEF VALVE	DW	161	1A112
1	07	B21F125C	PA024	RELIEF VALVE	DW	161	1A112
1	07	B21F125D	PA025	RELIEF VALVE	DW	161	1A112
1	07	B21F125E	PA026	RELIEF VALVE	DW	161	1A112
1	07	B21F125F	PA027	RELIEF VALVE	DW	161	1A112
1	07	B21F125G	PA028	RELIEF VALVE	DW	161	1A112
1	07	B21F125H	PA029	RELIEF VALVE	DW	161	1A112
1	07	B21F125J	PA030	RELIEF VALVE	DW	161	1A112
1	08	B21F505D	PA031	SOLENOID VALVE	DW	157	1B21F041D
1	08	B21F505F	PA032	SOLENOID VALVE	DW	157	1B21F041F
1	08	B21F505H	PA033	SOLENOID VALVE	DW	157	1B21F041K
1	08	B21F505J	PA034	SOLENOID VALVE	DW	157	1B21F047A
1	08	B21F505P	PA035	SOLENOID VALVE	DW	157	1B21F047L
1	08	B21F505R	PA036	SOLENOID VALVE	DW	157	1B21F051A
1	08	B21F505S	PA037	SOLENOID VALVE	DW	157	1B21F051B
1	08	B21F505T	PA038	SOLENOID VALVE	DW	157	1B21F051C
1	08	B21F505U	PA039	SOLENOID VALVE	DW	157	1B21F051D
1	08	B21F506F	PA041	SOLENOID VALVE	DW	157	1B21F041D
1	08	B21F506H	PA042	SOLENOID VALVE	DW	157	1B21F041F
1	08	B21F506J	PA043	SOLENOID VALVE	DW	157	1B21F041K
1	08	B21F506O	PA040	SOLENOID VALVE	DW	157	1B21F047A
1	08	B21F506P	PA044	SOLENOID VALVE	DW	157	1B21F047L
1	08	B21F506R	PA045	SOLENOID VALVE	DW	157	1B21F051A
1	08	B21F506S	PA046	SOLENOID VALVE	DW	157	1B21F051B
1	08	B21F506T	PA047	SOLENOID VALVE	DW	157	1B21F051C
1	08	B21F506U	PA048	SOLENOID VALVE	DW	157	1B21F051D
1	20	B21N044C	P001	LEVEL TRANSMITTER	CTB	136	1H22P004
1	20	B21N044D	A001	LEVEL TRANSMITTER	CTB	136	1H22P027
1	18	B21N062A	P002	PRESSURE TRANSMITTER	CTB	136	1H22P004
1	18	B21N062B	A002	PRESSURE TRANSMITTER	CTB	136	1H22P027
1	18	B21N068A	P003	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N068B	A003	PRESSURE TRANSMITTER	CTB	136	1H22P027

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	18	B21N068E	P004	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N068F	A004	PRESSURE TRANSMITTER	CTB	136	1H22P027
1	18	B21N076A	PA049	PRESSURE TRANSMITTER	TB	113	1A311
1	18	B21N076B	PA050	PRESSURE TRANSMITTER	TB	113	1T327
1	18	B21N076C	PA051	PRESSURE TRANSMITTER	TB	113	1T226
1	18	B21N076D	PA052	PRESSURE TRANSMITTER	TB	113	1T325
1	18	B21N078A	A005	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N078B	A006	PRESSURE TRANSMITTER	CTB	136	1H22P027
1	18	B21N078C	A007	PRESSURE TRANSMITTER	CTB	136	1H22P005
1	18	B21N078D	A008	PRESSURE TRANSMITTER	CTB	136	1H22P026
1	18	B21N080A	P005	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N080C	A009	LEVEL TRANSMITTER	CTB	136	1H22P005
1	18	B21N080D	A010	LEVEL TRANSMITTER	CTB	136	1H22P026
1	18	B21N081A	P006	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N081B	PA072	LEVEL TRANSMITTER	CTB	136	1H22P027
1	18	B21N081D	PA073	LEVEL TRANSMITTER	CTB	136	1H22P026
1	18	B21N091A	P007	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N091B	A011	LEVEL TRANSMITTER	CTB	136	1H22P027
1	18	B21N091E	P008	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N091F	A012	LEVEL TRANSMITTER	CTB	136	1H22P027
1	18	B21N094A	P009	PRESSURE TRANSMITTER	CTB	136	1H22P004
1	18	B21N094B	A013	PRESSURE TRANSMITTER	CTB	136	1H22P027
1	18	B21N094E	P010	PRESSURE TRANSMITTER	CTB	136	1H22P004
1	18	B21N094F	A014	PRESSURE TRANSMITTER	CTB	136	1H22P027
1	18	B21N095A	A015	LEVEL TRANSMITTER	CTB	136	1H22P004
1	18	B21N095B	A016	LEVEL TRANSMITTER	CTB	136	1H22P027
1	20	B21N101A	PA049	POSITION SWITCH (RG 1.97)	DW	136	1B21F022A
1	20	B21N101B	PA050	POSITION SWITCH (RG 1.97)	DW	136	1B21F022B
1	20	B21N101C	PA051	POSITION SWITCH (RG 1.97)	DW	136	1B21F022C
1	20	B21N101D	PA052	POSITION SWITCH (RG 1.97)	DW	136	1B21F022D
1	20	B21N102A	PA053	POSITION SWITCH (RG 1.97)	AB	136	1B21F028A
1	20	B21N102B	PA054	POSITION SWITCH (RG 1.97)	AB	136	1B21F028B
1	20	B21N102C	PA055	POSITION SWITCH (RG 1.97)	AB	136	1B21F028C
1	20	B21N102D	PA056	POSITION SWITCH (RG 1.97)	AB	136	1B21F028D
1	20	B21N150D	PA057	POSITION SWITCH (RG 1.97)	CTB	166	1A445
1	20	B21N150F	PA058	POSITION SWITCH (RG 1.97)	CTB	166	1A445
1	20	B21N150H	PA059	POSITION SWITCH (RG 1.97)	CTB	166	1A445
1	20	B21N150J	PA060	POSITION SWITCH (RG 1.97)	CTB	166	1A447
1	20	B21N150P	PA061	POSITION SWITCH (RG 1.97)	CTB	166	1A447
1	20	B21N150R	PA062	POSITION SWITCH (RG 1.97)	CTB	166	1A447
1	20	B21N150S	PA063	POSITION SWITCH (RG 1.97)	CTB	166	1A445
1	20	B21N150T	PA064	POSITION SWITCH (RG 1.97)	CTB	166	1A520
1	20	B21N150U	PA065	POSITION SWITCH (RG 1.97)	CTB	166	1A445
1	18	B21N201A	PA066	PRESSURE TRANSMITTER	CTB	137	1A313
1	18	B21N201B	PA067	PRESSURE XMITTER	CTB	137	1A311
1	18	B21N616E	P011	TRIP UNIT	CB	189	1H13P629
1	18	B21N616F	PA139	TRIP UNIT	CB	166	1H13P618
1	18	B21N617A	P012	TRIP UNIT	CB	189	1H13P629
1	18	B21N617B	A017	TRIP UNIT	CB	166	1H13P618
1	18	B21N618A	P013	TRIP UNIT	CB	189	1H13P629
1	18	B21N618B	A018	TRIP UNIT	CB	166	1H13P618
1	18	B21N618E	P014	TRIP UNIT	CB	189	1H13P629
1	18	B21N618F	A019	TRIP UNIT	CB	166	1H13P618
1	20	B21N668A	P015	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	B21N668B	A020	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	B21N668E	P016	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	B21N668F	A021	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	B21N669A	P017	PRESSURE SWITCH	CB	189	1H13P629
1	20	B21N669B	A022	PRESSURE SWITCH	CB	166	1H13P618
1	20	B21N669E	P018	PRESSURE SWITCH	CB	189	1H13P629
1	20	B21N669F	A023	PRESSURE SWITCH	CB	166	1H13P618

TABLE 1 BASE LIST							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev	Room or Row/Col
1	20	B21N670A	P019	PRESSURE SWITCH	CB	189	1H13P629
1	20	B21N670B	A024	PRESSURE SWITCH	CB	166	1H13P618
1	20	B21N670E	P020	PRESSURE SWITCH	CB	189	1H13P629
1	20	B21N670F	A025	PRESSURE SWITCH	CB	166	1H13P618
1	20	B21N676A	PA068	PRESSURE INDICATING SWITCH	CB	189	1H13P691
1	20	B21N676B	PA069	PRESSURE INDICATING SWITCH	CB	166	1H13P692
1	20	B21N676C	PA070	PRESSURE INDICATING SWITCH	CB	189	1H13P693
1	20	B21N676D	PA071	PRESSURE INDICATING SWITCH	CB	166	1H13P694
1	20	B21N678A	P021	PRESSURE INDICATING SWITCH	CB	189	1H13P691
1	20	B21N678B	A026	PRESSURE INDICATING SWITCH	CB	166	1H13P692
1	20	B21N678C	A027	PRESSURE INDICATING SWITCH	CB	189	1H13P693
1	20	B21N678D	A028	PRESSURE INDICATING SWITCH	CB	166	1H13P694
1	18	B21N679A	P022	TRIP UNIT	CB	189	1H13P691
1	18	B21N679B	A029	TRIP UNIT	CB	166	1H13P692
1	18	B21N679C	A030	TRIP UNIT	CB	189	1H13P693
1	18	B21N679D	A031	TRIP UNIT	CB	166	1H13P694
1	20	B21N680A	P023	LEVEL INDICATING SWITCH	CB	189	1H13P691
1	20	B21N680B	A032	LEVEL INDICATING SWITCH	CB	166	1H13P692
1	20	B21N680C	A033	LEVEL INDICATING SWITCH	CB	189	1H13P693
1	20	B21N680D	A034	LEVEL INDICATING SWITCH	CB	166	1H13P694
1	20	B21N681A	P024	LEVEL INDICATING SWITCH	CB	189	1H13P691
1	20	B21N681B	A035	LEVEL INDICATING SWITCH	CB	166	1H13P692
1	20	B21N681C	PA072	LEVEL INDICATING SWITCH	CB	189	1H13P693
1	20	B21N681D	PA073	LEVEL INDICATING SWITCH	CB	166	1H13P694
1	20	B21N682A	P025	LEVEL INDICATING SWITCH	CB	189	1H13P691
1	20	B21N682B	A036	LEVEL SWITCH	CB	166	1H13P692
1	20	B21N682C	PA074	LEVEL SWITCH	CB	189	1H13P693
1	20	B21N682D	PA075	LEVEL SWITCH	CB	166	1H13P694
1	20	B21N691A	P026	LEVEL SWITCH	CB	189	1H13P629
1	20	B21N691B	A037	LEVEL SWITCH	CB	166	1H13P618
1	20	B21N691E	P027	LEVEL INDICATING SWITCH	CB	189	1H13P629
1	20	B21N691F	A038	LEVEL INDICATING SWITCH	CB	166	1H13P618
1	20	B21N692A	P028	LEVEL SWITCH	CB	189	1H13P629
1	20	B21N692B	A039	LEVEL SWITCH	CB	166	1H13P618
1	20	B21N692E	P029	LEVEL SWITCH	CB	189	1H13P629
1	20	B21N693A	P030	LEVEL SWITCH	CB	189	1H13P629
1	20	B21N693B	A040	LEVEL SWITCH	CB	166	1H13P618
1	20	B21N694	P031	PRESSURE INDICATING SWITCH	CB	166	1H13P629
1	20	B21N694A	P032	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	B21N694B	A041	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	B21N694E	P033	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	B21N694F	A042	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	B21N695A	P034	LEVEL INDICATING SWITCH	CB	189	1H13P629
1	20	B21N695B	A043	LEVEL INDICATING SWITCH	CB	166	1H13P618
1	18	B21N697B	A044	TRIP UNIT	CB	166	1H13P618
1	18	B21N697F	A045	TRIP UNIT	CB	166	1H13P618
1	18	B21N698B	A046	TRIP UNIT	CB	166	1H13P618
1	18	B21N698F	A047	TRIP UNIT	CB	166	1H13P618
1	18	B21N701A	PA076	TRIP UNIT	CB	189	1H13P629
1	18	B21N701B	PA077	TRIP UNIT	CB	166	1H13P618
1	20	B21R615A	P035	LEVEL RECORDER (RG 1.97)	CB	166	1H13P601
1	20	B21R615B	A048	LEVEL RECORDER (RG 1.97)	CB	166	1H13P601
1	20	B21R623A	P036	RECORDER	CB	166	1H13P601
1	20	B21R623B	P037	RECORDER	CB	166	1H13P601
1	20	B21R702A	PA078	METER	CB	166	1H13P601
1	20	B21R702B	PA079	METER	CB	166	1H13P601
1	08	B33F019	PA142	3/4"HO GLOBE VALVE/MOTOR ACTUATOR	CTB	161	1A112
1	08	B33F020	PA144	3/4"HO GLOBE VALVE/MOTOR ACTUATOR	CTB	184	1A514
1	00	B33F125	CB006	.75" REACTOR RCIC POST ACCIDENT SAMPLE	AB	120	1A220
1	00	B33F126	CB007	.75" REACTOR RCIC POST ACCIDENT SAMPLE	CTB	141	1A311
1	00	B33F127	CB008	.75" REACTOR RCIC POST ACCIDENT SAMPLE	AB	166	1A203

TABLE 1								
BASE LIST 1								
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col	
1	00	B33F128	CB009	.75" REACTOR RCIC POST ACCIDENT SAMPLE	AB	166	1A313	
1	08	B33F129	PA177	ISOLATION VALVE	CTB	185	1A514	
1	00	C11A001XX	PA080	PORT NITROGEN CHARGE SYSTEM HCU	CTB	135	1A117	
1	08	C11D001	PA162	HCU	CTB	135	1A313	
1	08	C11F009	PA160	CRD SCAM SOLENOID VALVE	CTB	135	1A311	
1	18	C11F010	PA082	GLOBE VALVE	CTB	135	1A311	
1	18	C11F011	PA083	GLOBE VALVE	CTB	135	1H13P691	
1	00	C11F083	CB010	2"CRD PUMP DISCHARGE	AB	139	1H13P692	
1	08	C11F110A	PA084	CRD SCAM SOLENOID VALVE B/U	CTB	135		
1	08	C11F110B	PA085	CRD SCAM SOLENOID VALVE B/U	CTB	135		
1	08	C11F180	PA086	GLOBE VALVE	CTB	135	1A311	
1	08	C11F181	PA087	GLOBE VALVE	CTB	135	1A311	
1	08	C11F182	PA088	INSTRUMENT AIR SOLENOID VALVE	CTB	135	1H13P691	
1	08	C11F417XX	PA089	EXHAUST VALVE	CB		1C11D001	
1	00	C11N124XX	PA090	CONTROL ROD XX POSH (CH 1)			1A112	
1	00	C11N125XX	PA091	CONTROL ROD XX POSH (CH 2)			1A112	
1	08	C11N126XX	PA092	SOLENOID VALVE	CTB	135	1C11D001	
1	08	C11N127XX	PA093	SOLENOID VALVE	CTB	135	1C11D001	
1	20	C51K605A	PA094	POWER RANGE MONITOR A	CB	189	1H13P669	
1	20	C51K605B	PA095	POWER RANGE MONITOR B	CB	166	1H13P670	
1	20	C51K605C	PA096	POWER RANGE MONITOR C	CB	189	1H13P669	
1	20	C51K605D	PA097	POWER RANGE MONITOR D	CB	166	1H13P670	
1	20	C51K605E	PA098	POWER RANGE MONITOR E	CB	189	1H13P669	
1	20	C51K605F	PA099	POWER RANGE MONITOR F	CB	166	1H13P670	
1	20	C51K605G	PA100	POWER RANGE MONITOR G	CB	189	1H13P669	
1	20	C51K605H	PA101	POWER RANGE MONITOR H	CB	166	1H13P670	
1	20	C51R603A	PA102	IRM/APRM RECORDER A	CB	166	1H13P680	
1	20	C51R603B	PA103	IRM/APRM RECORDER B	CB	166	1H13P680	
1	20	C51R603C	PA104	IRM/APRM RECORDER C	CB	166	1H13P680	
1	20	C51R603D	PA105	IRM/APRM RECORDER D	CB	166	1H13P680	
1	18	C71N050A	P038	PRESS. TRANSMITTER	CTB	136	1H22P004	
1	18	C71N050B	A049	PRESS. TRANSMITTER	CTB	136	1H22P026	
1	18	C71N050C	A050	PRESS. TRANSMITTER	CTB	136	1H22P005	
1	18	C71N050D	P039	PRESS. TRANSMITTER	CTB	136	1H22P026	
1	20	C71N650A	P040	PRESS. INDICATING SWITCH	CB	189	1H13P691	
1	20	C71N650B	A051	PRESS. INDICATING SWITCH	CB	166	1H13P692	
1	20	C71N650C	A052	PRESS. INDICATING SWITCH	CB	189	1H13P693	
1	20	C71N650D	P041	PRESS. INDICATING SWITCH	CB	166	1H13P694	
1	21	E12B001A	P042	RHR HEAT EXCHANGER	AB	093	1A103	
1	21	E12B001B	A053	RHR HEAT EXCHANGER	AB	093	1A105	
1	21	E12B002A	P043	RHR HEAT EXCHANGER	AB	093	1A103	
1	21	E12B002B	A054	RHR HEAT EXCHANGER	AB	093	1A105	
1	08	E12C002A	P044	RHR PUMP & MOTOR	AB	093		
1	08	E12C002B	A055	RHR PUMP & MOTOR	AB	093		
1	08	E12C002C	A056	RHR PUMP & MOTOR	AB	093		
1	08	E12C003A	P045	RHR JOCKEY PUMP & MOTOR	AB	093	1A103	
1	08	E12C003B	A057	RHR JOCKEY PUMP & MOTOR	AB	093	1A105	
1	08	E12C003C	A058	RHR JOCKEY PUMP & MOTOR	AB	093	1A111B	
1	00	E12D007	P046	SUPP.POOL STR. FOR RHR PUMP B	CTB	103	1A110	
1	00	E12D008	A059	SUPP.POOL STR. FOR RHR PUMP B	CTB	103	1A110	
1	00	E12D009	A060	SUPP.POOL STR. FOR RHR PUMP C	CTB	103	1A110	
1	08	E12F003A	PA157	18" MO GLOBE SSTP VLV & MOTOR ACTUATOR	AB	093	1A102	
1	08	E12F003B	A061	18" MO GLOBE SSTP VLV & MOTOR ACTUATOR	AB	093	1A106	
1	08	E12F004A	A062	24" MO VALVE & MOTOR ACTUATOR	AB	093	1A103	
1	08	E12F004B	A063	24" MO VALVE & MOTOR ACTUATOR	AB	093	1A103	
1	08	E12F004C	PA159	24" MO VALVE & MOTOR ACTUATOR	AB	093	1A116	
1	08	E12F006A	PA242	18" MO GATE VALVE & MOTOR ACTUATOR	AB	119	1A203	
1	08	E12F006B	A064	18" MO GATE VALVE & MOTOR ACTUATOR	AB	119	1A025	
1	00	E12F008	ACB058	20"RHR SHUTDOWN SUCTION	AB	119	1A223	
1	00	E12F009	ACB059	20"RHR SHUTDOWN SUCTION	DW	120	1A112	
1	08	E12F018A	PA161	RHR PUMP MIN FLOW BYPASS ISO VLV	AB	093	1A103	

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	08	E12F018B	PA165	RHR PUMP C0028 MIN FLOW BYPASS ISO VLV	AB	093	1A105
1	08	E12F018C	PA163	RHR PUMP C003C FLOW BYPASS ISO VLV	AB	093	1A118
1	08	E12F023	CB011	6" RHR TO HEAD SPRAY	AB	119	1A210
1	08	E12F024A	P047	18" MO GATE VLV & MOTOR ACTUATOR	AB	093	1A103
1	08	E12F024B	A065	18" MO GATE VLV & MOTOR ACTUATOR	AB	093	1A105
1	08	E12F027A	CB012	MOTOR ACTUATOR/18" MO GATE VALVE	AB	119	1A203
1	08	E12F027B	PA169	MOTOR ACTUATOR/18" MO GATE VALVE	AB	119	1A205
1	08	E12F028A	CB013	MOTOR ACTUATOR/18" MO GATE VALVE	CTB	161	1A447
1	08	E12F028B	PA167	MOTOR ACTUATOR/18" MO GATE VALVE	CTB	161	1A445
1	08	E12F029A	CB014	16" GATE VALVE & GEAR ACTUATOR	AB	093	1A203
1	08	E12F029B	PA170	16" GATE VALVE & GEAR ACTUATOR	AB	093	1A106
1	08	E12F029C	PA172	16" GATE VALVE & GEAR ACTUATOR	AB	093	1A116
1	08	E12F037A	CB015	MOTOR ACTUATOR/12" MO GLOBE STP VALVE	CTB	161	1A447
1	08	E12F037B	CB016	MOTOR ACTUATOR/12" MO GLOBE STP VALVE	CTB	161	1A445
1	08	E12F039C	PA174	12" GATE VALVE & GEAR ACTUATOR	CTB	135	1A112
1	20	E12F041B	PA158	LPCI B TESTABLE CHECK VALVE	DW	120	1A445
1	00	E12F041C	PA156	LPCI C TESTABLE CHECK VALVE	DW	166	1A445
1	08	E12F042A	CB017	MOTOR ACTUATOR/14" MO GATE VALVE	CTB	135	1A313
1	08	E12F042B	A066	MOTOR ACTUATOR/14" MO GATE VALVE	CTB	135	1A311
1	08	E12F042C	A067	MOTOR ACTUATOR/12" MO GATE VALVE	AB	119	1A220
1	08	E12F047A	PA175	MOTOR ACTUATOR/18" MO VALVE	AB	139	1A303
1	08	E12F047B	PA246	18" MO VALVE & MOTOR ACTUATOR	AB	139	1A307
1	21	E12F048	PA178	RHR A HEAT EXCHANGE BYPASS	AB	112	1A102
1	08	E12F048A	P048	18" MO GLOBE STP VLV & MOTOR ACTUATOR	AB	093	1A102
1	08	E12F048B	P068	18" MO GLOBE STP VLV & MOTOR ACTUATOR	AB	093	1A106
1	08	E12F053B	A069	12" MO GLOBE STOP VALVE	AB	119	1A205
1	08	E12F055A	P049	SAFETY RELIEF VALVE	AB	139	1A304
1	08	E12F055B	PA274	SAFETY RELIEF VALVE	AB	139	1A307
1	08	E12F064A	P050	4" MO VALVE/MOTOR ACTUATOR	AB	093	1A118
1	08	E12F064B	A070	4" MO VALVE/MOTOR ACTUATOR	AB	093	1A106
1	08	E12F064C	A071	4" MO VALVE	AB	093	1A118
1	08	E12F120A	PA180	18" GATE VALVE & GEAR ACTUATOR	AB	139	1A303
1	08	E12F120B	PA248	18" GATE VALVE & GEAR ACTUATOR	AB	139	1A306
1	08	E12F130A	PA182	18" GATE VALVE & GEAR ACTUATOR	AB	119	1A205
1	08	E12F130B	PA288	18" GATE VALVE & GEAR ACTUATOR	AB	119	1A206
1	00	E12F394	CB018	6" RHR TO HEAD SPRAY	CTB	133	1A112
1	18	E12N015A	P051	FLOW TRANSMITTER	AB	103	1H22P018
1	18	E12N015B	A072	FLOW TRANSMITTER	AB	103	1H22P021
1	18	E12N052A	P052	FLOW TRANSMITTER	AB	103	1H22P018
1	18	E12N052B	PA184	FLOW TRANSMITTER	AB	103	1H22P021
1	18	E12N052C	A073	FLOW TRANSMITTER	AB	093	1H22P055
1	18	E12N055B	A074	PRESSURE TRANSMITTER	AB	103	1H22P021
1	18	E12N056B	A075	PRESSURE TRANSMITTER	AB	103	1H22P021
1	20	E12N102A	P053	LIMIT SWITCH	AB	093	1E12F004A
1	20	E12N102B	A076	LIMIT SWITCH	AB	093	1E12F004B
1	20	E12N102C	PA250	LIMIT SWITCH	AB	093	1E12F004B
1	20	E12N103	A077	POSITION SWITCH (RG 1.97)	CTB	120	1E12F009
1	20	E12N104	A078	POSITION SWITCH (RG 1.97)	AB	119	1E12F008
1	20	E12N105B	A079	LIMIT SWITCH	AB	119	1E12F006B
1	20	E12N106A	P054	LIMIT SWITCH	AB	139	1E12F047A
1	20	E12N109A	P055	LIMIT SWITCH	AB	139	1E12F042A
1	20	E12N109B	A080	LIMIT SWITCH	AB	139	1E12F042B
1	20	E12N109C	A081	LIMIT SWITCH	AB	119	1E12F042C
1	20	E12N113B	A082	POSITION SWITCH	CTB	120	1E12F041B
1	20	E12N113C	A083	POSITION SWITCH	CTB	135	1E12F041C
1	20	E12N115B	A084	LIMIT SWITCH	AB	119	1E12F053B
1	20	E12N117A	P06	POSITION TRANSMITTER	AB	093	1E12F003A
1	20	E12N117B	A085	POSITION TRANSMITTER	AB	093	1E12F003B
1	20	E12N118A	P057	POSITION TRANSMITTER	AB	093	1E12F028A
1	18	E12N118B	A086	POSITION TRANSMITTER	AB	093	1E12F028B
1	20	E12N121A	P058	LIMIT SWITCH	AB	093	1E12F064A

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col.
1	20	E12N121B	A087	LIMIT SWITCH	AB	093	1E12F064B
1	20	E12N121C	A088	LIMIT SWITCH	AB	093	1E12F064C
1	20	E12N122A	P059	POSITION SWITCH (RG 1.97)	AB	093	1E12F024A
1	20	E12N122B	A089	POSITION SWITCH (RG 1.97)	AB	093	1E12F024B
1	20	E12N652A	P060	FLOW INDICATING SWITCH	CB	189	1H13P629
1	20	E12N652B	A090	FLOW INDICATING SWITCH	CB	166	1H13P618
1	20	E12N652C	A091	FLOW INDICATING SWITCH	CB	166	1H13P618
1	20	E12N655B	A092	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	E12N656B	A093	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	E12R603A	P061	FLOW INDICATOR	CB	166	1H13P601
1	20	E12R603B	A094	FLOW INDICATOR	CB	166	1H13P601
1	20	E12R603C	A095	INDICATOR UNIT	CB	166	1H13P601
1	20	E12R611A	P062	POSITION INDICATOR	CB	166	1H13P601
1	20	E12R612A	P063	POSITION INDICATOR	CB	166	1H13P601
1	20	E12R612B	A096	POSITION INDICATOR	CB	166	1H13P601
1	01	E20S530A-A	PA173	LOAD CENTER UNIT SUBSTATION/MCC15B31			
1	01	E20S540A-A	PA293	LOAD CENTER UNIT SUBSTATION/MCC15B41			
1	08	E21C001	PA187	LPCS PUMP & MOTOR	AB	093	1A119
1	08	E21F001	PA276	24" NO VALVE & MOTOR ACTUATOR	AB	093	1A115
1	08	E21F011	PA143	4" NO GATE VALVE & MOTOR ACTUATOR	AB	093	1A115
1	20	E21N651	PA252	LPCS PUMP DIS FLOW SWITCH	CB	189	1H13P629
1	06	E22C001	PA149	HPCS PUMP & MOTOR	AB	093	
1	00	E22D008	PA148	SUPPRESSION POOL STR. FOR HPCS PUMP	CTB		
1	08	E22F001	PA234	CONDENSATE STORAGE FEED VALVE	AB		1A123
1	08	E22F004	CB019	12" HPCS PUMP DISCHARGE	AB		1A205
1	08	E22F010	PA284	CONDENSATE TEST LOOP VALVE	AB	100	1A109
1	08	E22F011	PA232	CONDENSATE TEST LOOP VALVE	AB	100	1A123
1	08	E22F012	PA266	BYPASS VALVE	AB	100	1A109
1	08	E22F015	PA230	SUPPRESSION POOL VALVE	AB	100	1A109
1	08	E22F023	PA292	BYPASS VALVE	AB	093	1A109
1	20	E22N054C	PA228	DIFFERENTIAL PRESSURE TRANSMITTER	AB	119	1A201
1	20	E22N054G	PA264	DIFFERENTIAL PRESSURE TRANSMITTER	AB	119	1A201
1	20	E22N656	PA226	FLOW INDICATOR SWITCH	CB	166	0C504
1	08	E30F001A	PA064	30" MO BUTTERFLY VLV & MOTOR ACTUATOR	CTB	161	1A447
1	08	E30F002A	PA065	30" MO BUTTERFLY VLV & MOTOR ACTUATOR	CTB	161	1A447
1	20	E30N001A	PA066	LIMIT SWITCH	CTB	161	1E30F001A
1	20	E30N002A	PA067	LIMIT SWITCH	CTB	161	1E30F002A
1	20	E30N003A	PA068	LEVEL TRANSMITTER	AB	093	1A115
1	18	E30N003C	PA069	LEVEL TRANSMITTER	AB	093	1A115
1	18	E30N004A	PA070	LEVEL TRANSMITTER	AB	093	1A115
1	18	E30N004B	A097	LEVEL TRANSMITTER	AB	093	1A116
1	20	E30N600A	PA071	LEVEL INDICATING SWITCH	CB	189	1H13P871
1	20	E30N600C	PA072	LEVEL INDICATING SWITCH	CB	189	1H13P871
1	20	E30N601A	PA073	LEVEL INDICATING SWITCH	CB	189	1H13P871
1	20	E30N601B	A098	LEVEL INDICATING SWITCH	CB	166	1H13P872
1	20	E30R600A	P074	STRIP CHART RECORDER (RG 1.97)	CB	166	1H13P870
1	20	E30R600B	A099	STRIP CHART RECORDER (RG 1.97)	CB	166	1H13P870
1	19	E31N001A	P075	AIR TEMPERATURE ELEMENT	AB	093	1A103
1	19	E31N001B	P076	AIR TEMPERATURE ELEMENT	AB	093	1A105
1	19	E31N002A	P077	AIR TEMPERATURE ELEMENT	AB	093	1A304
1	19	E31N002B	P078	AIR TEMPERATURE ELEMENT	AB	093	1A306
1	19	E31N003A	P079	AIR TEMPERATURE ELEMENT	AB	093	1A303
1	19	E31N003B	P080	AIR TEMPERATURE ELEMENT	AB	093	1A307
1	19	E31N004A	P081	AIR TEMPERATURE ELEMENT	AB	093	1A104
1	19	E31N004B	P082	AIR TEMPERATURE ELEMENT	AB	093	1A104
1	19	E31N005A	P083	AIR TEMPERATURE ELEMENT	AB	093	1A209
1	19	E31N005B	P084	AIR TEMPERATURE ELEMENT	AB	093	1A209
1	19	E31N006A	P085	AIR TEMPERATURE ELEMENT	AB	093	1A210
1	19	E31N006B	P086	AIR TEMPERATURE ELEMENT	AB	093	1A210
1	19	E31N018A	P087	AIR TEMPERATURE ELEMENT	AB	093	1A103
1	19	E31N018B	P088	AIR TEMPERATURE ELEMENT	AB	093	1A105

TABLE 1 BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	19	E31N027A	P089	AIR TEMPERATURE ELEMENT	AB	093	1A103
1	19	E31N027B	P090	AIR TEMPERATURE ELEMENT	AB	093	1A105
1	19	E31N028A	P091	AIR TEMPERATURE ELEMENT	AB	093	1A302
1	19	E31N028B	P092	AIR TEMPERATURE ELEMENT	AB	093	1A306
1	19	E31N029A	P093	AIR TEMPERATURE ELEMENT	AB	139	1A302
1	19	E31N029B	P094	AIR TEMPERATURE ELEMENT	AB	139	1A304
1	19	E31N030A	P095	AIR TEMPERATURE ELEMENT	AB	139	1A302
1	19	E31N030B	P096	AIR TEMPERATURE ELEMENT	AB	139	1A305
1	19	E31N031A	P097	AIR TEMPERATURE ELEMENT	AB	139	1A305
1	19	E31N031B	P098	AIR TEMPERATURE ELEMENT	AB	139	1A305
1	18	E31N083A	P099	DIFF PRESSURE TRANSMITTER	AB	103	1H22P017
1	18	E31N083B	P100	DIFF PRESSURE TRANSMITTER	AB	103	1H22P021
1	18	E31N084A	P101	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P004
1	18	E31N084B	P102	LEVEL TRANSMITTER	CTB	136	1H22P015
1	18	E31N085A	P103	PRESSURE TRANSMITTER	CTB	136	1H22P004
1	18	E31N085B	P104	PRESSURE TRANSMITTER	CTB	136	1H22P015
1	18	E31N086A	PA106	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P015
1	18	E31N086B	PA107	DIFF PRESSURE TRANSMITTER	CTB	136	1A313
1	18	E31N086C	PA108	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P042
1	18	E31N086D	PA109	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P042
1	18	E31N087A	PA110	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P025
1	18	E31N087B	PA111	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P025
1	18	E31N087C	PA112	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P041
1	18	E31N087D	PA113	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P041
1	18	E31N088A	PA114	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P015
1	18	E31N088B	PA115	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P015
1	18	E31N088C	PA116	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P042
1	18	E31N088D	PA117	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P042
1	18	E31N089A	PA118	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P025
1	18	E31N089B	PA119	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P025
1	18	E31N089C	PA120	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P041
1	18	E31N089D	PA121	DIFF PRESSURE TRANSMITTER	CTB	136	1H22P041
1	20	E31N600A	P105	TEMP DIFF SWITCH	CB	189	1H13P632
1	20	E31N600B	P106	TEMP SWITCH	CB	166	1H13P642
1	20	E31N602A	P107	TEMP SWITCH	CB	189	1H13P632
1	20	E31N602B	P108	TEMP SWITCH	CB	166	1H13P642
1	20	E31N603A	P109	TEMP DIFF SWITCH	CB	189	1H13P632
1	20	E31N603B	P110	TEMP SWITCH	CB	166	1H13P642
1	20	E31N604E	P111	TEMP SWITCH	CB	189	1H13P632
1	20	E31N604F	P112	TEMP SWITCH	CB	166	1H13P642
1	20	E31N605E	P113	TEMP DIFF SWITCH	CB	189	1H13P632
1	20	E31N605F	P114	TEMP DIFF SWITCH	CB	166	1H13P642
1	20	E31N608A	P115	TEMP SWITCH	CB	189	1H13P632
1	20	E31N608B	P116	TEMP SWITCH	CB	166	1H13P642
1	20	E31N610A	P117	TEMP SWITCH	CB	189	1H13P632
1	20	E31N610B	P118	TEMP SWITCH	CB	166	1H13P642
1	20	E31N611A	P119	TEMP DIFF SWITCH	CB	189	1H13P632
1	20	E31N611B	P120	TEMP DIFF SWITCH	CB	166	1H13P642
1	20	E31N683A	P121	PRESS DIFF INICATING SWITCH	CB	189	1H13P629
1	20	E31N683B	P122	PRESS DIFF INICATING SWITCH	CB	166	1H13P618
1	20	E31N684A	P123	PRESS DIFF INICATING SWITCH	CB	189	1H13P629
1	20	E31N684B	P124	PRESS DIFF INICATING SWITCH	CB	166	1H13P618
1	20	E31N685A	P125	PRESS INDICATING SWITCH	CB	189	1H13P629
1	20	E31N685B	P126	PRESS INDICATING SWITCH	CB	166	1H13P618
1	20	E31N686A	PA122	PRESS DIFF INDICATING SWITCH	CB	189	1H13P691
1	20	E31N686B	PA123	PRESS DIFF INDICATING SWITCH	CB	166	1H13P692
1	20	E31N686C	PA124	PRESS DIFF INDICATING SWITCH	CB	189	1H13P693
1	20	E31N686D	PA125	PRESS DIFF INDICATING SWITCH	CB	166	1H13P694
1	20	E31N687A	PA126	PRESS DIFF INDICATING SWITCH	CB	189	1H13P691
1	20	E31N687B	PA127	PRESS DIFF INDICATING SWITCH	CB	166	1H13P692
1	20	E31N687C	PA128	PRESS DIFF INDICATING SWITCH	CB	189	1H13P693

TABLE 1							
BASE LIST							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	20	E31N687D	PA129	PRESS DIFF INDICATING SWITCH	CB	166	1H13P694
1	20	E31N688A	PA130	PRESS DIFF INDICATING SWITCH	CB	189	1H13P691
1	20	E31N688B	PA131	PRESS DIFF INDICATING SWITCH	CB	166	1H13P692
1	20	E31N688C	PA132	PRESS DIFF INDICATING SWITCH	CB	189	1H13P693
1	20	E31N688D	PA133	PRESS DIFF INDICATING SWITCH	CB	166	1H13P694
1	20	E31N689A	PA134	PRESS DIFF INDICATING SWITCH	CB	189	1H13P691
1	20	E31N689B	PA135	PRESS DIFF INDICATING SWITCH	CB	166	1H13P692
1	20	E31N689C	PA136	PRESS DIFF INDICATING SWITCH	CB	189	1H13P693
1	20	E31N689D	PA137	PRESS DIFF INDICATING SWITCH	CB	166	1H13P694
1	20	E31N690A	P127	PRESS. DIFF. SWITCH	CB	189	1H13P629
1	20	E31N691A	P129	PRESS. DIFF. SWITCH	CB	166	1H13P618
1	20	E31N691B	P130	PRESS. DIFF. SWITCH	CB	166	1H13P629
1	20	E31N69B	P128	PRESS. DIFF. SWITCH	CB	166	1H13P618
1	20	E31R617E	P131	PRESS. DIFF. SWITCH	CB	189	1H13P632
1	20	E31R617F	P132	PRESS. DIFF. SWITCH	CB	166	1H13P642
1	08	E32F001A	CB020	1.5" MAIN STEAM A	AB	139	1A305
1	08	E32F001E	CB021	1.5" MAIN STEAM B	AB	139	1A305
1	08	E32F001J	CB022	1.5" MAIN STEAM C	AB	139	1A305
1	08	E32F001N	CB023	1.5" MAIN STEAM D	AB	139	1A305
1	08	E38F001A	PA282	FEEDWATER LEAKAGE CONTROL VALVE	ST	139	1A305
1	08	E38F001B	PA224	FEEDWATER LEAKAGE CONTROL VALVE	ST	139	1A305
1	20	E38F001E	P133	POSITION SWITCH		139	1E38F001A
1	20	E38F001J	A100	POSITION SWITCH	AB	139	1E38F001B
1	05	E51C001	P134	RX CORE ISO COOLING PUMP	AB	093	1A104
1	20	E51C002	P135	RCIC TURBINE GLAND SEAL COMPRESSOR	AB	093	1A104
1	00	E51C002-2A	P136	RCIC TURBINE			
1	08	E51F010	P137	MOTOR ACTUATOR/6" MO GLOBE VALVE	AB	093	1A101
1	08	E51F013	P138	MOTOR ACTUATOR/6" MO GLOBE VALVE	AB	093	1A104
1	08	E51F015	P139	2" NUCLEAR SERVICE CONTROL VALVE	AB	093	1A104
1	08	E51F016	P140	RCIC PUMP SUCT ISO VALVE	AB	093	1A104
1	08	E51F019	P141	MOTOR ACTUATOR/2" MO GLOBE STOP VALVE	AB	093	1A104
1	08	E51F031	P142	MOTOR ACTUATOR/6" MO GLOBE VALVE	AB	093	1A104
1	00	E51F032	P143	RCIC C001 SUCTION LINE	AB	093	1A104
1	08	E51F045	P144	MOTOR ACTUATOR/6" MO GLOBE VALVE	AB	093	1A104
1	08	E51F046	P145	MOTOR ACTUATOR/6" MO GLOBE VALVE	AB	093	1A104
1	21	E51F063	PCB140	10" STEAM SPLY RCIC TURBIN & RHR HT EX	CTB	135	1A112
1	21	E51F064	PCB141	10" STEAM SPLY RCIC TURBIN & RHR HT EX	CTB	139	1A305
1	21	E51F076	PCB142	1" STEAM SPLY RCIC TURBIN & RHR HT EX	CTB	144	1A112
1	08	E51F095	P146	MOTOR ACTUATOR/2" MO GLOBE STOP VALVE	AB	093	1A104
1	08	E51F200	P147	6" GATE VLV & GEAR ACTUATOR	AB	189	1A104
1	08	E51GOV VLV	P148		AB		
1	00	E51N001	P150	RCIC PUMP DISCH FLOW	AB	093	1A104
1	21	E51N035A	P151	CONDENSATE STORAGE TANK	AB	119	1A201
1	21	E51N035E	P152	CONDENSATE STORAGE TANK	AB	119	1A201
1	18	E51N036A	P153	LEVEL TRANSMITTER	AB	103	1A114
1	18	E51N036E	P154	LEVEL TRANSMITTER	AB	103	1A114
1	18	E51N050	P155	PRESSURE TRANSMITTER	AB	103	1H22P017
1	18	E51N051	P156	FLOW TRANSMITTER	AB	103	1H22P017
1	18	E51N055A	P157	PRESSURE TRANSMITTER	AB	103	1H22P017
1	18	E51N055B	P158	PRESSURE TRANSMITTER	AB	103	1H22P021
1	18	E51N055E	P159	PRESSURE TRANSMITTER	AB	103	1H22P017
1	18	E51N055F	P160	PRESSURE TRANSMITTER	AB	103	1H22P021
1	18	E51N056A	P161	PRESSURE TRANSMITTER	AB	103	1H22P017
1	18	E51N056E	P162	PRESSURE TRANSMITTER	AB	103	1H22P017
1	20	E51N100	P163	POSITION SWITCH	AB	093	1E51F031
1	20	E51N101	P164	LIMIT SWITCH	AB	093	1E51F013
1	20	E51N104	P165	LIMIT SWITCH	AB	093	1E51F010
1	20	E51N106	P166	LIMIT SWITCH	AB	093	1E51F019
1	20	E51N111	P167	LIMIT SWITCH	AB	093	1E51F045
1	20	E51N112	P168	LIMIT SWITCH	AB	093	1E51C002
1	20	E51N113	P169	POSITION SWITCH	AB	093	1E51C002

TABLE 11 BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	20	E51N117	P170	POSITION SWITCH	AB	093	1E51F046
1	20	E51N142A	P171	POSITION SWITCH	AB	093	1E51C002
1	20	E51N635A	P172	CONDENSATE STRG TK LEVEL LOW SWITCH	CB	189	1H13P629
1	20	E51N635E	P173	CONDENSATE STRG TK LEVEL LOW SWITCH	CB	189	1H13P629
1	20	E51N636A	P174	LEVEL INDICATING SWITCH	CB	189	1H13P629
1	20	E51N636E	P175	LEVEL INDICATING SWITCH	CB	189	1H13P629
1	20	E51N650	P176	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	18	E51N651	P177	TRIP UNIT	CB	189	1H13P629
1	20	E51N655A	P178	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	E51N655B	P179	PRESSURE INDICATING SWITCH	CB	166	1H13P618
1	20	E51N655E	P180	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	E51N655F	P181	TRIP UNIT MASTER	CB	189	1H13P618
1	20	E51N656A	P182	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	E51N656E	P183	PRESSURE INDICATING SWITCH	CB	189	1H13P629
1	20	E51R600	P184	FLOW INDICATING UNIT	CB	166	1H13P629
1	20	E51R602	P185	RCIC TURB STM IN PRESS	CB	166	1H13P601
1	20	E51R606	P186	FLOW INDICATING UNIT	CB	166	1H13P601
1	20	E51R659	P187	FLOW SWITCH HIGH	CB	189	1H13P629
1	05	E51TT VLV	P188	INSTALL ON E51C001			
1	12	E61C001A	PA222	DRYWELL PURGE COMPRESSOR	CTB	184	
1	20	E61C001B	PA199	DRYWELL PURGE COMPRESSOR	CTB	184	1A512
1	08	E61F007	CB024	AIR ACTUATOR/8" AO BUTTERFLY VALVE	CTB	184	1A509
1	08	E61F009	CB025	AIR ACTUATOR/6" AO BUTTERFLY VALVE	AB	166	1A405
1	08	E61F010	CB026	AIR ACTUATOR/6" AO BUTTERFLY VALVE	CTB	161	1A445
1	08	E61F020	CB027	AIR ACTUATOR/8" AO GATE VALVE	CTB	184	1A509
1	08	E61F056	CB028	AIR ACTUATOR	CTB	161	1A445
1	08	E61F057	CB029	6" AO BUTTERFLY VALVE	AB	166	1A405
1	00	G33F001	CB030	MOTOR ACTUATOR/6" MO GATE VALVE	CTB	139	1A112
1	00	G33F004	CB031	MOTOR ACTUATOR/6" MO GATE VALVE	AB	135	1A305
1	00	G33F028	CB032	MOTOR ACTUATOR/4" MO GATE VALVE	CTB	135	1A310
1	00	G33F034	CB033	MOTOR ACTUATOR/4" MO GATE VALVE	AB	139	1A305
1	08	G33F039	CB034	MOTOR ACTUATOR/6" MO GATE VALVE	AB	139	1A305
1	08	G33F040	CB035	MOTOR ACTUATOR/6" MO GATE VALVE	CTB	135	1A310
1	08	G33F053	CB036	4" RWCU PUMP DISCHARGE	CTB	161	1A310
1	08	G33F054	CB037	MOTOR ACTUATOR/4" MO GATE VALVE	AB	161	1A305
1	08	G33F250	CB038	MOTOR ACTUATOR/6" MO GATE VALVE	CTB	161	1A112
1	08	G33F251	CB039	MOTOR ACTUATOR/6" MO GATE VALVE	CTB	161	1A414
1	00	G33F252	CB040	6" RWCU PUMP SUCTION	CTB	161	1A112
1	08	G33F253	CB041	MOTOR ACTUATOR/6" MO GATE VALVE	CTB	161	1A414
1	08	G36F101	CB0857	AIR ACTUATOR/4" AO GATE VALVE	AB	119	1A225
1	08	G36F106	CB042	AIR ACTUATOR/4" AO GATE VALVE	CTB	135	1A310
1	21	G41B001A	P189	FUEL POOL HEAT EXCHANGER	AB	185	1A527
1	21	G41B001B	A101	FUEL POOL HEAT EXCHANGER	AB	185	1A527
1	08	G41F028	CB043	MOTOR ACTUATOR/8" MO GLOBE STOP VALVE	AB	185	1A527
1	08	G41F029	CB044	MOTOR ACTUATOR/8" MO VALVE	AB	185	1A527
1	08	G41F044	CB045	MOTOR ACTUATOR/8" MO GATE VALVE	CTB	184	1A520
1	20	H13P601	PA295	LEVEL RECORDER (RG1.97)	CB	166	OC503
1	18	H13P618	PA220	TRIP UNIT	CB	166	OC504
1	18	H13P625	PA260	HPCS RELAY VB			
1	18	H13P629	PA218	TRIP UNIT	CB	189	OC703
1	18	H13P632	PA280	TEMP DIFF SWITCH	CB	189	OC703
1	18	H13P642	PA216	TEMP SWITCH	CB	166	OC504
1	18	H13P669	PA258	POWER RANGE MONITOR A	CB	189	OC703
1	18	H13P670	PA214	POWER RANGE MONITOR B	CB	166	OC504
1	18	H13P680	PA290	1 RM/APRM RECORDER A	CB	166	OC503
1	18	H13P691	PA212	PRESSURE INDICATING SWITCH	CB	189	OC703
1	18	H13P692	PA256	TRIP UNIT	CB	166	OC504
1	18	H13P693	PA210	PRESSURE INDICATING SWITCH	CB	189	OC703
1	18	H13P694	PA278	PRESSURE INDICATING SWITCH	CB	166	OC504
1	18	H13P871	PA208	TEMP TRANSMITTER	CB	166	OC 703
1	18	H13P872	PA194	LEVEL INDICATING SWITCH	CB	166	OC504

TABLE 1 BASE LIST							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	20	H22P004	PA294	LEVEL TRANSMITTER	CTB	136	1A313
1	20	H22P005	PA191	PRESSURE TRANSMITTER	CTB	136	1A313
1	20	H22P015	PA189	LEVEL TRANSMITTER	CTB	136	1A313
1	20	H22P017	PA154	DIDD PRESSURE TRANSMITTER	AB	103	1A121
1	20	H22P018	PA153	FLOW TRANSMITTER	AB	103	1A101
1	20	H22P021	PA150	FLOW TRANSMITTER	AB	103	1A101
1	20	H22P025	PA303	DIFF PRESSURE TRANSMITTER	CTB	136	1A311
1	20	H22P026	PA310	LEVEL TRANSMITTER	CTB	136	1A311
1	20	H22P027	PA305	LEVEL TRANSMITTER	CTB	136	
1	20	H22P041	PA311	DIFF PRESSURE TRANSMITTER	CTB	136	1A311
1	20	H22P042	PA307	DIFF PRESSURE TRANSMITTER	CTB	136	1A313
1	20	H22P055	PA312	FLOW TRANSMITTER	AB	093	1A117
1	20	H22P113	P190	STBY OG GENERATOR CONTROL PANEL	DG	136	1D310
1	20	H22P115	A102	STBY OG GENERATOR CONTROL PANEL	DG	136	1D310
1	20	H22P150	P191	REMOTE SHUTDOWN PANEL	CB	111	OC208
1	20	H22P151	A103	REMOTE SHUTDOWN PANEL	CB	111	
1	20	H22P152	P192	TRANSFER PANEL	AB	111	OC208
1	20	H22P295	P193	ALTERNATE SHUTDOWN PANELS	AB	119	1A208
1	20	H22P296	P194	ALTERNATE SHUTDOWN PANELS	AB	119	1A219
1	20	H22P298	P195	ALTERNATE SHUTDOWN PANELS	AB	166	1A410
1	20	H22P299	P196	ALTERNATE SHUTDOWN PANELS	CB	111	OC208
1	20	H22P331	P197	DIV 2 LOAD SHED SEQ PANEL	CB	111	OC202
1	20	H22P332	A104	DIV 2 LOAD SHED SEQ PANEL	CB	111	OC202
1	20	H22P400	P198	STBY OG GENERATOR CONTROL PANEL	DG	133	1D310
1	20	H22P401	A105	STBY OG GENERATOR CONTROL PANEL	DG	133	1D308
1	15	L11S001	P199	BATTERY 1A3	CB	111	OC207
1	15	L11S002	A106	BATTERY 1A3	CB	111	OC211
1	15	L21A111	P200	DC BUS 11DA	AB	111	OC208
1	16	L51S001A	A107	BATT CHGR 1DA4	CB	111	OC202
1	16	L51S001B	P201	BATT CHGR 1DA5	CB	111	OC202
1	16	L51S002A	A108	BATT CHGR 1DB4	CB	111	OC202
1	16	L51S002B	A109	BATT CHGR 1DB5	CB	111	OC213
1	14	L62-1Y84	A110	UPS DISTRIBUTION PNL			
1	14	L62-1Y85	P202	UPS DISTRIBUTION PNL			
1	14	L62-1Y86	A110	UPS DISTRIBUTION PNL			
1	14	L62-1Y89	P203	UPS DISTRIBUTION PNL			
1	16	L62S187	P204	STATIC INVERTER 1Y87	CB	111	OC202
1	16	L62S188	A112	STATIC INVERTER 1Y88	CB	111	OC215
1	16	L62S195	A113	STATIC INVERTER 1Y95	CB	111	OC215
1	16	L62S196	P205	STATIC INVERTER 1Y96	CB	111	CO202
1	00	M23Y001	PA138	LOWER CTMT PERS AIRLOCK	CTB	119	1A215
1	00	M23Y002	PA141	UPPER CTMT PERS AIRLOCK	CTB	208	1A603
1	00	M23Y003	PA140	CTMT EQUIP HATCH	CTB	172	
1	08	M41F011	CB046	AIR ACTUATOR/20" AO BUTTERFLY VALVE	AB	166	1A405
1	08	M41F012	CB047	AIR ACTUATOR/20" AO BUTTERFLY VALVE	CTB	161	1A445
1	08	M41F013	CB048	AIR ACTUATOR/20" AO BUTTERFLY VALVE	CTB	161	1A445
1	08	M41F015	CB049	AIR ACTUATOR/20" AO BUTTERFLY VALVE	CTB	161	1A112
1	08	M41F016	CB050	AIR ACTUATOR/20" AO BUTTERFLY VALVE	CTB	161	1A445
1	08	M41F017	CB051	AIR ACTUATOR/20" AO BUTTERFLY VALVE	CTB	161	1A445
1	08	M41F034	CB052	AIR ACTUATOR/20" AO BUTTERFLY VALVE	CTB	161	1A445
1	08	M41F035	CB053	AIR ACTUATOR/20" AO BUTTERFLY VALVE	AB	166	1A405
1	00	M61F101	CB054	.75" REACTOR RCIC POST ACCIDENT SAMPLE			
1	19	M71N007A	P206	TEMP. ELEMENT	CTB	135	1A313
1	19	M71N007B	A114	TEMP. ELEMENT	CTB	135	A1311
1	19	M71N007C	P207	TEMP. ELEMENT	CTB	135	1A313
1	19	M71N007D	A115	TEMP. ELEMENT	CTB	135	1A311
1	19	M71N008A	P208	TEMP. ELEMENT	DW	161	1A112
1	19	M71N008B	A116	TEMP. ELEMENT	DW	161	1A112
1	19	M71N008C	P209	TEMP. ELEMENT	DW	161	1A112
1	19	M71N008D	A117	TEMP. ELEMENT	DW	161	1A112
1	19	M71N012A	P210	TEMP. ELEMENT	CTB	135	1A313

TABLE 1								
BASE LIST 1								
UNIT	SQUG/ EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor/ Elev.	Room or Row/Col	
1	19	M71N012B	A118	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N013A	P211	TEMP. ELEMENT	DW	094	1A112	
1	19	M71N013B	A119	TEMP. ELEMENT	DW	094	1A112	
1	19	M71N013C	P212	TEMP. ELEMENT	DW	094	1A112	
1	19	M71N013D	A120	TEMP. ELEMENT	DW	094	1A112	
1	19	M71N022A	P213	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N022B	A121	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N023A	O214	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N023B	A122	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N024A	P215	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N024B	A123	TEMP. ELEMENT	CTB	135	1A313	
1	19	M71N025A	P216	TEMP. ELEMENT	CTB	135	1A311	
1	19	M71N025B	A124	TEMP. ELEMENT	CTB	135	1A311	
1	19	M71N026B	A125	TEMP. ELEMENT	CTB	135	1A311	
1	20	M71N027A	PA268	TEMP. TRANSMITTER	AB	161	1H13P871	
1	20	M71N027B	PA236	TEMP. TRANSMITTER	AB	161	1H13P872	
1	20	M71N027C	PA296	TEMP. TRANSMITTER	AB	189	1H13P871	
1	20	M71N027D	PA238	TEMP. TRANSMITTER	AB	166	1H13P872	
1	20	M71N602A	P217	STRIP CHART RECORDER (RG. 1.97)	CB	166	1H13P870	
1	20	M71N602B	A126	STRIP CHART RECORDER (RG. 1.97)	CB	166	1H13P870	
1	20	M71N603A	P218	TEMP. INDICATOR SWITCH/STRIP CHART RECOR	CB	189	1H13P871	
1	20	M71N603B	A127	TEMP. INDICATOR SWITCH/STRIP CHART RECOR	CB	166	1H13P872	
1	20	M71N605A	P219	TEMP. TRANSMITTER/STRIP CHART RECORDER	CB	189	1H13P871	
1	20	M71N605B	A128	TEMP. TRANSMITTER/STRIP CHART RECORDER	CB	166	1H13P872	
1	20	M71N605C	P220	TEMP. TRANSMITTER/STRIP CHART RECORDER	CB	189	1H13P871	
1	20	M71N605D	A129	TEMP. TRANSMITTER/STRIP CHART RECORDER	CB	166	1H13P872	
1	20	M71N606A	P221	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N606B	A130	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N607A	P222	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N607B	A131	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N607C	P223	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N607D	A132	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N612A	P224	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N612B	A133	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N613A	P225	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N613B	A134	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N614A	P226	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N614B	A135	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N615A	P227	TEMP. TRANSMITTER	CB	189	1H13P871	
1	20	M71N615B	A136	TEMP. TRANSMITTER	CB	166	1H13P871	
1	20	M71N616A	P228	TEMP. TRANSMITTER	CB	189	1H13P872	
1	20	M71N616B	A137	TEMP. TRANSMITTER	CB	166	1H13P872	
1	20	M71N622A	P229	TEMP. INDICATOR SWITCH	CB	189	1H13P871	
1	20	M71N622B	A138	TEMP. INDICATOR SWITCH	CB	166	1H13P872	
1	20	M71N623A	P230	TEMP. INDICATOR SWITCH	CB	189	1H13P871	
1	20	M71N623B	A139	TEMP. INDICATOR SWITCH	CB	166	1H13P872	
1	20	M71N624A	P231	TEMP. INDICATOR SWITCH	CB	189	1H13P871	
1	20	M71N624B	A140	TEMP. INDICATOR SWITCH	CB	166	1H13P872	
1	20	M71N625A	P232	ELECTRONIC INST. TRIP UNIT/TEMP IND SWI	CB	189	1H13P871	
1	20	M71N625B	A141	ELECTRONIC INST. TRIP UNIT/TEMP IND SWI	CB	166	1H13P872	
1	20	M71N626A	P233	ELECTRONIC INST. TRIP UNIT/TEMP IND SWI	CB	189	1H13P871	
1	20	M71N626B	A142	ELECTRONIC INST. TRIP UNIT/TEMP IND SWI	CB	166	1H13P872	
1	08	P11F075	CB055	AIR ACTUATOR/6" AO GATE VALVE	AB	139	1A319	
1	08	P11F130	CB056	AIR ACTUATOR/12" AO BUTTERFLY VALVE	AB	093	1A115	
1	08	P11F131	CB057	AIR ACTUATOR/12" AO BUTTERFLY VALVE	AB	093	1A115	
1	08	P21F017	CB058	MOTOR ACTUATOR/2" MO GLOBE VALVE	AB	166	1A428	
1	08	P21F018	CB059	MOTOR ACTUATOR/2" MO GLOBE VALVE	AB	161	1A446	
1	06	P41C001A	P234	SSW MOTOR A & SSW PUMP A	SWW	133	1M110	
1	06	P41C001B	A143	SSW MOTOR A & SSW PUMP B	SWW	133	2M110	
1	06	P41C002C	PA309	HPCS SERVICE WATER PUMP	SWW	133	1M111	
1	09	P41C003A	P235	SSW COOLING TWR FAN	SWW	133		

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	09	P41C003B	P236	SSW COOLING TWR FAN	SWW	133	
1	09	P41C003C	A144	SSW COOLING TWR FAN	SWW	133	
1	09	P41C003D	A145	SSW COOLING TWR FAN	SWW	133	
1	08	P41F001A	P237	MOTOR ACTUATOR/24" BUTTERFLY VALVE	YD	132	1M110
1	08	P41F001B	A146	MOTOR ACTUATOR/24" BUTTERFLY VALVE	YD	132	2M110
1	08	P41F005A	P238	MOTOR ACTUATOR/24" BUTTERFLY VALVE	YD	132	N/A
1	08	P41F005B	A147	24" BUTTERFLY VALVE/MOTOR ACTUATOR	YD	132	N/A
1	08	P41F011	PA313	10" MO BUTTERFLY VALVE	SSW	132	1M122
1	08	P41F014A	P239	MOTOR ACTUATOR/18" MO BUTTERFLY VALVE	AB	093	1A122
1	08	P41F014B	A148	MOTOR ACTUATOR/18" MO BUTTERFLY VALVE	AB	093	1A123
1	08	P41F018A	P240	MOTOR ACTUATOR/10" MO BUTTERFLY VALVE	DG	133	1D302
1	08	P41F018B	A149	MOTOR ACTUATOR/10" MO BUTTERFLY VALVE	DG	133	1D301
1	08	P41F023A	A150	MOTOR ACTUATOR/10" GO BUTTERFLY VALVE	DG	133	1D301
1	08	P41F023B	PA164	10" GO BUTTERFLY VALVE	DG	136	1D301
1	07	P41F024A	P241	SAFETY RELIEF VALVE	DG	136	1D310
1	07	P41F024B	A151	SAFETY RELIEF VALVE	DG	136	1A432
1	08	P41F028B	PA171	8" MO BUTTERFLY VALVE	AB	185	1D306
1	08	P41F032B	PA146	8" MO BUTTERFLY VALVE	AB	185	
1	07	P41F036	P242	SAFETY RELIEF VALVE	AB	193	1A119
1	08	P41F037	PA179	LPCS RM CLR OUTLET ISO VLV	AB	093	1A119
1	08	P41F038	PA181	LPCS RM CLR INLET	AB	093	1A119
1	07	P41F041	P243	SAFETY RELIEF VALVE	CTB	184	
1	20	P41F043A	PA183	LIMIT SWITCH	YD	132	1P41F005A
1	00	P41F044	PA302	RHR "C" ROOM CLR VENT VALVE	AB	093	1A118
1	20	P41F044A	PA186	POSITION SWITCH	AB	139	1P42F200A
1	20	P41F044B	PA188	POSITION SWITCH	AB	185	1P42F200B
1	20	P41F045A	PA190	POSITION SWITCH	AB	139	1P42F105
1	08	P41F046	A152	SAFETY RELIEF VALVE	DG	136	1A118
1	20	P41F046A	PA193	POSITION SWITCH	AB	185	1P42F203
1	20	P41F046B	PA195	POSITION SWITCH	AB	185	1P42F028B
1	20	P41F047A	PA209	POSITION SWITCH	AB	139	1P42F204
1	20	P41F047B	PA211	POSITION SWITCH	AB	185	1P42F032B
1	20	P41F048A	PA213	POSITION SWITCH	AB	139	1P42F201A
1	20	P41F048B	PA215	POSITION SWITCH	AB	185	1P42F201B
1	20	P41F049A	PA217	POSITION SWITCH	AB	139	1P42F205
1	08	P41F051	PA219	RHR PUMP SEAL CRL INLET ISO VLV	AB	093	1A118
1	08	P41F052	PA221	RHR PUMP SEAL CRL INLET ISO VLV	AB	093	1A118
1	07	P41F061	A153	SAFETY RELIEF VALVE	AB	093	1A511
1	08	P41F064A	P244	MOTOR ACTUATOR/3" MO GATE VALVE	AB	093	
1	08	P41F064B	A165	MOTOR ACTUATOR/3" MO GATE VALVE	AB	093	
1	08	P41F065A	P245	MOTOR ACTUATOR/3" MO GATE VALVE	CB	133	
1	08	P41F065B	A155	MOTOR ACTUATOR/3" MO GATE VALVE			
1	08	P41F066A	P146	MOTOR ACTUATOR/3" MO GATE VALVE	CB	133	
1	08	P41F066B	A156	MOTOR ACTUATOR/3" MO GATE VALVE	CB	133	
1	08	P41F068A	PA223	MOTOR ACTUATOR/18" MO BUTTERFLY VALVE	AB	093	
1	08	P41F073A	P247	MOTOR ACTUATOR/AO VALVE			
1	08	P41F073B	A157	MOTOR ACTUATOR/3" MO GATE VALVE			
1	08	P41F074A	P248	MOTOR ACTUATOR/3" MO GATE VALVE	CB	133	
1	08	P41F074B	A158	MOTOR ACTUATOR/3" MO GATE VALVE	CB	133	
1	08	P41F081A	P249	MOTOR ACTUATOR/3" MO GATE VALVE	AB	093	
1	08	P41F081B	A159	MOTOR ACTUATOR/3" MO GATE VALVE	AB	093	
1	08	P41F083A	PA225	RHR A PUMP SEAL CLR OUTLET ISO VLV	AB	093	1A103
1	08	P41F083B	PA227	RHR B PUMP SEAL CLR INLET ISO VLV	AB	093	1A105
1	07	P41F084A	P250	SAFETY RELIEF VALVE	AB	093	1A103
1	07	P41F084B	A160	SAFETY RELIEF VALVE	AB	093	1A105
1	07	P41F097A	P251	SAFETY RELIEF VALVE	AB	139	1A203
1	07	P41F097B	A161	SAFETY RELIEF VALVE	AB	139	1A203
1	07	P41F100A	P252	SAFETY RELIEF VALVE	AB	093	1A604
1	07	P41F100B	A162	SAFETY RELIEF VALVE	AB	093	1A106
1	07	P41F104	P253	SAFETY RELIEF VALVE	AB	093	1A312
1	08	P41F105	PA229	10" MO BUTTERFLY VALVE	AB	119	1A121

TABLE 1 BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	07	P41F127A	P254	SAFETY RELIEF VALVE	AB	119	1A208
1	07	P41F127B	A163	SAFETY RELIEF VALVE	AB	119	1A207A
1	00	P41F128A	PA231	SSW SPLY TO ESF CLR B001A SWGR M	AB	119	1A215
1	00	P41F128B	PA233	SSW SPLY TO ESF CLR B001B SWGR RM	AB	119	1A207
1	08	P41F131A	PA235	ESF SWGR RM CLR B001A OUTLET ISO VLV	AB	119	1A215
1	08	P41F131B	PA237	ESF SWGR RM CLR B001B OUTLET ISO VLV	AB	119	1A207
1	08	P41F134A	PA239	ESF SWGR RM CLR B002A INLET ISO VALV	AB	119	1A219
1	08	P41F134B	PA241	ESF SWGR RM CLR B002B INLET ISO VALV	AB	119	1A211
1	08	P41F135A	PA147	ESF SWGR RM CLR B002A OUTLET ISO VLV	AB	119	1A219
1	08	P41F135B	PA245	ESF SWGR RM CLR B002B OUTLET ISO VLV	AB	119	1A211
1	07	P41F138A	P255	SAFETY RELIEF VALVE	AB	119	1A219
1	07	P41F138B	A164	SAFETY RELIEF VALVE	AB	119	1A221
1	08	P41F141A	PA247	ESF SWGR RX CLR B003A INLET ISO VLV	AB	139	1A309
1	08	P41F141B	PA249	ESF SWGR RM CLR B005B INLET ISO VLV	AB	139	1A320
1	08	P41F142A	PA251	ESF SWGR RM CLR B005B INLET ISO VLV	AB	139	1A318
1	08	P41F142B	PA253	ESF SWGR RM CLR B005B OUTLET ISO VLV	AB	139	1A320
1	08	P41F147A	PA255	ESF SWGR RM CLR B005A INLET ISO VLV	AB	139	1A318
1	00	P41F147B	PA257	ESF SWGR RM CLR B003B	AB	139	1A320
1	08	P41F148A	PA259	ESF SWGR RM CLR B003A OUTLET ISO VLV	AB	139	1A309
1	08	P41F148B	PA261	ESF SWGR RM CLR B003B OUTLET ISO VLV	AB	139	1A320
1	07	P41F151A	P256	SAFETY RELIEF VALVE	AB	139	1A309
1	07	P41F151B	A165	SAFETY RELIEF VALVE	AB	139	1A308
1	08	P41F154	PA263	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	
1	08	P41F155B	A166	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	
1	07	P41F157A	P257	SAFETY RELIEF VALVE	AB	139	1A318
1	07	P41F157B	A167	SAFETY RELIEF VALVE	AB	139	1A320
1	07	P41F194A	P258	SAFETY RELIEF VALVE	AB	161	1A410
1	07	P41F194B	A168	SAFETY RELIEF VALVE	AB	161	1A407
1	08	P41F199A	PA265	SSW PUMP C001A CLR MOTOR	SSW	133	1H11
1	08	P41F199B	PA267	SSW PUMP C001B CLR MOTOR	SSW	133	2H110
1	08	P41F200A	PA269	8" MO BUTTERFLY VALVE	AB	139	1D308
1	08	P41F200B	PA271	10" MO BUTTERFLY VALVE	AB	185	1D310
1	08	P41F201A	PA273	MOTOR ACTUATOR/8" MO BUTTERFLY VALVE	AB	139	1D301
1	08	P41F201B	PA275	8" MO BUTTERFLY VALVE	AB	185	1D301
1	08	P41F202A	PA277	ESF SWGR RM CLR B004A INLET	AB	166	1A410
1	08	P41F202B	PA279	ESF SWGR RM CLR B004B INLET	AB	166	1A407
1	08	P41F203	PA281	8" MO BUTTERFLY VALVE	AB	185	
1	08	P41F203A	PA283	ESF SWGR RM CLR B004A OUTLET	AB	177	1A410
1	08	P41F203B	PA285	ESF SWGR RM CLR B004B OUTLET	AB	166	1A407
1	08	P41F204	PA287	8" MO BUTTERFLY VALVE	AB	185	1A410
1	08	P41F205	PA289	10" MO BUTTERFLY VALVE	AB	139	1A407
1	08	P41F210A	PA291	RHR PMP SEAL CLR C002A INLET	AB	093	1A103
1	08	P41F210B	PA297	RHR PMP SEAL CLR C002A INLET	AB	093	1A105
1	08	P41F237	P259	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	1A215
1	08	P41F237A	PA304	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	1A215
1	08	P41F238	P260	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	1A215
1	08	P41F239	P261	AIR ACTUATOR/3" MO GATE VALVE	AB	119	1A215
1	08	P41F241	P262	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	1A219
1	08	P41F28A	PA306	MOTOR ACTUATOR/3" MO GATE VALVE	AB	119	1A215
1	08	P41F293A	P263	SAFETY RELIEF VALVE	AB	161	1A432
1	08	P41F293B	PA298	SAFETY RELIEF VALVE	AB	161	1A432
1	08	P41F299A	P264	SAFETY RELIEF VALVE	SSW	133	1M110
1	08	P41F299B	A169	SAFETY RELIEF VALVE	SSW	133	2M110
1	08	P41F354	PA299	ESF B CLR HEADER INLET ISO	AB	093	1A123
1	00	P41F355	PA300	ESF B SW RT. GEAR RMS	AB	139	1A123
1	08	P41K607A	P265	SQ. RT. EXTRACTOR	CB	189	1H13P871A
1	08	P41N005	A170	TBCW TO SSW CROSS TIE VALVE	AB	093	1P41F014B
1	08	P41N006	A171	TBCW TO SSW CROSS TIE VALVE	SSW	133	1M112
1	18	P41N018A	P266	FLOW TRANSMITTER	SSW	133	1M112
1	18	P41N018B	A172	FLOW TRANSMITTER	SSW	133	2M112
1	20	P41N019A	P267	LIMIT SWITCH	DG	133	1P41F018A

TABLE 1 BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	20	P41N019B	A173	LIMIT SWITCH	DG	133	1P41F018B
1	21	P41N035A	P268	CONT RM A/C HX PCV POSN			
1	21	P41N035B	A174	CONT RM A/C HX PCV POSN			
1	21	P41N036A	P269	CONT RM A/C HX A IN FROM PSW			
1	21	P41N036B	A175	CONT RM A/C HX B IN FROM PSW			
1	21	P41N037A	P270	CONT RM A/C HXA IN FROM PSW			
1	21	P41N037B	A176	CONT RM A/C BOUT TO PSW			
1	20	P41N043B	A177	LIMIT SWITCH	YD	132	1P41F005B
1	20	P41N046A	P271	LIMIT SWITCH	YD	132	1P41F001A
1	20	P41N046B	A178	LIMIT SWITCH	YD	132	1P41F001B
1	21	P41N048A	P272	CONT RM A/C HX A IN FROM SSW			
1	21	P41N048B	A179	CONT RM A/C HX B IN FROM SSW			
1	21	P41N049A	P273	CONT RM A/C A OUT TO SSW			
1	20	P41N050	P274	LIMIT SWITCH	AB	119	1P41F237
1	20	P41N051	P275	LIMIT SWITCH	AB	119	1P41F238
1	20	P41N055A	P276	LIMIT SWITCH	AB	093	1P41F014A
1	20	P41N055B	A180	LIMIT SWITCH	AB	093	1P41F014B
1	20	P41N057	P277	POSITION SWITCH	AB	119	1P41F239
1	20	P41N059	P278	LIMIT SWITCH	AB	119	1P41F241
1	20	P41N607B	PA301	SQ. RT. EXTRACTOR	CB	166	1H13P870B
1	20	P41R606A	P279	RECORDER	CB	166	1H13P870
1	20	P41R606B	A181	RECORDER	CB	166	1H13P870
1	08	P42F028B	A182	MOTOR ACTUATOR	AB	185	1A527
1	08	P42F032B	A183	MOTOR ACTUATOR	AB	185	1A527
1	08	P42F067	PA308	MOTOR ACTUATOR/8" MO BUTTERFLY VALVE	AB	103	
1	08	P42F105	P280	MOTOR ACTUATOR	AB	139	1A322
1	08	P42F200A	PA314	MOTOR OPERATED VALVE	AB	139	
1	08	P42F200B	A184	MOTOR ACTUATOR	AB	139	1A322
1	08	P42F201A	PA315	MOTOR OPERATED VALVE	AB	139	
1	08	P42F201B	A185	MOTOR ACTUATOR	AB	185	1A527
1	08	P42F203	P281	MOTOR ACTUATOR	AB	139	1A527
1	08	P42F204	P282	MOTOR ACTUATOR	AB	139	1A322
1	08	P42F205	P283	MOTOR ACTUATOR	AB	139	1A322
1	08	P44F011	A186	12" MO BUTTERFLY VALVE	AB	093	1A120
1	08	P44F042	A187	MOTOR ACTUATOR/8" MO BUTTERFLY VALVE	AB	093	1A117
1	08	P44F054	A188	MOTOR ACTUATOR/8" MO BUTTERFLY VALVE	AB	093	1A117
1	08	P44F067	A189	MOTOR ACTUATOR/8" MO BUTTERFLY VALVE	AB	093	1A319
1	08	P44F115	A190	12" MO BUTTERFLY VALVE	AB	139	1A312
1	21	P44F500	A191	CC WTR HXS OUT HDR	AB	093	1A120
1	08	P44F501	PA316	CC WTR HXS OUT HDR	AB	093	1A120
1	00	P44F515	A192	PSW IN TO CHILLERS	AB	093	1A312
1	20	P44N030	A193	LIMIT SWITCH	AB	093	1P44F054
1	20	P44N034	A194	LIMIT SWITCH	AB	093	1P44F067
1	20	P44N056	A195	LIMIT SWITCH	AB	093	1P44F042
1	08	P45067	CB066	AIR ACTUATOR/6" AO GATE VALVE	DW	118	1A112
1	08	P45068	CB067	AIR ACTUATOR/6" AO GATE VALVE	DW	131	1A110
1	08	P45F003	CB060	AIR ACTUATOR/3"AO GATE VALVE	DW	118	1A112
1	08	P45F004	CB061	AIR ACTUATOR/3"AO GATE VALVE	DW	118	1A110
1	08	P45F009	CB062	AIR ACTUATOR/3"AO GATE VALVE	CTB	135	1A313
1	08	P45F010	CB063	AIR ACTUATOR/3"AO GATE VALVE	AB	093	1A111
1	08	P45F061	CB064	AIR ACTUATOR/6" AO GATE VALVE	CTB	093	1A313
1	08	P45F062	CB065	6" AO GATE VALVE	AB	093	1A111
1	08	P45F096	CB068	MOTOR ACTUATOR/1.5" MO GLOBE STOP VALVE	CTB	120	1A112
1	08	P45F097	CB069	MOTOR ACTUATOR/1.5" MO GLOBE STOP VALVE	CTB	120	1A125
1	08	P45F098	CB070	AIR ACTUATOR/3" AO GATE VALVE	CTB	120	1A110
1	08	P45F099	CB071	AIR ACTUATOR/3" AO GATE VALVE	AB	119	1A111
1	08	P52F105	CB072	AIR ACTUATOR/3" AO GATE VALVE	AB	139	1A319
1	08	P52F195	CB073	MOTOR ACTUATOR/2" MO GLOBE STOP VALVE	CTB	120	1A110
1	08	P53F001	CB074	2.5" AO GATE VALVE	AB	193	1A319
1	08	P53F003	CB075	1.5" MO GLOBE VALVE	AB	166	1A428
1	08	P53F007	PA244	MOTOR ACTUATOR	CTB	135	1A314

TABLE 1							
BASE LIST							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	08	P60F009	CB076	AIR ACTUATOR/12" AO GATE VALVE	AB	119	1A205
1	08	P60F010	CB076	AIR ACTUATOR/12" AO GATE VALVE	AB	119	1A205
1	12	P61C001A	PA286	DRYWELL PURGE COMPRESSOR	CTB	184	
1	08	P71F148	CB077	AIR ACTUATOR/4" AO GATE VALVE	AB	139	1A319
1	08	P71F149	CB078	AIR ACTUATOR/4" AO GATE VALVE	CTB	135	1A311
1	08	P71F150	CB078	AIR ACTUATOR/4" AO GATE VALVE	AB	139	1A319
1	08	P72F121	CB079	AIR ACTUATOR/4" AO GATE VALVE	AB	139	1A319
1	08	P72F122	CB080	AIR ACTUATOR/4" AO GATE VALVE	AB	139	1A319
1	08	P72F123	CB081	AIR ACTUATOR/4" AO GATE VALVE	CTB	135	1A112
1	08	P72F124	CB082	AIR ACTUATOR/4" AO GATE VALVE	CTB	135	1A112
1	08	P72F125	CB083	AIR ACTUATOR/4" AO GATE VALVE	CTB	135	1A112
1	08	P72F126	CB084	AIR ACTUATOR/4" AO GATE VALVE	CTB	135	1A112
1	0	P75A001A	PA317	STBY DG STARTING AIR TANK	DG	136	1D310
1	21	P75A001B	A196	STBY DG STARTING AIR TANK	DG	136	1D310
1	21	P75A001C	A197	STBY DG STARTING AIR TANK	DG	136	1D308
1	21	P75A001D	A198	STBY DG STARTING AIR TANK	DG	136	1D308
1	21	P75A002A	P284	STBY DG JACKET WTR STANDPIPE	DG	136	1D308
1	21	P75A002B	A199	STBY DG JACKET WTR STANDPIPE	DG	136	1D308
1	21	P75A003A	P285	STBY DG FUEL OIL STORAGE TANK	YD	122	
1	21	P75A003B	A200	STBY DG STARTING AIR TANK	YD	122	
1	21	P75A004A	P286	STBY DG FUEL OIL DAY TANK	DG	136	1D302
1	21	P75A004B	A201	STBY DG FUEL OIL DAY TANK	DG	136	1D303
1	21	P75A007A	P287	STBY DG LUBE OIL SUMP TANK	DG	136	1D310
1	21	P75A007B	A202	STBY DG LUBE OIL SUMP TANK	DG	136	1D308
1	21	P75B004A	P288	STBY DG JACK WIR COOLER/FUEL OIL DAY TAN	DG	136	1D310
1	21	P75B004B	A203	STBY DG JACK WIR COOLER/FUEL OIL DAY TAN	DG	136	1D308
1	21	P75B006A	P289	STBY DG LUBE OIL COOLER	DG	136	1D310
1	21	P75B006B	A204	STBY DG LUBE OIL COOLER	DG	136	1D308
1	21	P75B014A	P290	GOVERNOR LUBE OIL COOLER	DG	136	1D310
1	21	P75B014B	A205	GOVERNOR LUBE OIL COOLER	DG	136	1D308
1	21	P75B015A	P291	STBY DG INTERCOOLER	DG	136	1D310
1	21	P75B015B	A206	STBY DG INTERCOOLER	DG	136	1D308
1	21	P75B016B	A207	STBY DG INTERCOOLER	DG	136	1D310
1	0	P75B019A	PA151	STBY DG LUBE OIL INLET PRESSURE STRAINER	DG	136	1D308
1	0	P75B019B	A208	STBY DG LUBE OIL INLET PRESSURE STRAINER	DG	136	1D310
1	0	P75B020A	PA243	STBY DG LUBE OIL INLET PRESSURE STRAINER	DG	136	1D308
1	05	P75C002A	P293	DG FUEL OIL TRANSFER PUMP DG	DG	136	1D310
1	05	P75C002B	A209	DG FUEL OIL TRANSFER PUMP DG	YD	133	
1	05	P75C014A	P294	STBY DG ENGINE DRIVEN FUEL OIL BOOST. PU	YD	133	
1	05	P75C014B	A210	STBY DG ENGINE DRIVEN FUEL OIL BOOST. PU	DG	136	1D310
1	21	P75C015A	P295	STBY DG TURBOCHARGER RIGHT BANK	DG	136	1D308
1	21	P75C015B	A211	STBY DG TURBOCHARGER RIGHT BANK	DG	136	1D310
1	21	P75C016A	P296	STBY DG TURBOCHARGER RIGHT BANK	DG	136	1D308
1	21	P75C016B	A212	STBY DG TURBOCHARGER RIGHT BANK	DG	136	1D310
1	05	P75C017A	P297	STBY DG ENGINE DRIVEN JACKET WTR PUMP	DG	136	1D308
1	05	P75C017B	A213	STBY DG ENGINE DRIVEN JACKET WTR PUMP	DG	136	1D310
1	05	P75C018A	P298	STBY EG ENGINE DRIVEN LUBE OIL BOOST. PU	DG	136	1D308
1	05	P75C018B	A214	STBY DG ENGINE DRIVEN JACKET WTR PUMP	DG	136	1D310
1	0	P75D002C	A215	STBY DG AIR INTK SILENCER	DG	136	1D308
1	0	P75D002D	A216	STBY DG AIR INTK SILENCER	DG	136	1D310
1	10	P75D004A	A217	STBY DG AIR INTK COOLER	DG	136	1D310
1	0	P75D004B	PA152	STBY DSL AIR INTAKE	DG	136	1D308
1	00	P75D010A	P301	STBY DG LUBE OIL FILTER	DG	136	1D308
1	00	P75D010B	A218	STBY DG LUBE OIL FILTER	DG	136	1D310
1	00	P75D011A	P302	STBY DG LUBE OIL FILTER	DG	136	1D308
1	00	P75D011B	A219	STBY DG LUBE OIL PRELUBE FILTER	DG	136	1D310
1	00	P75D020B	PA270	STBY DG LUBE OIL INLET PRESSURE STRAINER	DG	136	1D308
1	00	P75D032A	P303	STBY DG LUBE OIL SUMP TANK STRAINER	DG	136	1D310
1	00	P75D032B	A220	STBY DG LUBE OIL SUMP TANK STRAINER	DG	136	1D308
1	00	P75DG11-1	PA155	OPERATOR FL TO MANUALLY INITIATE DG 11	DG	136	1D308
1	17	P75DG12	P300	STBY DG AIR INTK SILENCER	DG	136	1D310

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col
1	00	P75DG12-1	PA272	OPERATOR FL TO MANUALLY INITIATE DG 12	DG	136	1D310
1	0	P75E001A	P292	STBY DG Div. I			
1	0	P75E001A	P304	STBY DG SYNCHRONOUS GENERATOR			
1	17	P75E001B	P299	STBY DG Div. II	DG	136	1D310
1	00	P75E001B	A221	STBY DG ENGINE BLOCK	DG	136	1D308
1	08	P75F025A	P305	STARTING AIR TANK RELIEF VALVE	DG	136	1D310
1	08	P75F025B	P306	STARTING AIR TANK RELIEF VALVE	DG	136	1D310
1	08	P75F025C	A222	STARTING AIR TANK RELIEF VALVE	DG	136	1D308
1	08	P75F025D	A223	STARTING AIR TANK RELIEF VALVE	DG	136	1D308
1	08	P75F031A	P307	4" GLOBE VALVE	DG	136	1D310
1	08	P75F031B	A224	LUBE OIL HDR PSV	DG	136	1D308
1	08	P75F500A	P308	STBY DG LUBE OIL THERMOSTATIC VALVE	DG	136	1D310
1	08	P75F500B	A225	STBY DG LUBE OIL THERMOSTATIC VALVE	DG	136	1D308
1	08	P75F501A	P309	STBY DG JACKET WTR THERMOSTATIC VALVE	DG	136	1D310
1	08	P75F501B	A226	STBY DG JACKET WTR THERMOSTATIC VALVE	DG	136	1D308
1	08	P75F507A	P310	STBY DG VENTED GAS VALVE	DG	136	1D310
1	08	P75F507B	P311	STBY DG VENTED GAS VALVE	DG	136	1D310
1	08	P75F507C	A227	STBY DG VENTED GAS VALVE	DG	136	1D308
1	08	P75F507D	A228	STBY DG VENTED GAS VALVE	DG	136	1D308
1	08	P75F508A	P312	STBY DG VENTED GAS VALVE	DG	136	1D310
1	08	P75F508B	P313	STBY DG VENTED GAS VALVE	DG	136	1D310
1	08	P75F508C	A229	STBY DG VENTED GAS VALVE	DG	136	1D308
1	08	P75F508D	A230	STBY DG VENTED GAS VALVE	DG	136	1D308
1	08	P75F510A	P314	PRESSURE CONTROL VALVE	DG	133	1P75E001A
1	08	P75F510B	A231	PRESSURE CONTROL VALVE	DG	133	1P75E001B
1	08	P75F511A	P315	PRESSURE CONTROL VALVE	DG	133	1P75E001A
1	08	P75F511B	A232	PRESSURE CONTROL VALVE	DG	133	1P75E001B
1	18	P75N004A	PA240	LEVEL TRANSMITTER	DG	133	
1	18	P75N004B	A233	LEVEL TRANSMITTER	DG	133	1D303
1	20	P75N602A	P316	LEVEL INDICATING SWITCH	CB	189	1H13P871
1	20	P75N602B	A234	LEVEL INDICATING SWITCH	CB	166	1H13P872
1	20	P75N604A	P317	LEVEL SWITCH HIGH	CB	189	1H13P871
1	20	P75N604B	A235	LEVEL SWITCH HIGH	CB	166	1H13P872
1	01	R20S510	P318	LSS 15BA1	AB	199	1A219
1	01	R20S510A-A	PA166	LOAD CENTER UNITE SUBSTATION/MCC15B11	AB	199	1A219
1	01	R20S520	P319	LCC 15BA2	AB	139	1A309
1	01	R20S520A-A	PA168	LOAD CENTER UNITE SUBSTATION/MCC15B21	AB	166	1A208
1	01	R20S530	P320	LCC 15BA3	AB	119	1A219
1	01	R20S540	P321	LCC 15BA4	AB	119	1A208
1	01	R20S550	P322	LCC 15B45	AB	139	1A309
1	01	R20S550A-1	PA176	LOAD CENTER UNIT SUBSTATION/MCC15B51	AB	139	1A318
1	01	R20S560	P323	LCC 15BA6	SSW	133	1H111
1	01	R20S560A	P324	MCC 15B61	SSW	133	1H110
1	01	R20S610	A236	LCC16B81	CB	111	OC202
1	01	R20S610A-B	PA185	LOAD CENTER UNIT SUBSTATION/MCC16B11	CB	111	OC202
1	01	R20S620	A237	LCC 16B82	AB	119	1A221
1	01	R20S620A-B	PA192	LOAD CENTER UNIT SUBSTATION/MCC16B21	AB	119/139	1A221
1	01	R20S630	A238	LCC 16B83	AB	139	1A309
1	01	R20S630A-B	PA197	LOAD CENTER UNIT SUBSTATION/MCC16B31	AB	139	1A309
1	01	R20S640	A239	LCC16B84	AB	119	1A221
1	01	R20S649A-B	PA196	LOAD CENTER UNIT SUBSTATION/MCC16B41	AB	119/139	1A207
1	01	R20S650	A240	LCC16B85	AB	119	1A221
1	01	R20S650B	PA198	LOAD CENTER UNIT SUBSTATION/MCC16B51	AB	139/166	
1	01	R20S660	A241	LCC 16B86	AB	119	1H111
1	01	R20S660A	A242	MCC16B61	AB	133	
1	20	R21P001A	PA200	LOAD SHEDDING & SEQUENCING PLS H22P331	CB	111	OC215
1	03	R21P002B	PA201	LOAD SHEDDING & SEQUENCING PLS H22P332	CB	111	OC213
1	03	R21S501A	PA202	4.16 KV SWGR BUS 15AA	CB	111	
1	09	R21S601B	PA203	4.16 KV SWGR BUS 16AB	CB	111	
1	08	SZ510F017	P330	ACTUATOR	CB	111	
1	08	SZ510F018	A248	ACTUATOR	CB	111	

TABLE 1								
BASE LIST 1								
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev.	Room or Row/Col	
1	09	SZ51B002A	P325	SUPPLY FAN	CB	133	OC302	
1	09	SZ51B002B	A243	SUPPLY FAN	CB	133	OC303	
1	09	SZ51D002A	P326	FAN-40 MW	CB	133	OC302	
1	09	SZ51D002B	A244	FAN-40 MW	CB	133	OC303	
1	08	SZ51F005	P327	ACTUATOR	CB	133	OC303	
1	08	SZ51F007	P328	MOTOR ACTUATOR	CB	133	OC302	
1	08	SZ51F008	P329	20" MO BUTTERFLY VALVE	CB	133	OC303	
1	08	SZ51F013	A245	ACTUATOR	CB	133	OC303	
1	08	SZ51F014	A246	MOTOR ACTUATOR/20" MO BUTTERFLY VALVE	CB	133	OC303	
1	08	SZ51F016	A247	MOTOR ACTUATOR/20" MO BUTTERFLY VALVE	CB	133	OC303	
1	10	T46B001A	P331	ESF SWGR. RM COOLER W/CENTRIFUGAL FAN	AB	129	1A208	
1	10	T46B001B	A249	ESF SWGR. RM COOLER W/CENTRIFUGAL FAN	AB	129	1A207	
1	10	T46B002A	P332	ESF SWGR. RM COOLER W/AXIVANE FAN	AB	129	1A219	
1	10	T46B002B	A250	ESF SWGR. RM COOLER W/AXIVANE FAN	AB	129	1A221	
1	10	T46B003A	AP333	ESF SWGR. RM COOLER W/AXIVANE FAN	AB	156	1A309	
1	10	T46B003B	A251	ESF SWGR. RM COOLER W/AXIVANE FAN	AB	156	1A308	
1	10	T46B004A	P334	ESF SWGR. RM COOLER W/CENTRIFUGAL FAN	AB	175	1A410	
1	10	T46B004B	A252	ESF SWGR. RM COOLER W/CENTRIFUGAL FAN	AB	175	1A407	
1	10	T46B005A	P335	ESF SWGR. RM COOLER W/CENTRIFUGAL FAN	AB	153	1A318	
1	10	T46B005B	A253	ESF SWGR. RM COOLER W/CENTRIFUGAL FAN	AB	157	1A320	
1	10	T46G003A	PA204	ESF SWGR. RM COOLER W/AXIVANE FAN	AB	156	1A318	
1	19	T46N002A	P336	TEMP. ELEMENT	AB	169	1A318	
1	19	T46N002B	A254	TEMP. ELEMENT	AB	139	1A302	
1	19	T46N003A	P337	TEMP. ELEMENT	AB	119	1A208	
1	19	T46N003B	A255	TEMP. ELEMENT	AB	119	1A207	
1	19	T46N003C	P338	TEMP. ELEMENT	AB	161	1A410	
1	19	T46N003D	A256	TEMP. ELEMENT	AB	161	1A407	
1	19	T46N004A	P339	TEMP. ELEMENT	AB	119	1A219	
1	19	T46N004B	A257	TEMP. ELEMENT	AB	119	1A221	
1	19	T46N004C	P340	TEMP. ELEMENT	AB	139	1A309	
1	19	T46N004D	A258	TEMP. ELEMENT	AB	139	1A308	
1	20	T46N600A	P341	TEMP. SWITCH	CB	189	1H13P871	
1	20	T46N600B	A259	TEMP. SWITCH	CB	166	1H13P972	
1	20	T46N600C	P342	TEMP. SWITCH	CB	189	1H13P871	
1	20	T46N600D	A260	TEMP. SWITCH	CB	166	1H13P972	
1	20	T46N601A	P343	TEMP. SWITCH	CB	189	1H13P871	
1	20	T46N601B	A261	TEMP. SWITCH	CB	166	1H13P972	
1	20	T46N601C	P344	TEMP. SWITCH	CB	189	1H13P871	
1	20	T46N601D	A262	TEMP. SWITCH	CB	166	1H13P972	
1	20	T46N602A	P345	TEMP. SWITCH	CB	189	1H13P871	
1	20	T46N602B	A263	TEMP. SWITCH	CB	166	1H13P872	
1	10	T51B001C	PA145	HPCS ROOM COOLER	AB	109	1A109	
1	10	T51B002-A	PA205	LPCS ROOM COOLER	AB	109	1A119	
1	10	T51B003	P346	RHR A ROOM COOLER	AB	129	1A203	
1	10	T51B004	A264	RHR B ROOM COOLER	AB	129	1A205	
1	10	T51B005	A265	RHR C ROOM COOLER	AB	109	1A118	
1	10	T51B006	P347	RCIC ROOM COOLER	AB	093	1A104	
1	10	T51B007A	PA206	FPC & CU PUMP ROOM COOLER	AB	093	1A428	
1	10	T51B007B	PA207	FPC & CU PUMP ROOM COOLER	AB	166	1A428	
1	09	X77C001A	P348	VANE-AXIAL FAN AND MOTOR	DG	158	1F403	
1	09	X77C001B	A266	VANE-AXIAL FAN AND MOTOR	DG	158	1D402	
1	10	X77F001A	P349	DAMPER/INTAKE FAN STARTER 1NB5106/*	DG	158	1D403	
1	10	X77F001B	P267	DAMPER/INTAKE FAN STARTER 1NB6104/*	DG	133	1D402	
1	20	X77N004	P350	LIMIT SWITCH	DG	133	1X77F001A	
1	20	X77N005	A268	TEMP. SWITCH	DG	133	1X77F001B	
1	19	X77N022	P351	TEMP. ELEMENT	DG	158	1D310	
1	19	X77N023	A269	TEMP. ELEMENT	DG	158	1D308	
1	20	X77N600	P352	TEMP. SWITCH	CB	189	1H13P871	
1	20	X77N601	A270	TEMP. SWITCH	CB	189	1H13P872	
1	09	Y47C001A	P353	VANE-AXIAL FAN AND MOTOR	SSW	153	1M110	
1	09	Y47C001B	PA254	VANE-AXIAL FAN AND MOTOR	SSW	153		

TABLE 1							
BASE LIST 1							
UNIT	SQUG EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	Bldg	Floor Elev	Room or Row/Col
1	10	Y47F001A	P354	DAMPER/ELECTRICAL ACTUATOR	SSW	133	1M110
1	10	Y47F001B	A271	DAMPER/ELECTRIC ACTUATOR	SSW	133	2M110
1	10	Y47F002A	P355	DAMPER/ELECTRIC ACTUATOR	SSW	133	OM110
1	10	Y47F002B	A272	DAMPER/ELECTRIC ACTUATOR	SSW	133	2M110
1	10	Y47F003A	P356	INLET DAMPER	SSW	133	OM110
1	10	Y47F003B	A273	INLET DAMPER	SSW	133	2M110
1	19	Y47N005A	P357	TEMP. ELEMENT	SSW	133	1M112
1	19	Y47N005B	A274	TEMP. ELEMENT	SSW	133	2M112
1	19	Y47N013A	P358	TEMP. ELEMENT	DG	158	1M112
1	19	Y47N013B	A275	TEMP. ELEMENT	DG	158	2M112
1	20	Y47N601A	P359	TEMP. SWITCH	CB	189	1H13P871
1	20	Y47N601B	A276	TEMP. SWITCH	CB	166	1H13P872
1	20	Y47N602A	P360	TEMP. SWITCH	CB	189	1H13P71
1	20	Y47N602B	A277	TEMP. SWITCH	CB	166	1H13P72
1	10	Z77B001A	P361	SWGR. & BATT ROOM AIR HDLG. UNIT	CB	133	OC302
1	10	Z77B001B	A278	SWGR. & BATT ROOM AIR HDLG. UNIT	CB	133	OC303
1	09	Z77C001A	P362	VANE-AXIAL FAN AND MOTOR	CB	133	OC302
1	09	Z77C001B	A279	VANE-AXIAL FAN AND MOTOR	CB	133	OC302
1	00	Z77F001A	P363	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	111	OC302
1	00	Z77F001B	A280	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	111	OC212
1	00	Z77F002A	P364	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	133	OC302
1	00	Z77F002B	A281	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	133	OC303
1	00	Z77F003A	P365	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	133	OC303
1	00	Z77F003B	A282	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	133	OC302
1	00	Z77F007	P366	FIRE DAMPER	CB	111	OC208
1	00	Z77F009	P367	FIRE DAMPER	CB	111	OC202
1	00	Z77F025A	P368	FIRE DAMPER	CB	111	OC202
1	00	Z77F026A	A283	FIRE DAMPER	CB	111	OC202
1	00	Z77F029	A284	FIRE DAMPER	CB	111	OC202
1	00	Z77F030	P369	FIRE DAMPER	CB	111	OC202
1	00	Z77F031	A285	FIRE DAMPER	CB	111	OC216
1	00	Z77F032	A286	FIRE DAMPER	CB	111	OC216
1	00	Z77F035A	P370	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	133	OC303
1	00	Z77F035B	A287	ACTUATOR, DAMPER, LIMIT SWITCH & VALVE	CB	133	OC302
1	08	Z77F501	P371	SOLENOID VALVE	CB	133	1Z77F003A
1	08	Z77F502	P372	SOLENOID VALVE	CB	133	1Z77F035A
1	08	Z77F503	A288	SOLENOID VALVE	CB	133	1Z77F035B
1	08	Z77F504	A289	SOLENOID VALVE	CB	133	1Z77F003B
1	08	Z77F505	P373	SOLENOID VALVE	CB	133	1Z77F001A
1	08	Z77F506	P374	SOLENOID VALVE	CB	133	1Z77F002A
1	08	Z77F507	A290	SOLENOID VALVE	CB	133	1Z77F002B
1	08	Z77F508	A291	SOLENOID VALVE	CB	133	1Z77F001B

TABLE 2													
SWEL 4													
SWEL #	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	N/R	DWG	AWC #
1	M23Y001	Lower Containment Personnel Airlock	CTMT/AB	119	09/1A215	-	5	0	I	N		E-1701, Rev. 28	14
2	P75C015A	Stby DG Turbocharger Right Bank (STBY DSL LB Turbocharger)	DG	133	DSL/1D310	1	1,2,3,4,5	0	I	N	N	M-1070-C, Rev. 21	41
3	R20S610A-B	Load Center Unit Substation/MCC16B11 (Motor Control Center 16B11)	AB	119	10/1A221	2	1,2,3,4,5	1	I	Y		C-1305C, Rev. 9 C-1308, Rev. 12 E-1679, Rev. 37	17
4	R20S620A-B	Load Center Unit Substation/MCC16B21 (Motor Control Center 16B21)	AB	139	08/1A320	2	1,2,3,4,5	1	I	Y		C-1305C, Rev. 9 C-1313, Rev. 17 M-1014, Rev. 25	20
5	R21S501-A	4.16kV Switchgear Bus 15AA	CB	111	CB/OC202	1	1,2,3,4,5	3	I	N		M-0013, Rev. 25	24
6	E51C001	Reactor Core Isolation Cooling Pump	AB	93	10/1A104	-	3	5	I	Y		C-1383A, Rev. 5 M-1012, Rev. 15 105D5696	3
7	P41C001A	SSW Motor A & SSW Pump A	SSW	133	SSW/1M110	1	2,3,4,5	6	I	Y		E-1716, Rev. 19 M-931.0-Q1P41C001B-1.2-1-3 M-087.1-Q1P41C001A-A-1.1-001	43
8	P41C002C	HPCS Service Water Pump	SSW	133	SSW/1M111	3	2,3,4,5	6	I	N		E-1716, Rev. 19	44
9	B21F022A	MSIV (MSL "A" DRWL Inbd Isol)	CTMT	135	CTMT/1A112	-	5	7	I/T/H	N		M-1302, Rev. 9 13561-01-H-005, Rev. 1	31
10	B21F028C	MSIV (MSL C CTMT Otbd Isol)	AB	139	08/1A305	-	5	7	I/T/H	N		M-1320, Rev. 20 M-1269, Rev. 7	19
11	P41F024A	Safety Relief Valve (Jacket WTR Cooler P75 B004A Return Line PSV)	DG	133	DSL/1D310	-	2,3,4	7	I	N	R	FSK-S-1061B-073-G, Rev. 8 M-912.0-Q1-1.1-001, Rev. 0	41
12	P41F084A	Safety Relief Valve (RHR Pump A Seal Cir Press Relief Valve)	AB	93	07/1A103	-	2,3,4	7	I	N	R	M-141.1-Q1-1.2-001, Rev. 10 FSK-S-10610-087-B, Rev. 13	2
13	P41F100B	Safety Relief Valve (RHR HX B Press Relief Vlv)	AB	93	08/1A106	-	2,3,4	7	I	N	R	M-141.1-Q1-1.2-001, Rev. 10 FSK-S-1061D-018-B, Rev. 8	5
14	C11F181	Globe Valve (Scram Disch Vol Dr Man Handwheel)	CTMT	135	CTMT/1A311	1	1	7	I	N		FSK-I-1081A-321-C	32
15	E12F055A	Safety Relief Valve (RHR HX A Pressure Relief Valve)	AB	139	07/1A304	-	3,4	7	I	N		M-141.2-N1-1.2-003, Rev. 3 M-1348J, Rev. 11	18
16	E61F007	Air Actuator/8" Butterfly Valve (Norm Vac RLF CTMT Otbd Isol)	CTMT	185	CTMT/1A509	-	5	7	I	N		M-1330A, Rev. 2 E-1704, Rev. 23	35
17	E61F010	Air Actuator/6" Butterfly Valve (Purge Sply CTMT Inbd Isol Vlv)	CTMT	161	CTMT/1A445	2	5	7	I	N		M-1330A, Rev. 2	34
18	G36F101	Air Actuator/4" Gate Valve (RWCU Bkw RCV Tk Xfer To Radwst)	AB	119	08/1A204	-	5	7	I	N	R	M-1343C, Rev. 17 M-242.0-Q1-1.2-154, Rev. 6	11
19	M41F013	Air Actuator/20" Butterfly Valve (DRWL Purge Sply Fm CTMT Clg)	CTMT	161	CTMT/1A445	2	4,5	7	I	N		M-1478, Rev. 15 M-1474, Rev. 26 M-258.0-Q1-1.2-18	34
20	M41F034	Air Actuator/20" Butterfly Valve (CTMT Clg Exh To CTMT Vent)	CTMT	161	CTMT/1A445	2	4,5	7	I	N		M-1478, Rev. 15 M-1474, Rev. 26 M-258.0-Q1-1.2-18	34
21	M41F035	Air Actuator/20" Butterfly Valve (CTMT Clg Exh To CTMT Vent)	AB	166	08/1A405	1	4,5	7	I	N		M-258.0-Q1-1.2-018, Rev. 9 C-2669	21
22	P11F131	Air Actuator/12" Butterfly Valve (Refuel Wtr Xfer Pmp Suct Fm Supp Pool)	AB	93	09/1A115	-	3,4,5	7	I	N		M-1336H, Rev. 23 9645-M-258.0-Q1-1.2-40-4	6
23	P41F194B	Safety Relief Valve (ESF SWGR RM CLR B004B Press. Relief Valve)	AB	166	08/1A407	2	2,3,4,5	7	I	N		M-251.0-Q1-1.2-002, Rev. 7 FSK-S-1061D-090-B, Rev. 11	22
24	E12F029A	18" No Gate Valve & Gear Actuator (A RHR Pmp Disch)	AB	93	07/1A102	-	3,4	8	I	N		M-1348A, Rev. 23 9645-M-242.0-Q1-1.2-70-2	1
25	B21F065A	24" Feedwater Inlet A (FW INL Shutoff Vlv)	AB	139	08/1A305	1	1,2,3,4	8	I/T/H	N		M-1269, Rev. 7 M-1328K, Rev. 22	19
26	B33F125	.75" Reactor RCIC Post (JP Post-ACC Smpl CTMT Otbd Isol)	AB	119	09/1A220	1	1,2,5	8	I	N		FSK-S-1078B-127-C, Rev. 7 E-1678, Rev. 38 M-KB251.0-QS-1.2-012, Rev. A	16
27	B21F067C	1.5" Main Steam C (Otbd MSL C Dr Vlv)	AB	139	07/1A305	-	2,3,4	8	I/T/H	N		M-1269, Rev. 7	19
28	B33F129	Isolation Valve (Reac Recirc Sys Smpl Pnl Isol Vlv)	CTMT	185	CTMT/1A514	-	3,5	8	I	N		E-1704, Rev. 23	38

TABLE 2 - SWEL 1													
SWEL #	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	N/R	DWG	AWC #
29	C11F110A	CRD Scram Solenoid Valve B/U (CRD Scram Solenoid Valve Back Up)	CTMT	135	CTMT/1A311	-	1	8	I	N	R	M-316.0-Q1-1.1-98, Rev. 3	32
30	E12F003A	18" Globe Stop Valve & Motor Actuator (RHR Hx A Outl Vlv)	AB	93	07/1A102	1	3,4	8	I	N		9645-M-242.0-Q1-1.2-26-7 M-1348D, Rev. 19	1
31	E12F004B	24" Valve & Motor Actuator (RHR Pmp B Suct Fm Supp Pool)	AB	93	08/1A105	2	3,4,5	8	I	N		9645-M-242.0-Q1,1.2-20-7 M-1348B, Rev. 16	4
32	E12F006B	18" Valve & Motor Actuator (RHR Pmp B Suct Fm Shutdn Clg)	AB	119	08/1A205	2	3,4	8	I	N		M-1348B, Rev. 16	12
33	E12F024A	18" No Gate Valve & Motor Actuator (RHR A Test Rtn To Supp Pool)	AB	93	07/1A103	2	3,4	8	I	N		M-1348D, Rev. 19 E-1672, Rev. 36 9645-M-242.0-Q1-1.2-122-5	2
34	E12F027B	18" No Gate Valve & Motor Actuator (RHR B Sys Shutoff Vlv)	AB	119	08/1A205	2	3,4,5	8	I	N		M-1348E, Rev. 24 E-1677, Rev. 42	12
35	E12F064B	4" Valve/Motor Actuator (RHR B Min Flo To Supp Pool)	AB	93	08/1A105	2	3,4	8	I	N		9645-M-242.0-Q1-1.2-76-5 M-1348B, Rev. 16 E-KC1673, Rev. A	4
36	E22F004	12" Hpcs Pump Discharge (HPCS Ini Shutoff Vlv)	AB	119	08/1A205	3	3,4,5	8	I	N		M-1349A, Rev. 19	12
37	E32F001A	1.5" Main Steam A (Inboard Valves Test)	AB	139	08/1A305	1	2,3,4,5	8	I/T/H	N		FSK-H-1097-021-B	19
38	E32F001N	1.5" Main Steam D (Inboard Valves Test)	AB	139	08/1A305	1	2,3,4,5	8	I/T/H	N		FSK-S-1097-020-B, Rev. 17	19
39	E51F046	Motor Actuator/2" Stop Valve (RCIC Wtr To Turb Lube Oil Clr)	AB	93	07/1A104	1	3	8	I	N		08-403-0002-4 FSK-S-1083B-004-B, Rev. 14	3
40	G41F044	Motor Actuator/8" Gate Valve (CTMT Fp Dr CTMT Inbd Isol)	CTMT	185	CTMT/1A509	2	4,5	8	I	N		M-1351B, Rev. 15 E-1704, Rev. 23	36
41	P41F011	10" Butterfly Valve (SSW Loop C Rtn To Clg Twr A (Loop C))	SSW	133	SSW/1M112	3	2,3,4	8	I	N		M-1358L, Rev. 19 9845-M-258.0-Q1-1.2-15-8	45
42	E12F041B	LPCI B Testable Check Valve (RHR B Testable Chk Vlv)	CTMT	135	CTMT/1A112	2	1,2,3,4,5	8	I	N		M-1348F, Rev. 25 M242.2-Q1-1.2-005, Rev. 5	31
43	P44F011	CCW Heat Exchanger Outlet Header Valve	AB	93	09/1A120	-	4	8	I	N		M-1331D, Rev. 23	8
44	P44F500	CC Wtr Hxs Out Hdr	AB	93	09/1A120	-	4	8	I	N		M-1331D, Rev. 23	8
45	SZ51B002A	Supply Fan (Control Room A/C Unit Fan)	CB	133	CB/OC302	1	1,2,3,4,5	9	I	Y		M622.0-QSZ51B002A-A-1.1-001 C-0606, Rev. 18	27
46	SZ51D002A	Fan 40-MW (Control Room Standby Fresh Air Unit Fan)	CB	133	CB/OC302	-	1,2,3,4,5	9	I	Y		M633.0-QSZ51D002A-A-1.1-001 M633.0-QSZ51D002A-A-1.1-002 C-0606, Rev. 18	27
47	T46B001A	ESF Switchgear Room Cooler W/Centrifugal Fan (ESF Elec Swgr Room East Cooling Unit)	AB	119	07/1A208	1	1,2,3,4,5	10	I	N		M-1013, Rev. 16 M611.0-Q1T46B001A-A-1.1-001 M611.0-Q1T46B001A-A-1.1-002	13
48	Y47F001A	Damper/Electrical Actuator (SSW Pmp House "A" Exhaust Damper)	SSW	133	SSW/1M110	1	1,2,3,4,5	10	I	N		M-1496, Rev. 3	43
49	X77F001A	Damper/Intake Fan Starter 1Nr5106 (Stby Dsl Gen Rm Outside Air Fan Inlet Damper)	DG	158	DSL/1D403	1	1,2,3,4,5	10	I	N		M-1495, Rev. 11	42
50	Z77F030	Division 1 Battery Room Supply Damper	CB	111	CB/OC207	1	1,2,3,4,5	10	I	N		M-0191, Rev. 27 M-0210A, Rev. 4 M-0210B, Rev. 4	25
51	E61C001B	Drywell Purge Compressor (DRW Purge Comp B)	CTMT	185	CTMT/1A512	2	5	12	I	Y		413D271, Rev. D E-1704, Rev. 23 M-1016, Rev. 14	37
52	R28P110-A	PWR Distribution Panel 1Y89	CB	111	CB/OC202	1	1,2,3,4,5	14	I	N		E-0688, Rev. 42	24
53	L11S001	Station DC Power Supply 125VDC ESF Battery 1A3	CB	111	CB/OC207	1	1,2,3,4,5	15	I	Y		M-0013, Rev. 25	25
54	L51S001A	Battery Charger 1DA4	CB	111	CB/OC202	1	1,2,3,4,5	16	I	Y		C-0602A, Rev. 20 JA-1770	24
55	L51S001B	Battery Charger 1DA5	CB	111	CB/OC202	1	1,2,3,4,5	16	I	Y		C-0202, Rev. 18 C-0602A, Rev. 20 JA-1770	24
56	P75E001A	Stby Dg (Standby Diesel Generator)	DG	133	DSL/1D310	1	1,2,3,4,5	17	I	Y		M-1026, Rev. 15 C-1502A, Rev. 6	41

TABLE 2 SWEL													
SWEL #	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	N/R	DWG	AWC #
57	E30N003A	Level Transmitter (Suppression Pool Wide Range Level Transmitter)	AB	93	09/1A115	1	2,3,4	18	I	N	R	J-1505C, Rev. 0	6
58	C71N050A	Pressure Transmitter (Drywell Pressure RPS/PCIS Ch A Transmitter)	CTMT	135	CTMT/1A313	1	2,5	18	I	Y		C-1044A, Rev. 15 J-1507A, Rev. 1 945E170, Rev. 4	33
59	E30N004B	Level Transmitter (Suppression Pool Narrow Range Level Transmitter)	AB	93	10/1A116	2	1,2,3,4,5	18	I	Y		FSK-I-0127G-825B, Rev. 4 J-1505D, Rev. 0	7
60	E31N086A	Differential Pressure Transmitter (Main Steam Line A Flow A (PCIS) Transmitter)	CTMT	135	CTMT/1A313	1	1,2,3,4,5	18	I	Y	R	J-1507A, Rev. 1	33
61	E51N050	Pressure Transmitter (RCIC Pump Discharge Pressure Transmitter)	AB	103	07/1A121	1	3,4	18	I	Y	R	J-1505A, Rev. 0	9
62	P41N018A	Flow Transmitter (SSW Clg Tower A Return Flow Transmitter)	SSW	133	SSW/1M112	1	1,2,3,4,5	18	I	N	R	J-1512, Rev. 8 FSK-I-0127G-943-T, Rev. 4	45
63	P75N004A	Level Transmitter (Diesel Generator A Day Tank Level Transmitter)	DG	133	DSL/1D302	1	1,2,3,4,5	18	I	Y		J-1511, Rev. 13 FSK-I-0127G-951-G, Rev. 4	39
64	B21N150D	Pressure Switch (SRV 1B21F041D Discharge Pressure High Switch)	CTMT	161	CTMT/1A445	1	1,2,3,4,5	18	I	Y		FSK-I-1077C-018-C, Rev. 5 FSK-I-1077C-022-C, Rev. 4 J-1508B, Rev. 1	34
65	H22P025	Differential Pressure Transmitter (MN ST Flow Instrument Panel B)	CTMT	135	CTMT/1A311	-	1,2,3,4,5	18	I	Y		C-1044A, Rev. 15 J-1507D, Rev. 1 164C5910	32
66	M71N027B	Temp. Element (Containment Pressure (WRPAM Ch-B) Transmitter)	AB	166	08/1A417	2	1,2,3,4,5	18	I	Y		FSK-I-0127G-084-B J-1508B, Rev. 1	23
67	E12N103	Position Switch (Shutdn Clg Inbd Isol Viv F009 Position Switch)	CTMT	120	CTMT/1A112	2	1,2,3,4,5	18	I/T/H	N		M-1348A, Rev. 23 E-1701, Rev. 028	31
68	E22N054C	Different Pressure Transmitter (Condensate Storage Tank Level Transmitter)	AB	119	07/1A201	3	3	18	I	Y		FSK-I-0127G-034-B, Rev. 3 J-1506B, Rev. 1	10
69	E22N054G	Different Pressure Transmitter (Condensate Storage Tank Level Transmitter)	AB	119	07/1A201	3	3	18	I	Y		FSK-I-0127G-035-B, Rev. 4 J-1506B, Rev. 1	10
70	E51N035E	Condensate Storage Tank (Condensate Storage Tank (RCIC) Level Transmitter)	AB	119	07/1A201	1	3	18	I	Y		FSK-I-0127G-037-B, Rev. 4 J-1506B, Rev. 1	10
71	E51N035A	Condensate Storage Tank (Condensate Storage Tank (RCIC) Level Transmitter)	AB	119	07/1A201	1	3	18	I	Y		FSK-I-0127G-036-B, Rev. 3 J-1506B, Rev. 1	10
72	E31N001A	Air Temperature Element (RHR A Equipment Area 2 Temperature Element)	AB	93	07/1A103	1	1,2,3,4,5	19	I	N		J-1505A, Rev. 0 J-0157T, Rev. 6	2
73	E31N031A	Air Temperature Element (MSL Pipe Tunnel Ambient Temperature Element)	AB	139	08/1A305	1	1,2,3,4,5	19	I	N		M-1090B, Rev. 38 J-1507A, Rev. 1 J-0157T, Rev. 6	19
74	M71N007A	Temp. Element (CTMT 139 Ft Elevation Temperature Element)	CTMT	135	CTMT/1A313	1	1,2,3,4,5	19	I	N		27620 J-0157T, Rev. 6 J-1507A, Rev. 1	33
75	M71N026A	Temp. Element (Suppression Pool Temperature Element)	CTMT	135	CTMT/1A311	1	1,2,3,4,5	19	I	N		J-1507B, Rev. 1 J-0155T, Rev. 3	32
76	T46N003A	Temp Element (ESF Elec Switchgear East Room Temperature Element)	AB	119	07/1A208	1	1,2,3,4,5	19	I	Y		27620 J-0157T, Rev. 6 J-1506B, Rev. 1	13
77	Y47N005B	Temp. Element (SSW Pump House B Space Temperature Element)	SSW	133	SSW/2M110	2	1,2,3,4,5	19	I	Y		27620 J-0157T, Rev. 6 J-1512, Rev. 8	46
78	B21N697B	Trip Unit (Reactor Vessel Pressure Blow (ECCS Inj Perm)	CB	166	CB/OC504	2	1	20	I	N		J-0400, Rev. 18	29
79	H13P669	Power Range Monitor A (Div 1 Neut And Radiation Monitoring Cabinet)	CB	189	CB/OC703	1	1	20	I	N		J-0401, Rev. 14 865E389	30
80	H13P691	Pressure Indicating Switch (Division 1 RPS Logic VB)	CB	189	CB/OC703	1	1,2,3,4	20	I	Y		J-0401, Rev. 14 865E712	30
81	H13P872	Level Indicating Switch (Division 2 ESF Logic VB)	CB	166	CB/OC504	2	1,2,3,4	20	I	Y		J-0400, Rev. 18 865E707	29
82	E31N602A	Temp Switch (RCIC Equipment Area Temperature Switch)	CB	189	CB/OC703	1	1,2,3,4,5	20	I	Y		J-0401, Rev. 14 865E712	30
83	E31N690A	Pressure Differential Switch (RCIC Steam Line Flow Highswitch)	CB	189	CB/OC703	1	1,2,3,4,5	20	I	Y		J-0401, Rev. 14 865E711	30
84	B21N682D	Level Switch (Reactor Vessel Level Low (PCIS/SCI/RWCU) Switch)	CB	166	CB/OC504	4	1,2,3,4,5	20	I	Y		J-0400, Rev. 18 865E707	29

TABLE 2													
SWEL 1													
SWEL 1 #	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	N/R	DWG	AWC #
85	E31N608B	Temp Switch (RHR B Equipment Area 1 Temperature Switch)	CB	166	CB/OC504	2	1,2,3,4,5	20	I	Y	R	J-0400, Rev. 18	29
86	H13P601	Level Recorder (Reactor Core Cooling BB)	CB	166	CB/OC503	-	3	20	I	Y		J-0400, Rev. 18 865E675 865E721	28
87	H22P150	Remote Shutdown Panel (Remote Shutdown Panel A)	CB	111	CB/OC208	1	1,2,3,4,5	20	I	N		M-0013, Rev. 25	26
88	H22P296	Alternate Shutdown Panels	AB	119	09/1A219	-	1,2,3,4,5	20	I	Y		CSD-14, Rev. 4 CSD-15, Rev. 8 IA-209-3026, Rev. 0 J-1506D, Rev. 1	15
89	H22P331	Div 2 Load Shed Panel (Division 1 Load Shed Seq Panel)	CB	111	CB/OC202	2	1,2,3,4,5	20	I	N		M-0013, Rev. 25	24
90	H22P401	Stby DG Engine Control Panel (Diesel Generator Instrument Panel Div 2)	DG	133	DSL1D308	2	1,2,3,4,5	20	I	N		M-1026, Rev. 15 J-0133G, Rev. 3	40
91	M71N602A	Strip Chart Recorder (RG 1.97) (Containment Pressure Highswitch)	CB	189	CB/OC703	1	1,2,3,4,5	20	I	N		J-0401, Rev. 14	30
92	E12B002B	RHR Heat Exchanger	AB	93	08/1A106	2	1,2,3,4,5	21	I	Y		M-1012, Rev. 015 131C8536	5
93	P75B006A	Stby DG Lube Oil Cooler	DG	133	DSL1D310	1	1,2,3,4,5	21	I	Y		E-1052, Rev. 2 M-1026, Rev. 15	41

5 Safety Functions (System Types)

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

TABLE 3									
BASE LIST 2									
BL2#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT
1	1G41A001	FUEL POOL DRAIN TANK	AB	194	1A537	-	Fuel Pool Cooling	21	I
2	1G41A74-002-16105	RELAY AGASTAT - RELAY	AB	119	1A221	1	Fuel Pool Cooling	0	I
3	1G41AAT001I	FIELD CONTACT INPUT ISOLATOR	CB	189	-	-	Fuel Pool Cooling	0	I
4	1G41AAT001O	HIGH LEVEL OUPUT ISOLATOR	CB	189	-	-	Fuel Pool Cooling	0	I
5	1G41AAT002I	FIELD CONTACT INPUT ISOLATOR	CB	166	-	-	Fuel Pool Cooling	0	I
6	1G41AAT002O	HIGH LEVEL OUTPUT ISOLATOR	CB	166	-	-	Fuel Pool Cooling	0	I
7	1G41AAT003I	FIELD CONTACT INPUT ISOLATOR	CB	189	-	-	Fuel Pool Cooling	0	I
8	1G41AAT003O	HIGH LEVEL OUTPUT ISOLATOR	CB	189	-	-	Fuel Pool Cooling	0	I
9	1G41AAT004I	FIELD CONTACT INPUT ISOLATOR	CB	166	-	-	Fuel Pool Cooling	0	I
10	1G41AAT004O	HIGH LEVEL OUTPUT ISOLATOR	CB	166	-	-	Fuel Pool Cooling	0	I
11	1G41AK011A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
12	1G41AK011B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
13	1G41AK012A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
14	1G41AK012B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
15	1G41AK013A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
16	1G41AK013B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
17	1G41AK014A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
18	1G41AK014B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
19	1G41AK015A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
20	1G41AK015B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
21	1G41AK021A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
22	1G41AK021B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
23	1G41AK022A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
24	1G41AK022B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
25	1G41AK023A	RELAY	CB	189	-	-	Fuel Pool Cooling	0	I
26	1G41AK023B	RELAY	CB	166	-	-	Fuel Pool Cooling	0	I
27	1G41B005A	FUEL POOL HEAT EXCHANGER	AB	185	1A527	-	Fuel Pool Cooling	21	I
28	1G41B005B	FUEL POOL HEAT EXCHANGER	AB	185	1A527	-	Fuel Pool Cooling	21	I
29	1G41C001A	FUEL POOL PUMP & MOTOR	AB	166	1A432	1	Fuel Pool Cooling	5	I
30	1G41C001B	FUEL POOL PUMP & MOTOR	AB	166	1A432	2	Fuel Pool Cooling	5	I
31	1G41F002	3" AO GATE VALVE (FUEL STORAGE MAKEUP WATER VALVE)	AB	185	1A527	-	Fuel Pool Cooling	7	I
32	1G41F005	10" GO BUTTERFLY VALVE (FUEL HANDLING BUILDING SUPPLY)	AB	186	1A527	-	Fuel Pool Cooling	0	I
33	1G41F019	10" AO BUTTERFLY VALVE (FILTER DEMIN INLET VALVE)	AB	185	1A538	-	Fuel Pool Cooling	7	I
34	1G41F021	10" MO GLOBE STOP VALVE (FILTER DEMIN BYPASS VALVE)	AB	185	1A527	-	Fuel Pool Cooling	8	I
35	1G41F028	8" MO GLOBE STOP VALVE (FPCC RTN VLV CTMT OTBD ISOL)	AB	185	1A527	-	Fuel Pool Cooling	8	I
36	1G41F029	8" MO VALVE (CTMT FP DR CTMT OTBD ISOL)	AB	185	1A527	-	Fuel Pool Cooling	8	I
37	1G41F032	12" AO GATE VALVE (CASK STORAGE POOL DRAIN VALVE)	AB	166	1A430	-	Fuel Pool Cooling	7	I

TABLE 3									
BASE LIST 2									
BL2#	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT
38	1G41F033	12" AO GATE VALVE (CASK STORAGE POOL DRAIN VALVE)	AB	166	1A430	-	Fuel Pool Cooling	7	I
39	1G41F035	12" GATE VALVE & GEAR ACTUATOR (SPENT FUEL POOL RETURN FROM RHR)	AB	185	1A527	-	Fuel Pool Cooling	8	I
40	1G41F041A	8" GO BUTTERFLY VALVE AND ACTUATOR W/ EXT. BONNETS (SUPPLY LINE ISOLATION)	AB	184	1A601	-	Fuel Pool Cooling	0	I
41	1G41F041B	8" GO BUTTERFLY VALVE AND ACTUATOR W/ EXT. BONNETS (SUPPLY LINE ISOLATION)	AB	184	1A446	-	Fuel Pool Cooling	0	I
42	1G41F043	10" MO GATE VALVE (FILTER DEMIN BYPASS VALVE)	AB	161	1A527	2	Fuel Pool Cooling	8	I
43	1G41F044	8" MO GATE VALVE (CTMT FP DR CTMT INBD ISOL)	CTMT	184	1A509	2	Fuel Pool Cooling	8	I
44	1G41F045	10" AO BUTTERFLY VALVE (FILTER DEMIN INLET VALVE)	AB	185	1A538	-	Fuel Pool Cooling	7	I
45	1G41F047	3" AO GATE VALVE (CONTAINMENT POOL MAKEUP WTR VLV)	CTMT	184	1A520	-	Fuel Pool Cooling	7	I
46	1G41F053	12" GATE VALVE & GEAR ACTUATOR (RWST SUPPLY/RETURN TO CTMT POOLS)	AB	166	1A428	-	Fuel Pool Cooling	0	I
47	1G41F057	10" GO BUTTERFLY VALVE (SPENT FUEL POOL TO RHR LOOP C)	AB	111	1A118	-	Fuel Pool Cooling	0	I
48	1G41F058	10" GO BUTTERFLY VALVE (SPENT FUEL POOL TO LPCS)	AB	111	1A119	-	Fuel Pool Cooling	0	I
49	1G41F059	10" GO BUTTERFLY VALVE (SPENT FUEL POOL TO RHR LOOPS A & B)	AB	100	1A101	-	Fuel Pool Cooling	0	I
50	1G41F062	10" GO BUTTERFLY VALVE (TANK OUTLET TO PUMPS)	AB	192	1A529	-	Fuel Pool Cooling	0	I
51	1G41F201	12" GATE VALVE & GEAR ACTUATOR (DRAIN/FILL LINE FROM REFUEL WTR TK ISOLATION)	CTMT	161	1A421	-	Fuel Pool Cooling	0	I
52	1G41F215	12" GATE VALVE & GEAR ACTUATOR (DRAIN/FILL LINE FROM REFUEL WTR TK ISOLATION)	AB	185	1A421	-	Fuel Pool Cooling	0	I
53	1G41F220	8" GATE VALVE & GEAR ACTUATOR (MANUAL ISOLATION DOWNSTREAM F029)	AB	185	1A527	-	Fuel Pool Cooling	0	I
54	1G41F226	10" GO BUTTERFLY VALVE (SPENT FUEL POOL TO RHR ISOLATION)	AB	203	1A527	-	Fuel Pool Cooling	0	I
55	1G41F255	10" GO BUTTERFLY VALVE (DRAIN TANK INLET)	AB	209	1A529	-	Fuel Pool Cooling	0	I
56	1G41F266	8" GO BUTTERFLY VALVE AND ACTUATOR W/ EXT. BONNETS (8" ISOLATION UPSTREAM F044)	AB	184	1A446	-	Fuel Pool Cooling	0	I
57	1G41F300A	RELIEF VALVE (FUEL POOL PMP C001A SUCT LINE PRESS RELIEF VALVE)	AB	170	1A435	-	Fuel Pool Cooling	7	I
58	1G41F300B	RELIEF VALVE (FUEL POOL PMP C001B SUCT LINE PRESS RELIEF VALVE)	AB	170	1A435	-	Fuel Pool Cooling	7	I

TABLE 3									
BASE LIST 2									
BL#	EQUIPMENT ID	DESCRIPTION	BUDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT
59	1G41F341	10" GO BUTTERFLY VALVE (SUPPLY LINE ISOLATION)	CTMT	200	1A601	-	Fuel Pool Cooling	0	I
60	1G41F500	SOLENOID VALVE (FUEL POOL CLG SYS. ISO VLV F019 SOLENOID)	AB	185	1A527	1	Fuel Pool Cooling	8	I
61	1G41F501	SOLENOID VALVE (FUEL POOL CLG SYS ISO VLVF045 SOLENOID)	AB	185	1A527	2	Fuel Pool Cooling	8	I
62	1G41M012A	HANDSWITCH (FUEL POOL PUMP A HAND SWITCH)	AB	209	1A432	1	Fuel Pool Cooling	20	I
63	1G41M012B	HANDSWITCH (FUEL POOL PUMP B HAND SWITCH)	AB	209	1A432	2	Fuel Pool Cooling	20	I
64	1G41M013	HANDSWITCH (FILTER DEMIN INLET VALVE 1G41F019)	CTMT	161	1A432	1	Fuel Pool Cooling	20	I
65	1G41M014	HANDSWITCH (FILTER DEMIN INLET VALVE 1G41F045)	CTMT	161	1A432	2	Fuel Pool Cooling	20	I
66	1G41M015	HANDSWITCH (FILTER DEMIN BYPASS VALVE 1G41F043)	CB	166	1A432	2	Fuel Pool Cooling	20	I
67	1G41M016	HANDSWITCH (FILTER DEMIN BYPASS VALVE 1G41F021)	AB	209	1A432	1	Fuel Pool Cooling	20	I
68	1G41M603	HANDSWITCH (FPCC RTN VLV CTMT OTBD ISOL 1G41F028)	CB	166	0C503	1	Fuel Pool Cooling	20	I
69	1G41M604A	HANDSWITCH (FUEL POOL PUMP A HANDSWITCH)	CB	189	0C703	1	Fuel Pool Cooling	20	I
70	1G41M604B	HANDSWITCH (FUEL POOL PUMP B HANDSWITCH)	CB	166	0C504	2	Fuel Pool Cooling	20	I
71	1G41M605	HANDSWITCH (FILTER DEMIN INLET VALVE 1G41F045)	AB	209	0C504	2	Fuel Pool Cooling	20	I
72	1G41M606	HANDSWITCH (FILTER DEMIN INLET VALVE 1G41F019)	CB	166	0C504	1	Fuel Pool Cooling	20	I
73	1G41M607	HANDSWITCH (FILTER DEMIN BYPASS VALVE 1G41F043)	CB	166	0C504	2	Fuel Pool Cooling	20	I
74	1G41M608	HANDSWITCH (FILTER DEMIN BYPASS VALVE 1G41F021)	CB	189	0C703	1	Fuel Pool Cooling	20	I
75	1G41N006A	PRESSURE SW (FUEL POOL PUMP C001A SUCTION PRESSURE SWITCH)	AB	166	1A428	1	Fuel Pool Cooling	20	I
76	1G41N006B	PRESSURE SW (FUEL POOL PUMP C001B SUCTION PRESSURE SWITCH)	AB	166	1A428	2	Fuel Pool Cooling	20	I
77	1G41N007A	PRESSURE SWITCH (FUEL POOL PUMP C001A DISCH PRESSURE LOW SWITCH)	AB	166	1A428	N	Fuel Pool Cooling	20	I
78	1G41N007B	PRESSURE SWITCH (FUEL POOL PUMP C001B DISCH PRESSURE LOW SWITCH)	AB	166	1A428	N	Fuel Pool Cooling	20	I
79	1G41N011	FLOW XMITTER (UPPER CONTAINMENT POOL RETURN FLOW TRANSMITTER)	AB	185	1A527	N	Fuel Pool Cooling	18	I

TABLE 3									
BASE LIST 2									
BL 2#	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT
80	1G41N012	FLOW XMITTER (FILTER/DEMINEALIZER BYPASS FLOW TRANSMITTER)	AB	185	1A527	N	Fuel Pool Cooling	18	I
81	1G41N013A	TEMPERATURE ELEMENT (CASK STORAGE POOL TEMPERATURE ELEMENT)	AB	209	1A438	1	Fuel Pool Cooling	19	I
82	1G41N013B	TEMPERATURE ELEMENT (CASK STORAGE POOL TEMPERATURE ELEMENT)	AB	209	1A438	1	Fuel Pool Cooling	19	I
83	1G41N014A	TEMPERATURE ELEMENT (SPENT FUEL STORAGE POOL TEMPERATURE ELEMENT)	AB	209	1A431	1	Fuel Pool Cooling	19	I
84	1G41N014B	TEMPERATURE ELEMENT (SPENT FUEL STORAGE POOL TEMPERATURE ELEMENT)	AB	209	1A431	2	Fuel Pool Cooling	19	I
85	1G41N018A	PRESS. XMITTER (FUEL POOL PUMP A DISCH PRESSURE TRANSMITTER)	AB	166	1A428	N	Fuel Pool Cooling	18	I
86	1G41N018B	PRESS. XMITTER (FUEL POOL PUMP B DISCH PRESSURE TRANSMITTER)	AB	166	1A428	N	Fuel Pool Cooling	18	I
87	1G41N021	HI/LO SWITCH (UPPER CONTAINMENT POOL LEVEL HI/LO SWITCH)	AB	208	1A601	N	Fuel Pool Cooling	20	I
88	1G41N022	HI/LO SWITCH (UPPER CONTAINMENT STORAGEPOOL LEVEL HI/LO SWITCH)	AB	208	1A601	N	Fuel Pool Cooling	20	I
89	1G41N024A	TRANSMITTER GAGE PRESSURE (FUEL POOL DRAIN TANK A001 LEVEL TRANSMITTER)	AB	185	1A529	1	Fuel Pool Cooling	18	I
90	1G41N024B	TRANSMITTER GAGE PRESSURE (FUEL POOL DRAIN TANK A001 LEVEL TRANSMITTER)	AB	185	1A529	2	Fuel Pool Cooling	18	I
91	1G41N025	POSITION SWITCH (FPCC FLTR DMIN D001 INLETISOL VLV F045 POS SWITCH)	AB	185	1A527	2	Fuel Pool Cooling	20	I
92	1G41N026A	TEMP. XMITTER (CASK & FUEL STORAGE POOLS TEMPERATURE TRANSMITTER)	AB	209	1A432	1	Fuel Pool Cooling	18	I
93	1G41N026B	TEMP. XMITTER (CASK & FUEL STORAGE POOLS TEMPERATURE TRANSMITTER)	AB	209	1A432	2	Fuel Pool Cooling	18	I
94	1G41N027	LIMIT SWITCH (FPCC FLTR DMIN D001 BYP VLV F043 POSITION SWITCH)	AB	161	1A527	2	Fuel Pool Cooling	20	I
95	1G41N033A	FLOW SWITCH (FUEL POOL PUMP C001A LOW FLO (PMP SHUT OFF) SWITCH)	AB	166	1A432	1	Fuel Pool Cooling	20	I

TABLE 3									
BASE LIST 2									
BL2#	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT
96	1G41N033B	FLOW SWITCH (FUEL POOL PUMP C001 B LOW FLO (PMP SHUT OFF) SWITCH)	AB	166	1A432	2	Fuel Pool Cooling	20	I
97	1G41N101	POSITION SWITCH (RG 1.97) (FUEL POOL DR LINE INBD ISOL VLV F044 POS SWITCH)	CTMT	184	1A509	2	Fuel Pool Cooling	20	I
98	1G41N102	POSITION SWITCH (RG 1.97) (FUEL POOL DR LINE OTBD ISOL VLV F029 POS SWITCH)	AB	185	1A527	1	Fuel Pool Cooling	20	I
99	1G41N103	POSITION SWITCH (RG 1.97) (FUEL POOL SPLY LINE OTBD ISOL VLV F028 POS SWITCH)	AB	185	1A527	1	Fuel Pool Cooling	20	I
100	1G41N124	POSITION SWITCH (FPCC FLTR DMIN D001 INLETISOL VLV F019 POS SWITCH)	AB	185	1A527	1	Fuel Pool Cooling	20	I
101	1G41N126	LIMIT SWITCH (FPCC FLTR DMIN D001 BYP VLV F021 POSITION SWITCH)	AB	185	1A527	1	Fuel Pool Cooling	20	I
102	1G41N600A	LEVEL SWITCH HIGH LOW (FUEL POOL DRAIN TANK A001LEVEL SWITCH HI/LO SWITCH)	CB	189	0C703	1	Fuel Pool Cooling	20	I
103	1G41N600B	LEVEL SWITCH HIGH LOW (FUEL POOL DRAIN TANK A001LEVEL HI/LO SWITCH)	CB	166	0C504	2	Fuel Pool Cooling	20	I
104	1G41N601A	LEVEL SWITCH LOW LOW (FUEL POOL DRAIN TANK LEVEL SWITCH)	CB	189	0C703	1	Fuel Pool Cooling	20	I
105	1G41N601B	LEVEL SWITCH HIGH LOW (FUEL POOL DRAIN TANK LEVEL SWITCH)	CB	166	0C504	2	Fuel Pool Cooling	20	I
106	1G41N602A	TEMP. SWITCH HIGH (CASK POOL TEMPERATURE SWITCH)	CB	189	0C703	1	Fuel Pool Cooling	20	I
107	1G41N602B	TEMP. SWITCH HIGH (CASK POOL TEMPERATURE SWITCH)	CB	166	0C504	2	Fuel Pool Cooling	20	I
108	1G41N604A	TEMP. SWITCH HIGH (SPENT FUEL POOL TEMPERATURE SWITCH)	CB	189	0C703	1	Fuel Pool Cooling	20	I
109	1G41N604B	TEMP. SWITCH HIGH (SPENT FUEL POOL TEMPERATURE SWITCH)	CB	166	0C504	2	Fuel Pool Cooling	20	I
110	1G41N606A	TIMER (FPCC SUMP LEAK DETECTION FILL TIMER)	CB	189	0C703	1	Fuel Pool Cooling	20	I
111	1G41N606B	TIMER (FPCC SUMP LEAK DETECTION FILL TIMER)	CB	166	0C504	2	Fuel Pool Cooling	20	I
112	1G41N607A	TIMER (FPCC SUMP LEAK DETECTION DRAIN TIMER)	CB	189	0C703	1	Fuel Pool Cooling	20	I
113	1G41N607B	TIMER (FPCC SUMP LEAK DETECTION DRAIN TIMER)	CB	166	0C504	2	Fuel Pool Cooling	20	I

TABLE 3									
BASE LIST 2									
BLD#	EQUIPMENT ID	DESCRIPTION	BLDG	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT
114	1G41P002	FPCCU LOCAL RACK (DIV 1 EMERGENCY SAFEGUARDSYSTEM SM CONTROL PANEL)	AB	209	1A432	1	Fuel Pool Cooling	20	I
115	1G41P003	FPCCU LOCAL RACK (DIV 2 EMERGENCY SAFEGUARDSYSTEM CONTROL PANEL)	AB	209	1A432	2	Fuel Pool Cooling	20	I
116	1G41R601A	LEVEL IND. (FUEL POOL DRAIN TANK A001 LEVEL INDICATOR)	CB	189	0C703	1	Fuel Pool Cooling	18	I
117	1G41R601B	LEVEL INDICATOR (FUEL POOL DRAIN TANK A001 LEVEL INDICATOR)	CB	166	0C504	2	Fuel Pool Cooling	18	I
118	1G41R603A	LEVEL MONITOR (CASK STORAGE POOL TEMPERATURE INDICATOR)	CB	189	0C703	1	Fuel Pool Cooling	19	I
119	1G41R603B	LEVEL MONITOR (CASK STORAGE POOL TEMPERATURE INDICATOR)	CB	166	0C504	2	Fuel Pool Cooling	19	I
120	1G41R605A	TEMPERATURE INDICATOR (SPENT FUEL STORAGE POOL TEMPERATURE INDICATOR)	CB	189	0C703	1	Fuel Pool Cooling	19	I
121	1G41R605B	TEMPERATURE INDICATOR (SPENT FUEL STORAGE POOL TEMPERATURE INDICATOR)	CB	166	0C504	2	Fuel Pool Cooling	19	I

TABLE 4														
SWEL 2														
ISWEL #	EQUIPMENT ID	DESCRIPTION	BRIDGE	ELEVATION	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANC	NR	RDD	DWG	AWC #
1	G41C001A	Fuel Pool Pump	AB	166	1A432	1	N/A	5	I	N		N	M-1015A, Rev. 7	48
2	G41F501	Fuel Pool Clg Sys Iso VLV F045 Solenoid	AB	185	1A527	2	N/A	8	I	N		N	M-1351E, Rev. 13 M-1088E, Rev. 19	49
3	G41F045	Filter Demin Inlet Valve	AB	185	1A527	-	N/A	8	I	N		N	M-1351E, Rev. 13 M-1088E, Rev. 19	49
4	G41N012	Filter/Demineralizer Bypass Flow Transmitter	AB	185	1A527	-	N/A	18	I	N		N	J-1509C, Rev. 1	49
5	G41N007B	Fuel Pool Pump C001B Disch Pressure Low Switch	AB	166	1A428	-	N/A	18	I	N		N	FSK-I-0113G-808-V, Rev. 2 J-1508C, Rev. 2	47
6	G41N011	Upper Containment Pool Return Flow Transmitter	AB	185	1A527	-	N/A	18	I	N		N	J-1509C, Rev. 1	49
7	G41N018B	Fuel Pool Pump B Disch Pressure Transmitter	AB	166	1A428	-	N/A	18	I	Y		N	FSK-I-0113G-808-V, Rev. 2 J-1508C, Rev. 2	47
8	G41P002	Div 1 Emergency Safeguard System SM Control Panel	AB	166	1A432	1	N/A	20	I	N		N	J-1508C, Rev. 2 137D8019	48
9	G41A001	Fuel Pool Drain Tank	AB	191	1A537	-	N/A	21	I	Y		N	L-3264A SK-F2-2009NC-4A SK-F2-2009NC-4A FSK-S-1088C-152-B, Rev. 6 M-1016, Rev. 14	50

Attachment C

SEISMIC WALKDOWN CHECKLISTS (SWCs)

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 001

Equipment ID No. M23Y001 Equip. Class¹ 0 - Other

Equipment Description Lower Containment Personnel Airlock

Location: Bldg. AB/CTMT Floor El. 119 Room, Area 1A215.09

Manufacturer, Model, Etc. (optional but recommended) Woolley, WJ CO, 1FA-PB-1

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
N/A, Containment Personnel Airlock is part of AB/CTMT structure. Airlock is embedded into AB/CTMT wall.

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 001

Equipment ID No. M23Y001 Equip. Class: 0 - Other

Equipment Description Lower Containment Personnel Airlock

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
This equipment is not a soft target.

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
CTMT side - Stair structure and HVAC duct rigidly supported, AB side - HVAC duct and cable tray rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
All attached lines (conduit/cable) have adequate flexibility.

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


Other Adverse Conditions

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

Comments

Blown out light bulb inside the airlock. Oil mat and visible oil spill found on the base of the hydraulic pump located inside the airlock. (CR 2012-11034 Initiated WR# 00284911). See photo.

Evaluated by: Kyong S. (Jason) Pak  Date: 9/25/2012

Tori Robinson  9/25/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 001

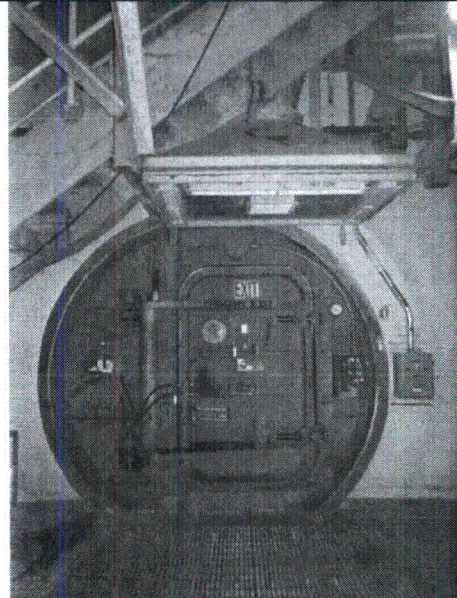
Equipment ID No. M23Y001 Equip. Class: 0 - Other

Equipment Description Lower Containment Personnel Airlock

Photographs



Note: View of Personnel Airlock from AB side



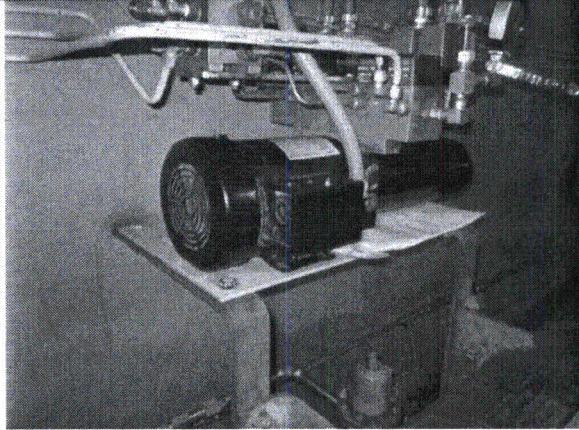
Note: View of Personnel Airlock from CTMT side

Status: Y N U

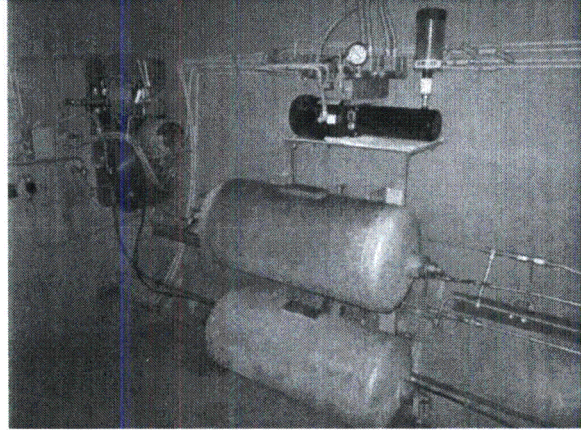
Seismic Walkdown Checklist (SWC) SWEL1- 001

Equipment ID No. M23Y001 Equip. Class: 0 - Other

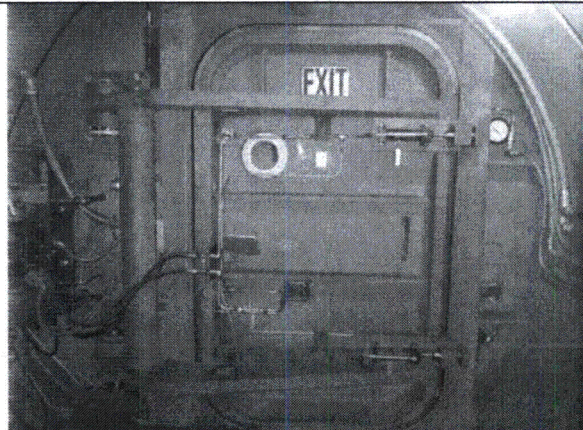
Equipment Description Lower Containment Personnel Airlock



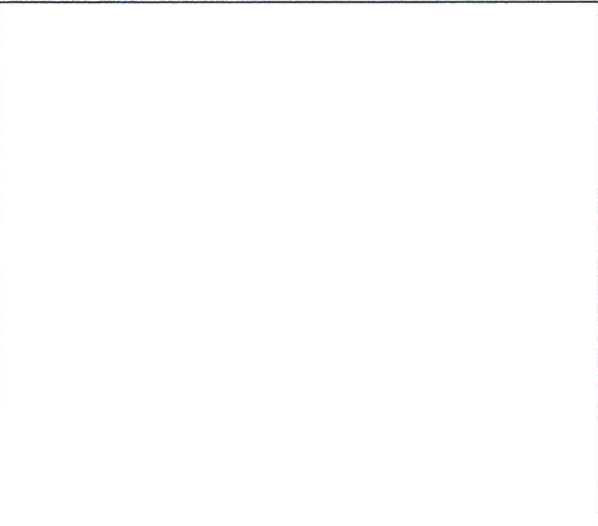
Note: *Visible oil leak on the hydraulic pump*



Note: *Between AB and CTMT*



Note: *Between AB and CTMT*



Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 002**Equipment ID No. P75C015A Equip. Class¹ 0 - OtherEquipment Description STBY DG Turbocharger Right BankLocation: Bldg. DG Floor El. 133 Room, Area 1D310, DSLManufacturer, Model, Etc. (optional but recommended) Elliott, MP-022 (BC0-90G)**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
Item is mounted on a steel baseplate with (4) bolts. Item is mounted to diesel, diesel is anchored to concrete pedestal

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
Turbocharger mounted to steel.

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
2 of 4 mounting bolts verified to be consistent with vendor document 460000451. 2 bolts were not visible.

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 002

Equipment ID No. P75C015A Equip. Class: 0 - Other

Equipment Description STBY DG Turbocharger Right Bank

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
All over head lighting is mounted on swivel mounts

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

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 9/26/2012

Fred Hopkins  9/26/2012

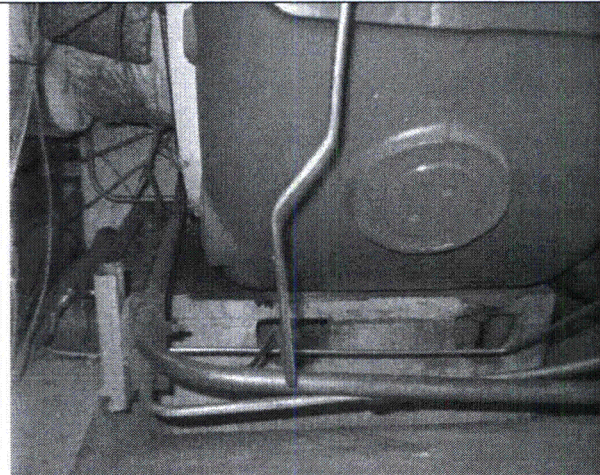
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 002

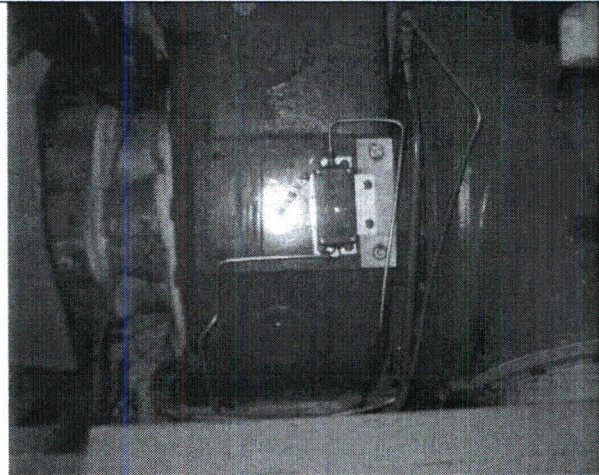
Equipment ID No. P75C015A Equip. Class' 0 - Other

Equipment Description STBY DG Turbocharger Right Bank

Photographs



Note: *Mounting*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 003

Equipment ID No. R20S610A-B Equip. Class¹ 1 - MCC and Wall-Mounted Contactors

Equipment Description Load Center Unit Substation / MCC16B11

Location: Bldg. AB Floor El. 119 Room, Area 1A221, 10

Manufacturer, Model, Etc. (optional but recommended) Klockner-Moeller, 170

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
MCC is welded to the floor (embedded steel). No anchorage hardware on this equipment.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Floor is covered with epoxy coating; no visual indication of corrosion found.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Floor is covered with epoxy coating; no visual indication of concrete crack found.

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Based on QP 9.00, MCC shall be continuously welded to the embedded channels (Dwg. C-1305C) with 3/16" fillet weld on front and rear sides. Weld size couldn't be verified, however full length of MCC front and rear are verified to be welded to the floor.

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 003

Equipment ID No. R20S610A-B Equip. Class: 1 - MCC and Wall-Mounted Contactors

Equipment Description Load Center Unit Substation / MCC16B11

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
One light fixture has one end supported from ceiling and the other end tied-off to the cable tray support steels on both sides with wire ropes. See photos. Additionally, there are potential of fluorescent light bulbs fall out from fixture.
Light fixtures are not directly located over any safety related equipment. All of light fixtures nearby MCC, including above mentioned fixture, are judged to be well supported and falling light bulbs doesn't pose seismic concern to the MCC, therefore acceptable.
One of the light fixture nearby the MCC is hung using S-hook. However, this condition doesn't pose a seismic concern.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduits have been used for routing cables to the MCC, and flex cables from cable trays are routed to the MCC.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak *Kyong S. Pak* Date: 9/28/2012

Tori Robinson *Tori Robinson* 9/28/2012

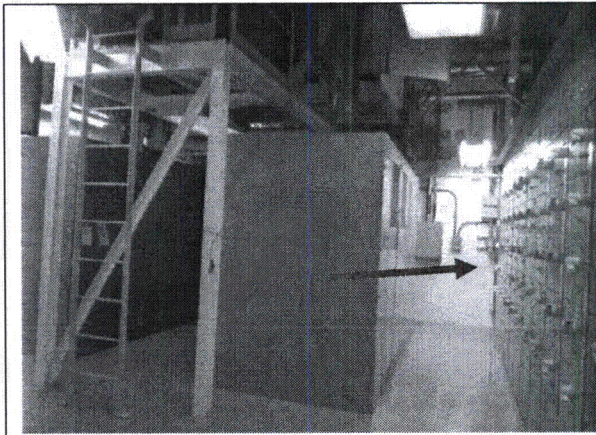
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 003

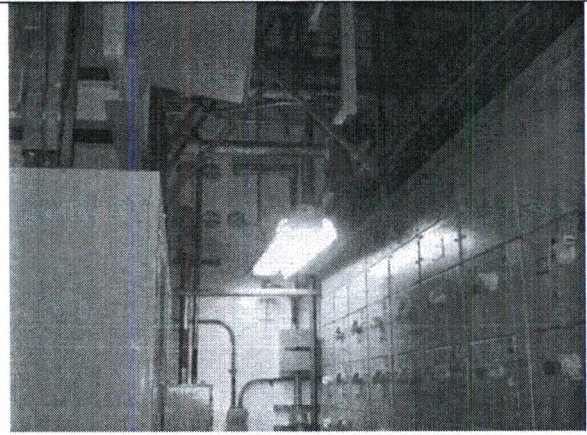
Equipment ID No. R20S610A-B Equip. Class¹ 1 - MCC and Wall-Mounted Contactors

Equipment Description Load Center Unit Substation / MCC16B11

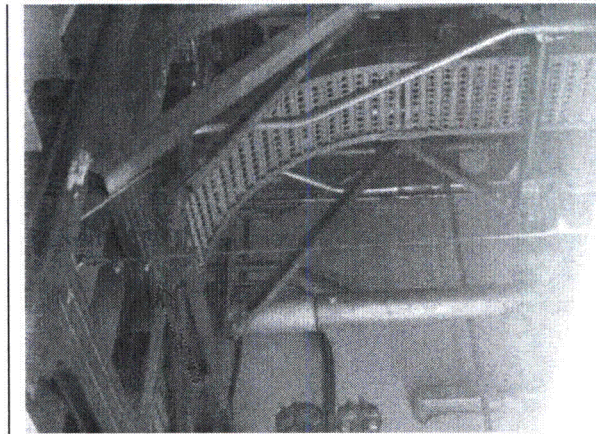
Photographs



Note: MCC 16B11



Note: Light fixture supported one side from ceiling and the other side tied-off to the cable tray support steels with wire ropes on both sides at four locations.



Note: Light fixture supported one side from ceiling, but the other side is tied-off to the steel on both sides

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 004**Equipment ID No. R20S620A-B Equip. Class¹ 1 - MCC and Wall-Mounted ContactorsEquipment Description Load Center Unit Substation / MCC16B21Location: Bldg. AB Floor El. 139 Room, Area 1A320, 08Manufacturer, Model, Etc. (optional but recommended) Klockner-Moeller, 170**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
MCC is welded to the floor (embedded steel). No anchorage hardware on this equipment.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Floor is covered with epoxy coating; no visual indication of corrosion found.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Floor is covered with epoxy coating; no visual indication of concrete crack found.

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Based on QP 9.00, MCC shall be continuously welded to the embedded channels (Dwg. C-1305C) with 3/16" fillet weld on front and rear sides. Weld size couldn't be verified, however full length of MCC front and rear are verified to be welded to the floor.

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

¹ Enter the equipment class name from EPRI.1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 004

Equipment ID No. R20S620A-B Equip. Class: 1 - MCC and Wall-Mounted Contactors

Equipment Description Load Center Unit Substation / MCC16B21

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
*Overhead items (lighting, conduit, cable tray, etc.) are rigidly supported.
Light fixtures are not directly located over any safety related equipment. There are potential of fluorescent light bulbs fall out from fixture. All of light fixtures nearby MCC are judged to be well supported and falling light bulbs doesn't pose seismic concern to the MCC, therefore acceptable.*

- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduits have been used for routing cables to the MCC, and flex cables from three cable trays are routed to the MCC.

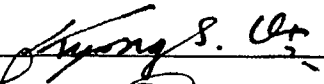
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak  Date: 9/27/2012

Tori Robinson  9/27/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 004

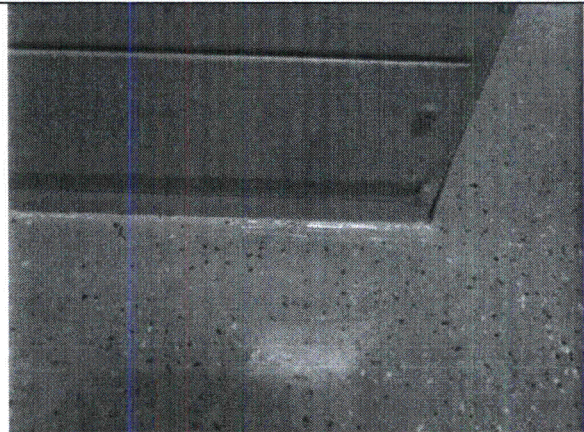
Equipment ID No. R20S620A-B Equip. Class¹ 1 - MCC and Wall-Mounted Contactors

Equipment Description Load Center Unit Substation / MCC16B21

Photographs



Note: MCC



Note: MCC welded to the embedded channel

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 005**Equipment ID No. R21S501-A Equip. Class¹ 3 - Medium Voltage, Metal-Clad SwitchgearEquipment Description 4.16KV SWITCHGEAR BUS 15AALocation: Bldg. CB Floor El. 111 Room, Area OC202, CBManufacturer, Model, Etc. (optional but recommended) GOULD BROWN BOVERI, S.O. 33-50469**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 005

Equipment ID No. R21S501-A Equip. Class: 3 - Medium Voltage, Metal-Clad Switchgear

Equipment Description 4.16KV SWITCHGEAR BUS 15AA

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments

Evaluated by: _____ Date: _____

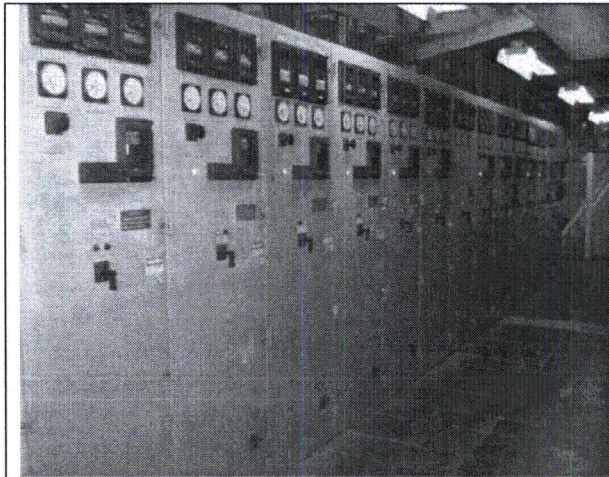
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 005

Equipment ID No. R21S501-A Equip. Class: 3 - Medium Voltage, Metal-Clad Switchgear

Equipment Description 4.16KV SWITCHGEAR BUS 15AA

Photographs



Note:

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 005

Equipment ID No. R21S501-A Equip. Class: 3 - Medium Voltage, Metal-Clad Switchgear

Equipment Description 4.16KV SWITCHGEAR BUS 15AA

Note:	Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 006**Equipment ID No. E51C001 Equip. Class¹ 5 - Horizontal PumpsEquipment Description Reactor Core Isolation Cooling PumpLocation: Bldg. AB Floor El. 93 Room, Area 1A104.10Manufacturer, Model, Etc. (optional but recommended) SULZER BINGHAM PUMPS, INC. 6X6X10.5-D-CP**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
Double nutted onto imbedded rods

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Verified with drawings C-1383-A and 105D5646

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 006

Equipment ID No. E51C001 Equip. Class: 5 - Horizontal Pumps

Equipment Description Reactor Core Isolation Cooling Pump

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
Structural members and plugs over head all adequately supported

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Attached piping is adequately supported

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton *Ch Wh* Date: 10/4/2012

Fred Hopkins *Fred Hopkins* 10/4/2012

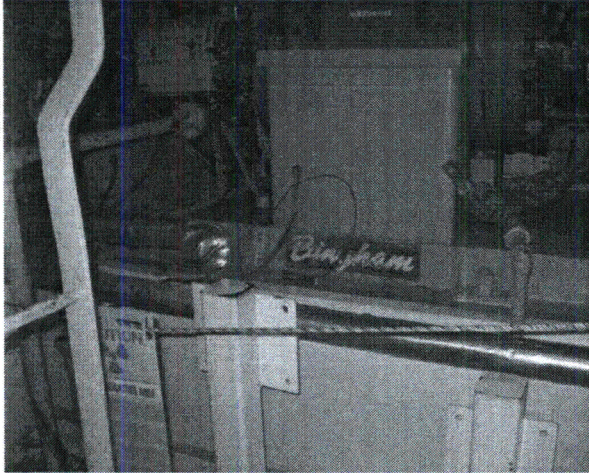
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 006

Equipment ID No. E51C001 Equip. Class¹ 5 - Horizontal Pumps

Equipment Description Reactor Core Isolation Cooling Pump

Photographs

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	<p>Note:</p>

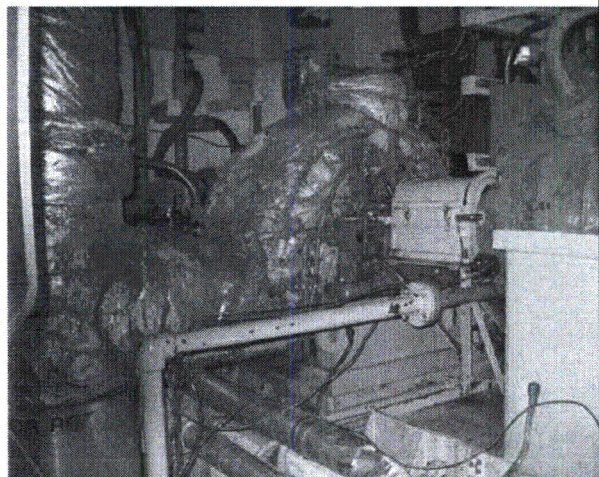
Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 006

Equipment ID No. E51C001 Equip. Class¹ 5 - Horizontal Pumps

Equipment Description Reactor Core Isolation Cooling Pump



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 007**Equipment ID No. P41C001A Equip. Class¹ 6 - Vertical PumpsEquipment Description SSW Motor A & SSW Pump ALocation: Bldg. SSW Floor El. 133 Room, Area 1M110, SSWManufacturer, Model, Etc. (optional but recommended) Motor: GE, 5K6347XC135A, Pump: Enertech
Goulds, VIT-FF-24x30 BHC 2 Stage**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
*Pump is mounted to the concrete floor using (4) anchor bolts, and motor is mounted on top of pump using (12) bolts flanged connection.
 No bent, broken, missing or loose hardware found.*

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Surface corrosion has been observed on flange bolts connecting the piping to the pump. The corrosion was visually inspected and determined to be limited in extent and depth. Therefore, it is judged to have negligible affects on the ability of the affected components.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No visual indication of concrete crack found

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
*Anchorage was checked against drawings M-931.0-Q1P41C001B-1.2-1-3 & M-087.1-Q1P41C001A-A-1.1-001 for the pump and drawing in vendor manual 460004160 for the motor, and the configuration shown on the drawings matched the field condition.
 Note: The anchor bolt size is missing on the drawing; field measurement of bolt dia. was ~1 1/2" which is slightly smaller than bolt hole size on the drawings (1 3/4" & 1 5/8" dia.), therefore it is judged to be acceptable based on engineering practice.*

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 007

Equipment ID No. P41C001A Equip. Class: 6 - Vertical Pumps

Equipment Description SSW Motor A & SSW Pump 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
This equipment is not a soft target.

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 items are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for routing cable to the motor, therefore attached line has adequate flexibility. Additionally, tubings are routed to the pump/motor with sufficient flexibility.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak *Kyong S. Pak* Date: 9/24/2012

Tori Robinson *Tori Robinson* 9/24/2012

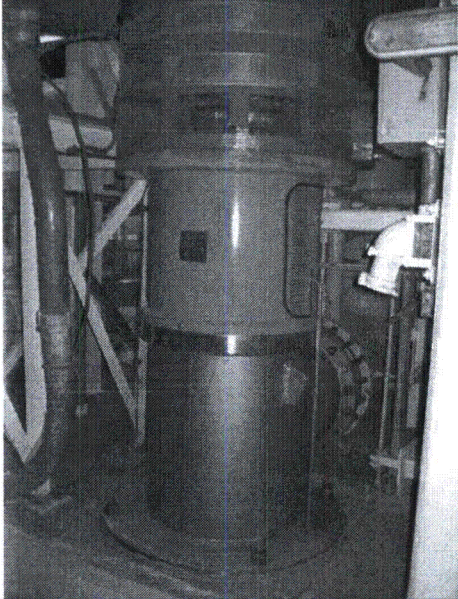
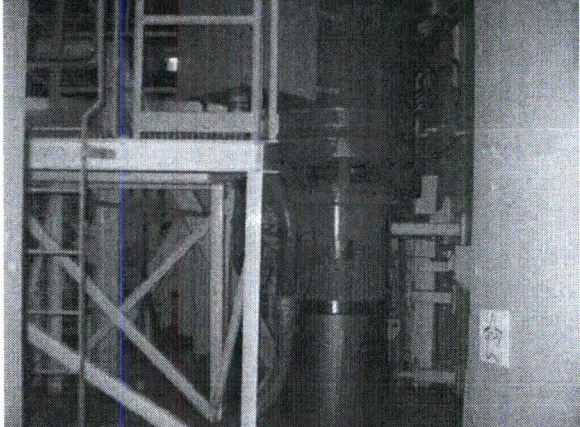
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 007

Equipment ID No. P41C001A Equip. Class¹ 6 - Vertical Pumps

Equipment Description SSW Motor A & SSW Pump A

Photographs

	
<p>Note: SSW Pump and Motor, surface corrosion on bolts</p>	<p>Note: SSW Pump and Motor</p>

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 008**Equipment ID No. P41C002 (C) Equip. Class¹ 6 - Vertical PumpsEquipment Description HPCS Service Water PumpLocation: Bldg. SSW Floor El. 133 Room, Area 1M111, SSWManufacturer, Model, Etc. (optional but recommended) Motor: GE, 5K6267XH4023A, Pump: Eneritech
Goulds, VIT-FF-10x14 JHC**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
*Pump is mounted to the concrete floor using (4) anchor bolts, and motor is mounted on top of pump using (12) bolts flanged connection.
 No bent, broken, missing or loose hardware found.*

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Surface corrosion has been observed on baseplate for the pump mounting to the floor. See photo. The corrosion was visually inspected and determined to be limited in extent and depth. Therefore, it is judged to have negligible affects on the ability of the affected components.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
No visual indication of concrete crack found

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 008

Equipment ID No. P41C002 (C) Equip. Class 6 - Vertical Pumps

Equipment Description HPCS Service Water Pump

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
This equipment is not a soft target.

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 items are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for routing cable to the motor, therefore attached line has adequate flexibility. Additionally, tubings are routed to the pump/motor with sufficient flexibility.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak  Date: 9/24/2012

Tori Robinson  9/24/2012

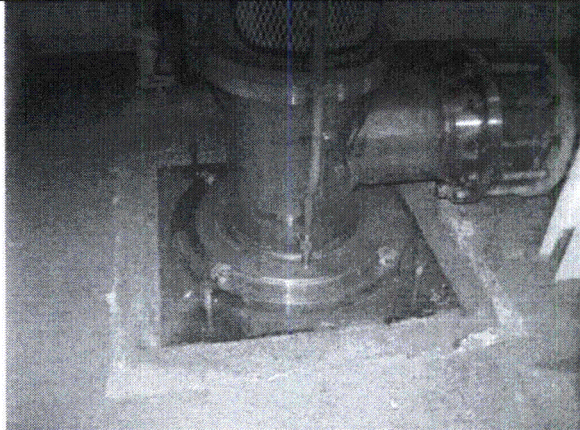
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 008

Equipment ID No. P41C002 (C) Equip. Class¹ 6 - Vertical Pumps

Equipment Description HPCS Service Water Pump

Photographs



Note: *Surface corrosion found on baseplate of pump P41C002*

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 009**Equipment ID No. B21F022A Equip. Class¹ 7 - Pneumatic-Operated ValvesEquipment Description MSIV (MSL A DRWL INBD ISOL)Location: Bldg. CTMT Floor El. 135 Room, Area 1A112, CTMTManufacturer, Model, Etc. (optional but recommended) Atwood & Morrill, 13561-01-H**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 009

Equipment ID No. B21F022A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description MSIV (MSL A DRWL INBD ISOL)

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 009

Equipment ID No. B21F022A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description MSIV (MSL A DRWL INBD ISOL)

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 009

Equipment ID No. B21F022A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description MSIV (MSL A DRWL INBD ISOL)

Note:	Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 010**Equipment ID No. B21F028C Equip. Class¹ 7 - Pneumatic-Operated ValvesEquipment Description MSIV (MSL C CTMT OTBD ISOL)Location: Bldg. AB Floor El. 139 Room, Area 1A305, 08Manufacturer, Model, Etc. (optional but recommended) Atwood & Morrill, 13561-01-H**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 010

Equipment ID No. B21F028C Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description MSIV (MSL C CTMT OTBD ISOL)

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 010

Equipment ID No. B21F028C Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description MSIV (MSL C CTMT OTBD ISOL)

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 010

Equipment ID No. B21F028C Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description MSIV (MSL C CTMT OTBD ISOL)

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 011

Equipment ID No. P41F024A Equip. Class¹ 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve

Location: Bldg. DG Floor El. 133 Room, Area 1D310, DSL

Manufacturer, Model, Etc. (optional but recommended) Anderson Greenwood & Co., Type 81P

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 011

Equipment ID No. P41F024A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve

Interaction Effects

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

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 Lighting or tile above item.

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

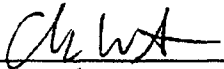
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
The item is in an open location free of any interaction.

Comments

None

Evaluated by: Chase Wharton  Date: 9/26/2012

Fred Hopkins  9/26/2012

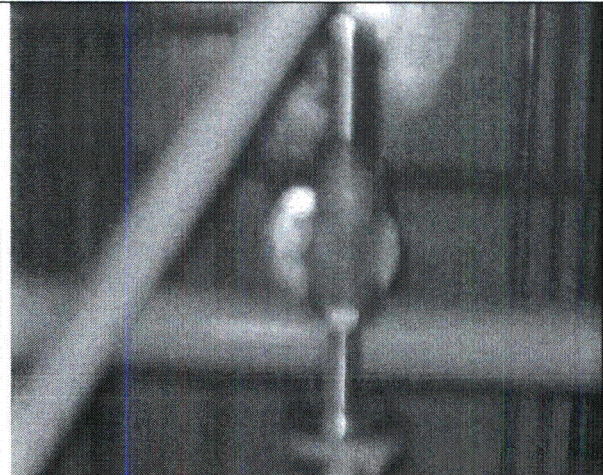
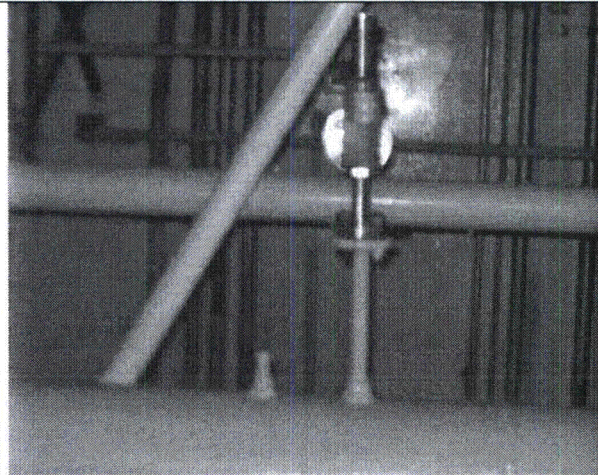
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 011

Equipment ID No. P41F024A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve

Photographs



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 012**Equipment ID No. P41F084A Equip. Class¹ 7 – Pneumatic-Operated ValvesEquipment Description Safety Relief Valve (RHR PUMP A SEAL CLR PRESSRELIEF VALVE)Location: Bldg. AB Floor El. 93 Room, Area 1A103.07Manufacturer, Model, Etc. (optional but recommended) ANDERSON GREENWOOD & CRO.
81PFS406A08AG-N3**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?
Inline valve Y N U

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 012

Equipment ID No. P41F084A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (RHR PUMP A SEAL CLR PRESSRELIEF VALVE)

Interaction Effects

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

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

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


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

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

Valve was located in a High Rad High contamination zone and the valve could be seen from outside of the contamination zone/High Rad Zone. The picture was taken from a distance, and the camera was unable to focus.

Evaluated by: Chase Wharton  Date: 10/8/2012

Fred Hopkins  10/8/2012

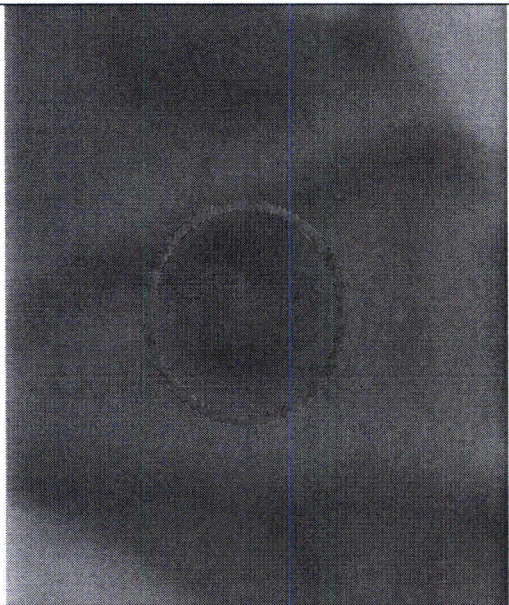
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 012

Equipment ID No. P41F084A Equip. Class¹ 7 – Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (RHR PUMP A SEAL CLR PRESSRELIEF VALVE)

Photographs

	
<p>Note:</p>	<p>Note:</p>

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 013**Equipment ID No. P41F100B Equip. Class¹ 7 - Pneumatic-Operated ValveEquipment Description Safety Relief Valve (RHR HX B PRESS RELIEF VLV)Location: Bldg. AB Floor El. 93 Room, Area 1A106,08Manufacturer, Model, Etc. (optional but recommended) ANDERSON GREENWOOD & CRO.81PFS406A08AG-N3**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
The inline valve is flanged connection.

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 013

Equipment ID No. P41F100B Equip. Class: 7 - Pneumatic-Operated Valve

Equipment Description Safety Relief Valve (RHR HX B PRESS RELIEF VLV)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Adequate clearance from 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
Structural steel beams and grating is in the overhead and are adequately supported, therefore will not cause any adverse seismic issues. Lights were not installed directly over this piece of equipment.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
The inline valve has no lines or conduits attached

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton *Ch Wh* Date: 10/4/2012

Fred Hopkins *Fred Hopkins* 10/4/2012

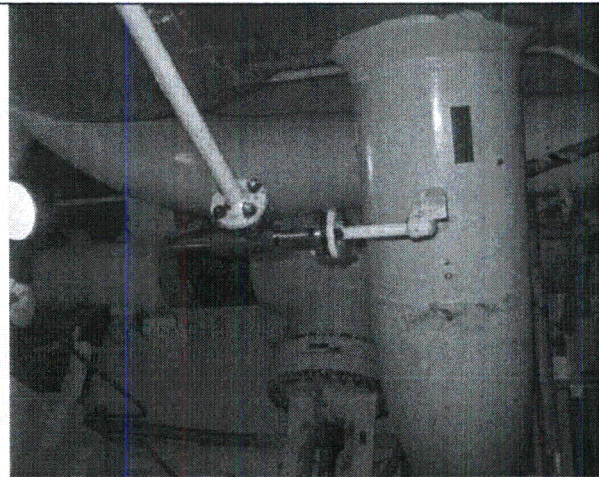
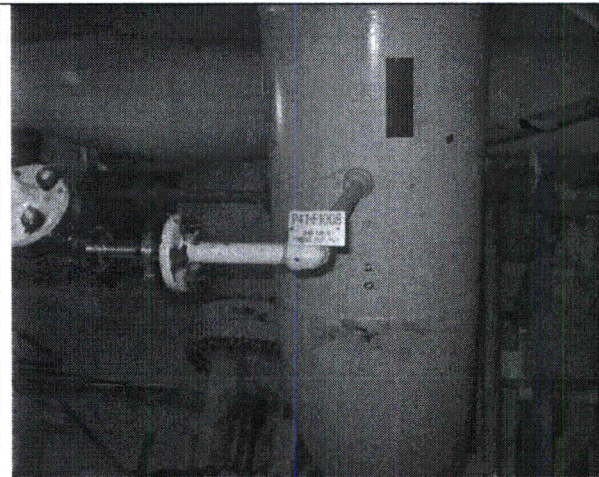
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 013

Equipment ID No. P41F100B Equip. Class: 7 - Pneumatic-Operated Valve

Equipment Description Safety Relief Valve (RHR HX B PRESS RELIEF VLV)

Photographs



Note:

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 014

Equipment ID No. C11F181 Equip. Class¹ 7 -Pneumatic-Operated Valves

Equipment Description Globe Valve (SCRAM DISCH VOL DR MAN Handwheel)

Location: Bldg. CTMT Floor El. 135 Room, Area 1A311, CTMT

Manufacturer, Model, Etc. (optional but recommended) ITT Hammel Dahl/GE, 522FRR62HAZ9

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 014

Equipment ID No. C11F181 Equip. Class 7 -Pneumatic-Operated Valves

Equipment Description Globe Valve (SCRAM DISCH VOL DR MAN Handwheel)

Interaction Effects

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

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 is adequately supported

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex lines are attached and in good condition.

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

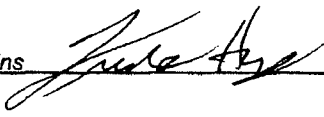
Other Adverse Conditions

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

Comments

none

Evaluated by: Chase Wharton  Date: 9/27/2012

Fred Hopkins  9/27/2012

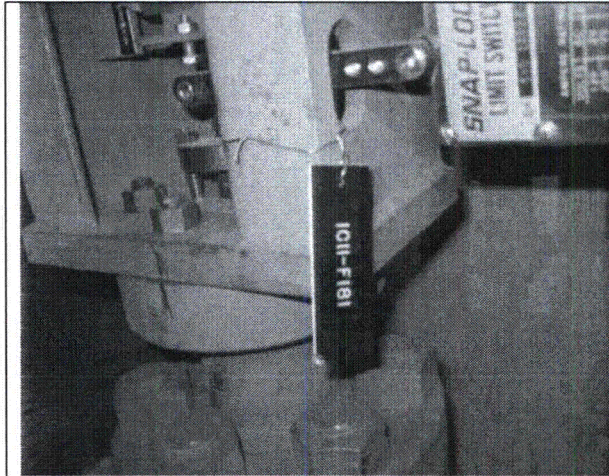
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 014

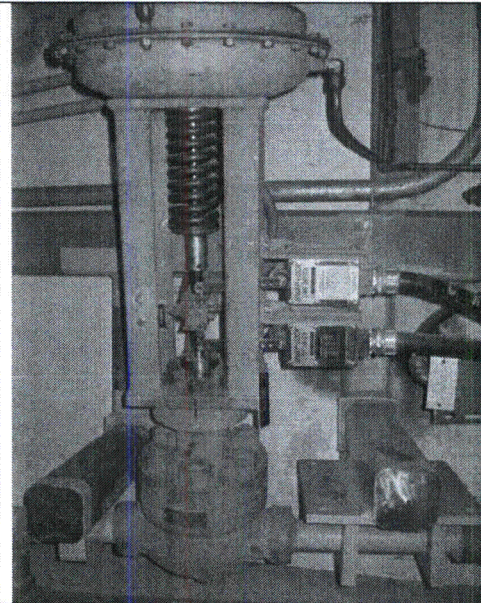
Equipment ID No. C11F181 Equip. Class¹ 7 -Pneumatic-Operated Valves

Equipment Description Globe Valve (SCRAM DISCH VOL DR MAN Handwheel)

Photographs



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 015

Equipment ID No. E12F055A Equip. Class¹ 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (RHR HX A Pressure Relief Valve)

Location: Bldg. AB Floor El. 139 Room, Area 1A304, 07

Manufacturer, Model, Etc. (optional but recommended) LONERGAN, JE CO, ED-3

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 015

Equipment ID No. E12F055A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (RHR HX A Pressure Relief Valve)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
This equipment is not a soft target.

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 items (mainly cable trays) are rigidly supported.

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

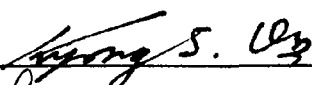
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

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

None

Evaluated by: Kyong S. (Jason) Pak  Date: 10/8/2012

Tori Robinson  10/8/2012

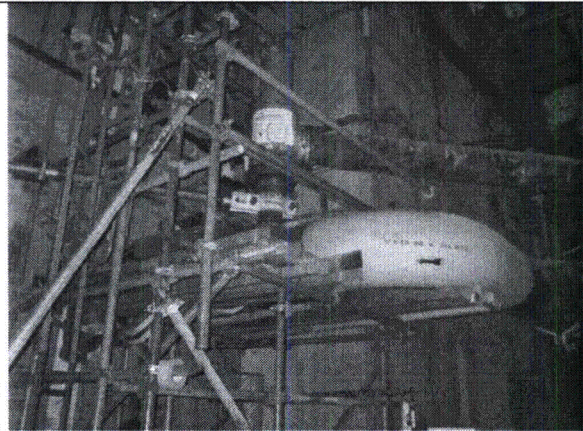
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 015

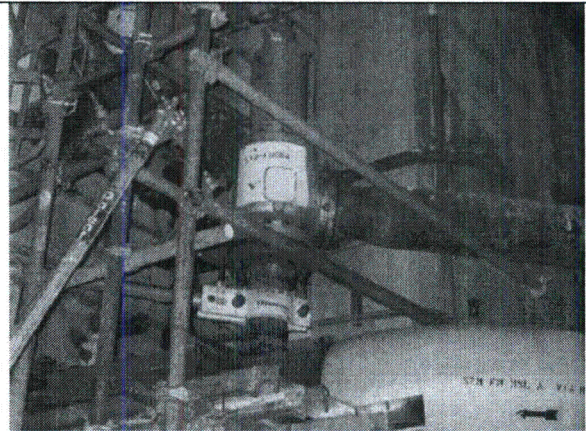
Equipment ID No. E12F055A Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (RHR HX A Pressure Relief Valve)

Photographs



Note: *General view of the area*



Note: *Valve E12F055A*

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 016**Equipment ID No. E61F007 Equip. Class: 7 - Pneumatic-Operated ValvesEquipment Description Air Actuator/8" Butterfly Valve (NORM VAC RLF CTMT OTBD ISOL)Location: Bldg. CTMT Floor El. 185 Room, Area 1A509, CTMTManufacturer, Model, Etc. (optional but recommended) Valve: Henry Pratt Co., 1200; Actuator: Bettis Corp., 521C-SR80**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
N/A, in-line equipment

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 016

Equipment ID No. E61F007 Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Air Actuator/8" Butterfly Valve (NORM VAC RLF CTMT OTBD ISOL)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
This equipment is not a soft target.

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 items (pipe/supports, duct/supports, etc.) are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for routing cable to the actuator, and tubing routed to the actuator has sufficient flexibility.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak  Date: 10/4/2012

Tori Robinson  10/4/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 016

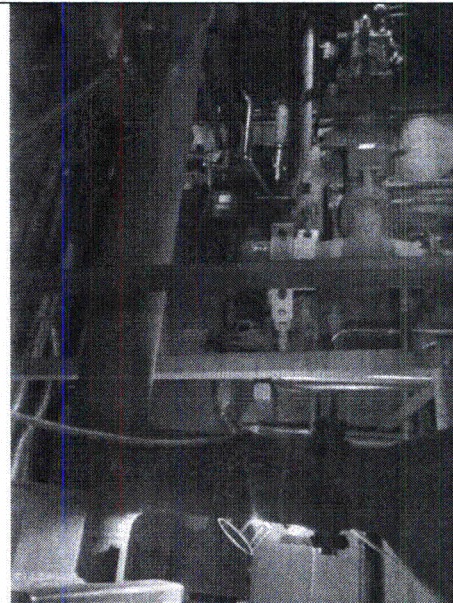
Equipment ID No. E61F007 Equip. Class¹ 7 - Pneumatic-Operated Valves

Equipment Description Air Actuator/8" Butterfly Valve (NORM VAC RLF CTMT OTBD ISOL)

Photographs



Note: *Valve and Actuator*



Note: *Valve and Actuator*

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 017**Equipment ID No. E61F010 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description Air Actuator/6" Butterfly ValveLocation: Bldg. CTMT Floor El. 161 Room, Area 1A445, CTMTManufacturer, Model, Etc. (optional but recommended) Valve: Henry Pratt Co., 1200; Actuator: Bettis Corp., 521C-SR80**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 017

Equipment ID No. E61F010 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/6" Butterfly Valve

Interaction Effects

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

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

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex and copper lines are attached to actuator with adequate clearance.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 9/28/2012

Fred Hopkins  9/28/2012

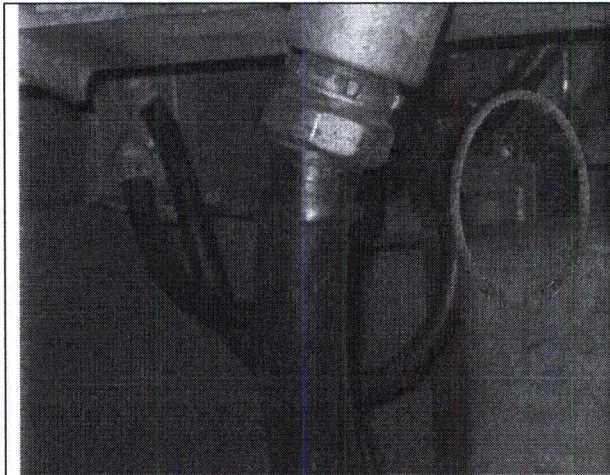
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 017

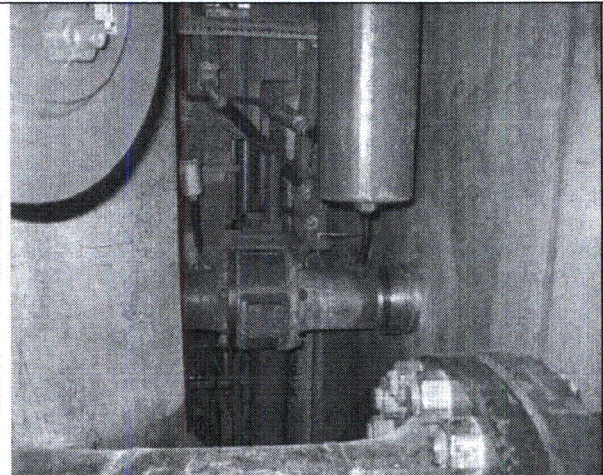
Equipment ID No. E61F010 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/6" Butterfly Valve

Photographs



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 018

Equipment ID No. G36F101 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valve

Equipment Description Air Actuator/4" Gate Valve (RWCU BKW RCV TK XFER TO RADWST)

Location: Bldg. AB Floor El. 119 Room, Area 1A204,08

Manufacturer, Model, Etc. (optional but recommended) POWELL, WILLIAM CO,1503W

Instructions for Completing Checklist

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

Anchorage

- 1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
- 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
- 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
- 4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
- 5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
- 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Valve is welded inline

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 018

Equipment ID No. G36F101 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valve

Equipment Description Air Actuator/4" Gate Valve (RWCU BKW RCV TK XFER TO RADWST)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
There is no equipment in the overhead other than a light that is not directly over the valve and the light is adequately supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible conduit is attached to valve with adequate clearance

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

Other Adverse Conditions

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

Comments

none

Evaluated by: Chase Wharton *Ch Wharton* Date: 10/9/2012

Fred Hopkins *Fred Hopkins* 10/9/2012

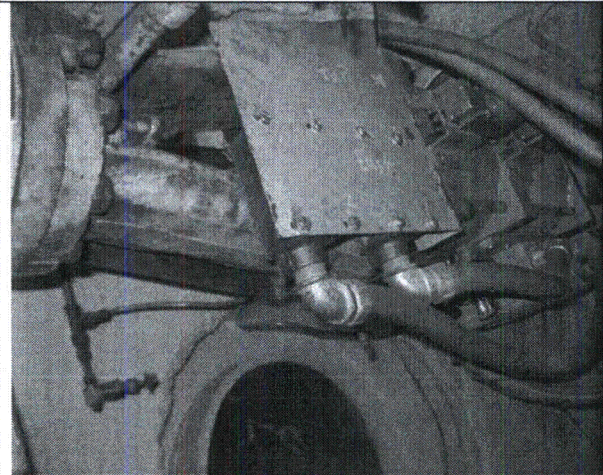
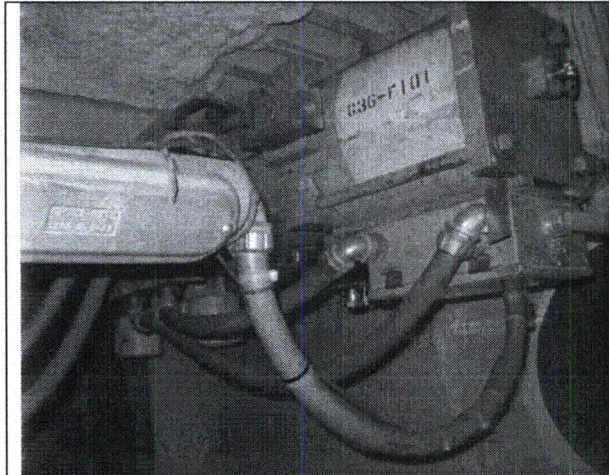
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 018

Equipment ID No. G36F101 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valve

Equipment Description Air Acruator/4" Gate Valve (RWCU BKW RCV TK XFER TO RADWST)

Photographs



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 019**Equipment ID No. M41F013 Equip. Class¹ 8 - Motor-Operated amd Solenoid-Operated ValvesEquipment Description Air Actuator/20" Butterfly ValveLocation: Bldg. CTMT Floor El. 161 Room, Area 1A445, CTMTManufacturer, Model, Etc. (optional but recommended) Valve: HENRY Pratt,C-2669; Actuator: Bettis Corp., T312-SR3**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 019

Equipment ID No. M41F013 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/20" Butterfly Valve

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Soft target have adequate clearance.

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 conduit & piping are adequately supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Hoses & Flex conduit are attached to actuator.

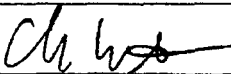
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 9/28/2012

Fred Hopkins  9/28/2012

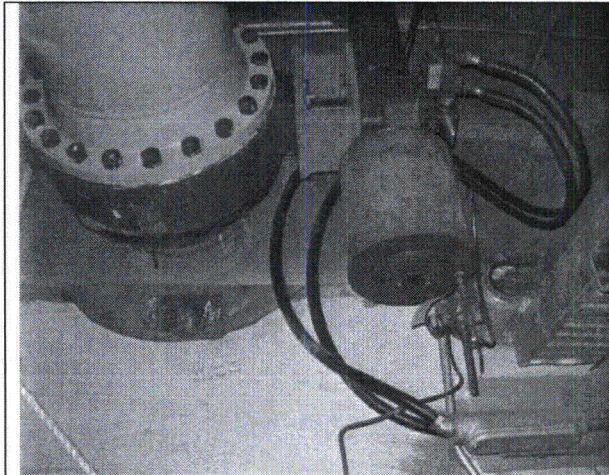
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 019

Equipment ID No. M41F013 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/20" Butterfly Valve

Photographs



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 020**Equipment ID No. M41F034 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description Air Actuator/20" Butterfly ValveLocation: Bldg. CTMT Floor El. 161 Room, Area 1A445, CTMTManufacturer, Model, Etc. (optional but recommended) Valve: HENRY Pratt, C-2669; Actuator: Bettis Corp., T312-SR3**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Inline valve with flange connection

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 020

Equipment ID No. M41F034 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/20" Butterfly Valve

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
No soft targets on this 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
Overhead piping has adequate support.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit is near copper tubing; but appear to have adequate clearance and does not create an adverse seismic condition

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 9/28/2012

Fred Hopkins  9/28/2012

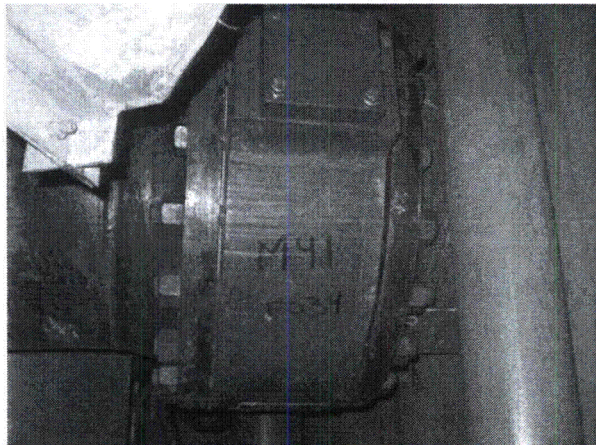
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 020

Equipment ID No. M41F034 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/20" Butterfly Valve

Photographs



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 021**Equipment ID No. M41F035 Equip. Class¹ 7 - Pneumatic-Operated ValvesEquipment Description Air Actuator/20" Butterfly Valve (CTMT CLG EXH to CTMT VENT)Location: Bldg. AB Floor El. 166 Room, Area 1A405, 08Manufacturer, Model, Etc. (optional but recommended) Henry Pratt Co., C-2669**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 021

Equipment ID No. M41F035 Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Air Actuator/20" Butterfly Valve (CTMT CLG EXH to CTMT VENT)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
This equipment is not a soft target.

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 items (mainly conduits) are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for cable routed to the actuator, and copper tubing routed to the actuator has adequate flexibility.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak *Kyong S. Pak* Date: 9/26/2012

Tori Robinson *Tori Robinson* 9/26/2012

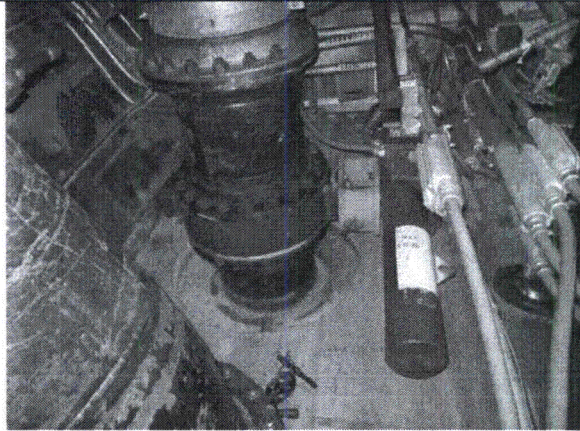
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 021

Equipment ID No. M41F035 Equip. Class¹ 7 - Pneumatic-Operated Valves

Equipment Description Air Actuator/20" Butterfly Valve (CTMT CLG EXH to CTMT VENT)

Photographs



Note: *Valve and Actuator*

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 022

Equipment ID No. P11F131 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/12" Butterfly Valve (REFUEL WTR XFER PMP SUCT FM SUPP POOL)

Location: Bldg. AB Floor El. 93 Room, Area 1A115.09

Manufacturer, Model, Etc. (optional but recommended) PRATT, HENRY CO.1100

Instructions for Completing Checklist

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

Anchorage

- 1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
- 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
- 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
- 4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
- 5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
- 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 022

Equipment ID No. P11F131 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/12" Butterfly Valve (REFUEL WTR XFER PMP SUCT FM SUPP POOL)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible conduit is attached to the valve with adequate clearance.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton *Chase Wharton* Date: 10/8/2012

Fred Hopkins *Fred Hopkins* 10/8/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 022

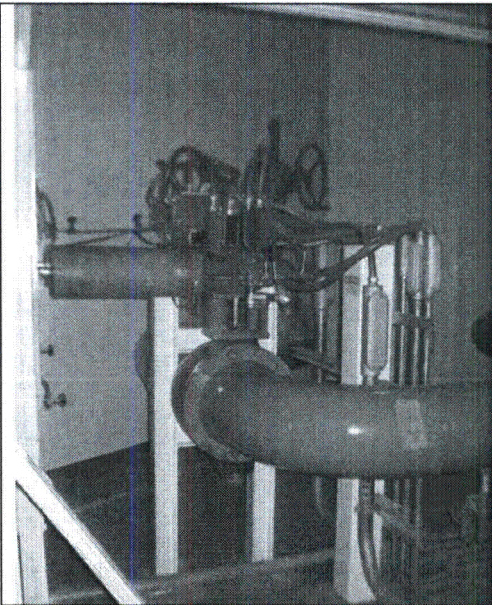
Equipment ID No. P11F131 Equip. Class' 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/12" Butterfly Valve (REFUEL WTR XFER PMP SUCT FM SUPP POOL)

Photographs



Note:



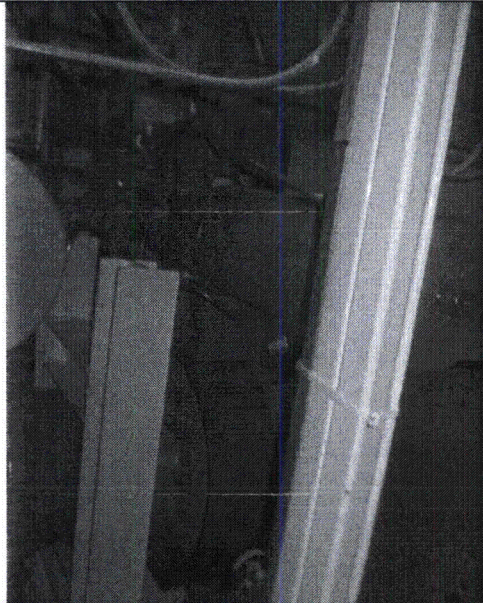
Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 022

Equipment ID No. P11F131 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Air Actuator/12" Butterfly Valve (REFUEL WTR XFER PMP SUCT FM SUPP POOL)

	
<p>Note:</p>	<p>Note:</p>

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 023**Equipment ID No. P41F194B Equip. Class: 7 - Pneumatic-Operated ValvesEquipment Description Safety Relief Valve (ESF SWGR RM CLR B004B Press. Relief Valve)Location: Bldg. AB Floor El. 166 Room, Area 1A407, 08Manufacturer, Model, Etc. (optional but recommended) Anderson Greenwood & CRO**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
N/A, in-line equipment

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 023

Equipment ID No. P41F194B Equip. Class: 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (ESF SWGR RM CLR B004B Press. Relief Valve)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
All equipments/structures nearby are rigidly supported.

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 items (pipe/pipe supports, cable tray/support) are rigidly supported.

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

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


Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak  Date: 9/27/2012

Tori Robinson  9/27/2012

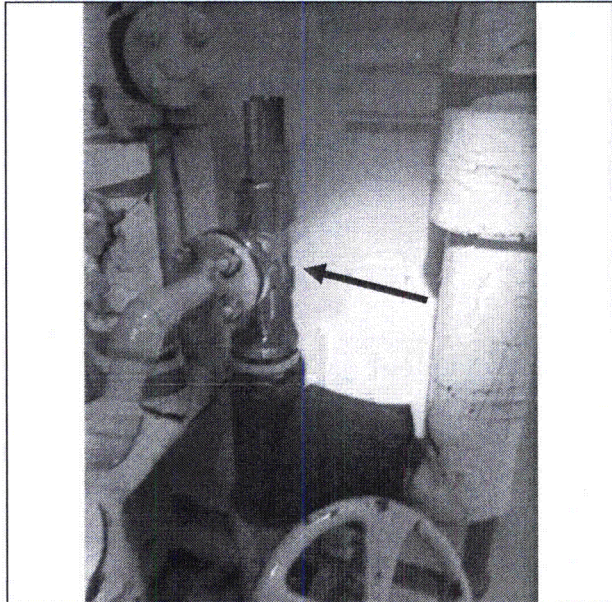
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 023

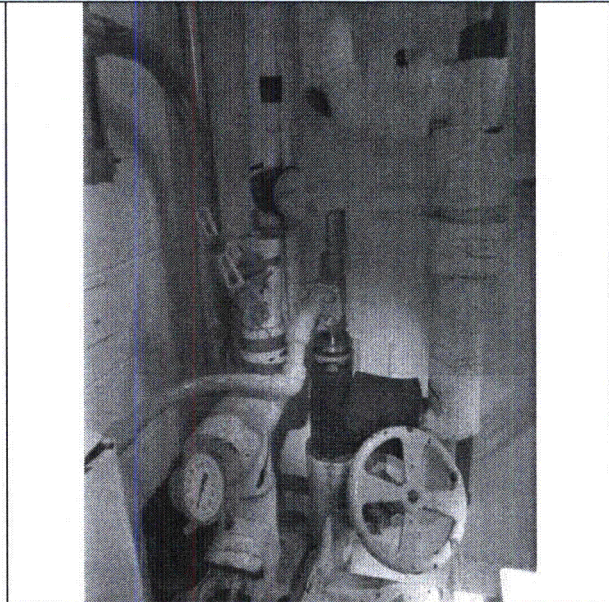
Equipment ID No. P41F194B Equip. Class¹ 7 - Pneumatic-Operated Valves

Equipment Description Safety Relief Valve (ESF SWGR RM CLR B004B Press. Relief Valve)

Photographs



Note: Safety relief valve



Note: Safety relief valve

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 024

Equipment ID No. E12F029A Equip. Class: 8 – Motor-Operated and Solenoid Operated Valve

Equipment Description 18" No Gate Valve & Gear Actuator (A RHR PMP DISCH)

Location: Bldg. AB Floor El. 93 Room, Area 1A102.07

Manufacturer, Model, Etc. (optional but recommended) POWELL, WILLIAM CO.3003WE

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 024

Equipment ID No. E12F029A Equip. Class: 8 - Motor-Operated and Solenoid Operated Valve

Equipment Description 18" No Gate Valve & Gear Actuator (A RHR PMP DISCH)

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

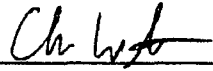
9. Do attached lines have adequate flexibility to avoid damage?
Flex conduit attached to actuator Y N U N/A


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

Other Adverse Conditions

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

Comments

Evaluated by: Chase Wharton  Date: 10/8/2012

Fred Hopkins  10/8/2012

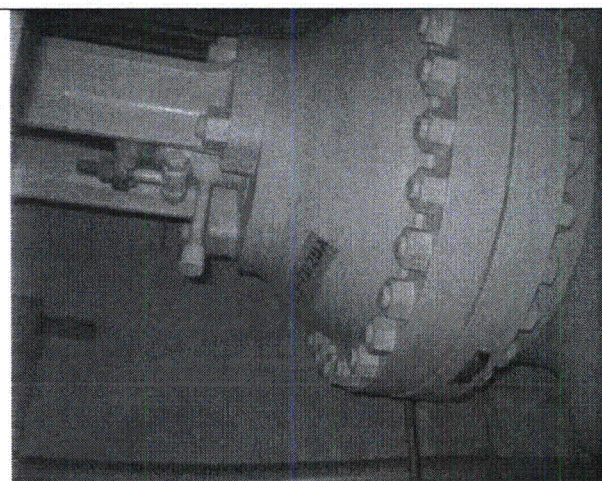
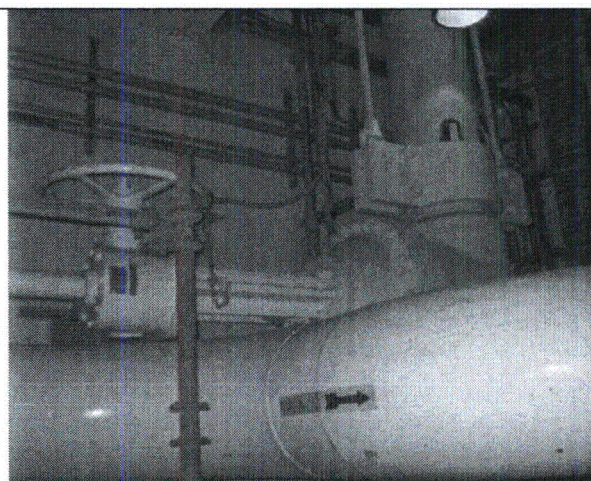
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 024

Equipment ID No. E12F029A Equip. Class¹ 8 – Motor-Operated and Solenoid Operated Valve

Equipment Description 18" No Gate Valve & Gear Actuator (A RHR PMP DISCH)

Photographs

	
<p>Note:</p>	<p>Note:</p>

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 025

Equipment ID No. B21F065A Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 24" Feedwater Inlet A (FW INL Shutoff VLV)

Location: Bldg. AB Floor El. 139 Room, Area 1A305, 08

Manufacturer, Model, Etc. (optional but recommended) Valve: Powell, 19023WE; Actuator: Limitorque, SMB-4-150

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 025

Equipment ID No. B21F065A Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 24" Feedwater Inlet A (FW INL Shutoff VLV)

Interaction Effects

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

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

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

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

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

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 025

Equipment ID No. B21F065A Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 24" Feedwater Inlet A (FW INL Shutoff VLV)

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 025

Equipment ID No. B21F065A Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 24" Feedwater Inlet A (FW INL Shutoff VLV)

Note:	Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 026**Equipment ID No. B33F125 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description .75" Reactor RCIC Post (JP Post-ACC SMPL CTMT OTBD ISOL)Location: Bldg. AB Floor El. 119 Room, Area 1A220, 09Manufacturer, Model, Etc. (optional but recommended) Yarway Corp. 5515B-F316MS**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
*Actuator is supported to the floor steel.
 No bent, broken, missing or loose hardware found.*

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Minor surface oxidation on actuator support at weld between tube steel and plate. The corrosion was visually inspected and determined to be limited in extent and depth. Therefore, it is judged to have negligible affects on the ability of the affected components.

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 026

Equipment ID No. B33F125 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description .75" Reactor RCIC Post (JP Post-ACC SMPL CTMT OTBD ISOL)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
All equipments/structures nearby are rigidly supported.

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 items (tubing/pipe/supports, duct/supports) are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for routing cable to the actuator, therefore attached line has adequate flexibility.

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

Other Adverse Conditions

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

Comments

Doug Jones (Peer Review Team Leader) came and observed the walkdown of this equipment.

Evaluated by: Kyong S. (Jason) Pak  Date: 9/28/2012

Tori Robinson  9/28/2012

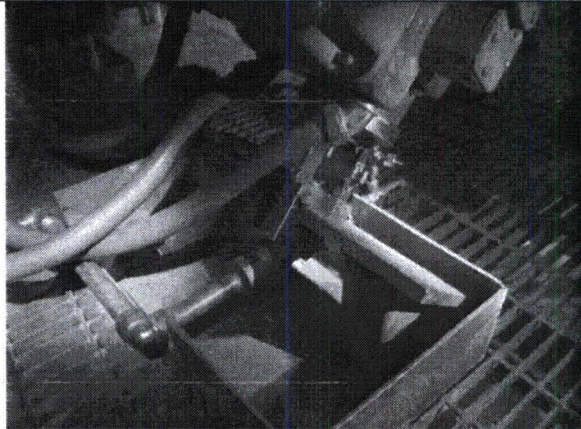
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 026

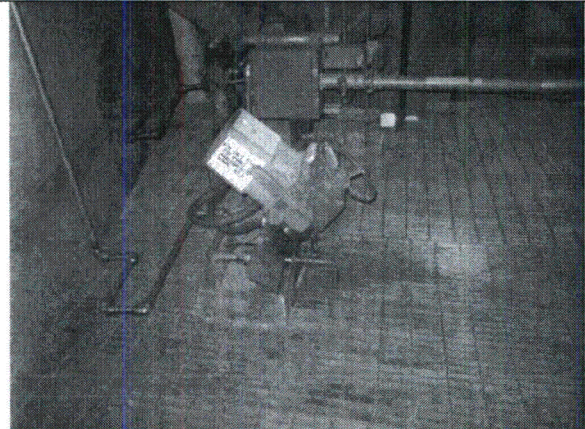
Equipment ID No. B33F125 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description .75" Reactor RCIC Post (JP Post-ACC SMPL CTMT OTBD ISOL)

Photographs



Note: Actuator support



Note: General view of the area



Note: Actuator support



Note: Valve B33-F125

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 027**Equipment ID No. B21F067C Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description 1.5" Main Steam C (OTBD MSL C DR VLV)Location: Bldg. AB Floor El. 139 Room, Area 1A305, 07Manufacturer, Model, Etc. (optional but recommended) Valve: Yarway Corp., 5515B-SA105M; Actuator: Limitorque, SMB-00-10**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 027

Equipment ID No. B21F067C Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam C (OTBD MSL C DR VLV)

Interaction Effects

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

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

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

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

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

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 027

Equipment ID No. B21F067C Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam C (OTBD MSL C DR VLV)

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 027

Equipment ID No. B21F067C Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam C (OTBD MSL C DR VLV)

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 028

Equipment ID No. B33F129 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Isolation Valve (REAC RECIRC SYS SMPL PNL ISOL VLV)

Location: Bldg. CTMT Floor El. 185 Room, Area 1A514, CTMT

Manufacturer, Model, Etc. (optional but recommended) Valve: Yarway Corp., 5515B-SA105MS; Motor: Limatorque Corp. SMB-000-2

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
Valve/Actuator is supported to the concrete floor using (4) anchor bolts. No bent, broken, missing or loose hardware found.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Minor surface corrosion found on pipe support beam. The corrosion was visually inspected and determined to be limited in extent and depth. Therefore, it is judged to have negligible affects on the ability of the affected components. See photos.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Floor is covered with epoxy coating; no visual indication of crack in concrete.

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 028

Equipment ID No. B33F129 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Isolation Valve (REAC RECIRC SYS SMPL PNL ISOL VLV)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
All equipments/structures nearby are rigidly supported.

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 items (light fixture, pipe/pipe supports, HVAC duct) are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for routing cable to the actuator, therefore attached line has adequate flexibility.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak *Kyong S. Pak* Date: 10/4/2012

Tori Robinson *Tori Robinson* 10/4/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 028

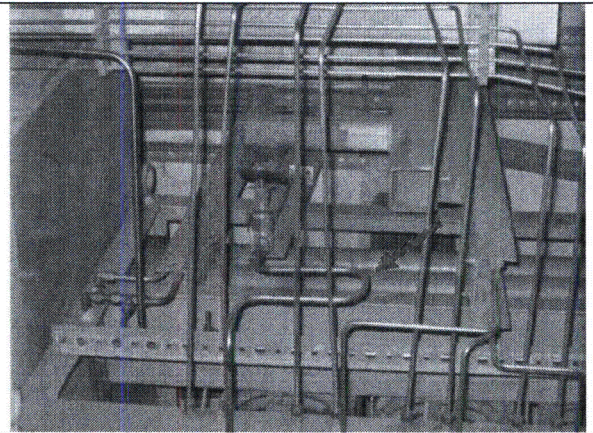
Equipment ID No. B33F129 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Isolation Valve (REAC RECIRC SYS SMPL PNL ISOL VLV)

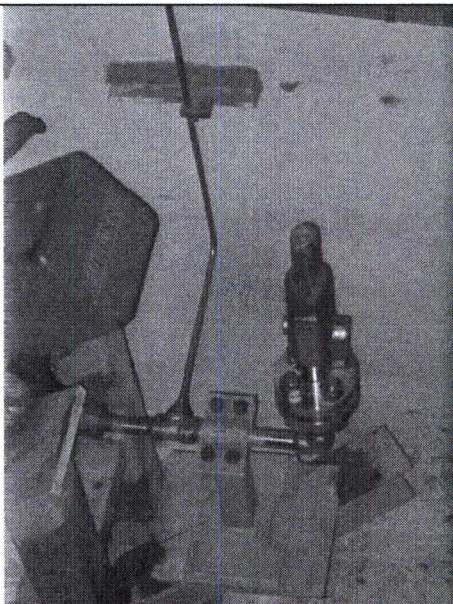
Photographs



Note: *Valve with Actuator*



Note: *Tubing from Reactor Sample Station*



Note: *Surface corrosion*



Note: *General view of valve area*

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 029

Equipment ID No. C11F110A Equip. Class¹ 8 - Motor-Operated a Solenoid-Operated Valves.

Equipment Description CRD Scram Solenoid Valve B/U

Location: Bldg. CTMT Floor El. 135 Room, Area 1A311, CTMT

Manufacturer, Model, Etc. (optional but recommended) Springer Coax, MK 253C116VVN11/2" TZB

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
The valve is inline with welded connections.

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 029

Equipment ID No. C11F110A Equip. Class: 8 - Motor-Operated a Solenoid-Operated Valves.

Equipment Description CRD Scram Solenoid Valve B/U

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
>2" away from all equipment. Solenoid is rigid mounted. No interaction will occur.

- 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 area above the component is occupied by conduit and grating. No signs of degradation or structural inadequacies were observed during visually examining of these components. Therefore, it is judged the overhead items are not likely to collapse.

- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible air line is attached to CRD Scram Solenoid Valve with adequate clearance and the copper lines are rigidly supported.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 9/27/2012

Fred Hopkins  9/27/2012

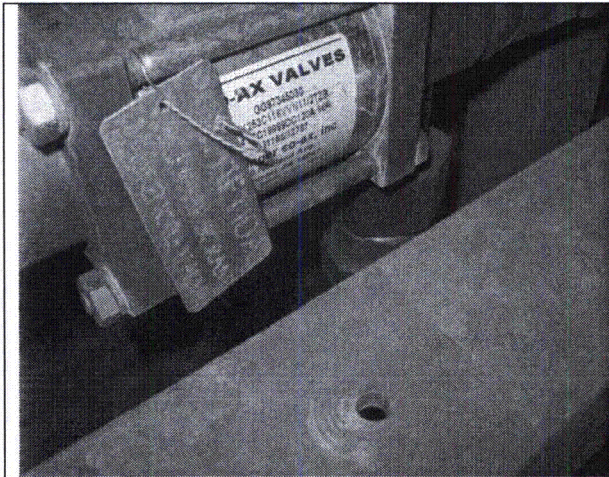
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Seismic Walkdown Checklist (SWC) SWEL1- 029

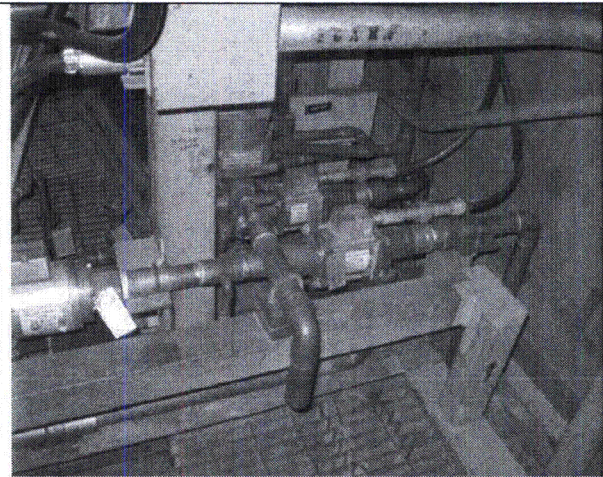
Equipment ID No. C11F110A Equip. Class¹ 8 - Motor-Operated a Solenoid-Operated Valves.

Equipment Description CRD Scram Solenoid Valve B/U

Photographs



Note:



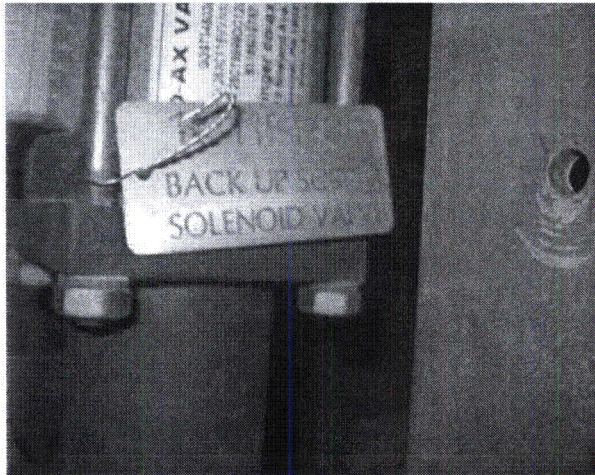
Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 029

Equipment ID No. C11F110A Equip. Class¹ 8 - Motor-Operated a Solenoid-Operated Valves.

Equipment Description CRD Scram Solenoid Valve B/U



Note:

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 030

Equipment ID No. E12F003A Equip. Class¹ 8 – Motor-Operated and Solenoid Operated Valves

Equipment Description 18" Globe Stop Valve & Motor Actuator (RHR HX A OUTL VLV)

Location: Bldg. AB Floor El. 93 Room, Area 1A102.07

Manufacturer, Model, Etc. (optional but recommended) POWELL, WILLIAM CO.3051WE

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 030

Equipment ID No. E12F003A Equip. Class: 8 - Motor-Operated and Solenoid Operated Valves

Equipment Description 18" Globe Stop Valve & Motor Actuator (RHR HX A OUTL VLV)

Interaction Effects

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

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

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

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

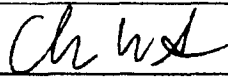
Other Adverse Conditions

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

Comments

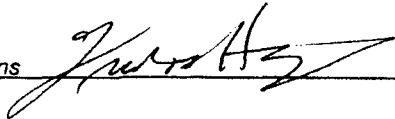
Valve not coated. Temporary scaffold <1" from valve EC8151, EC27998, WO#259937-04

Evaluated by: Chase Wharton



Date: 10/8/2012

Fred Hopkins



10/8/2012

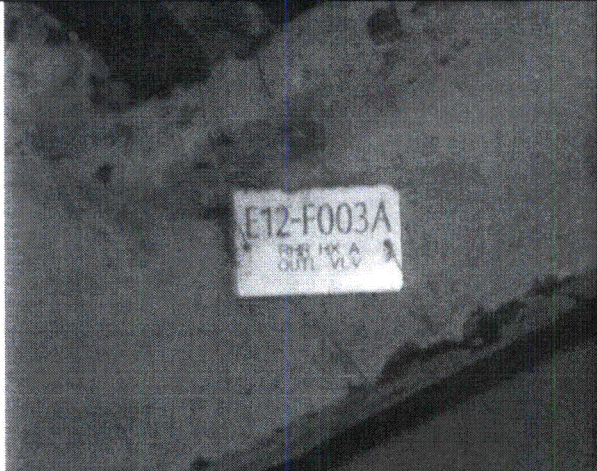

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 030

Equipment ID No. E12F003A Equip. Class: 8 – Motor-Operated and Solenoid Operated Valves

Equipment Description 18" Globe Stop Valve & Motor Actuator (RHR HX A OUTL VLV)

Photographs

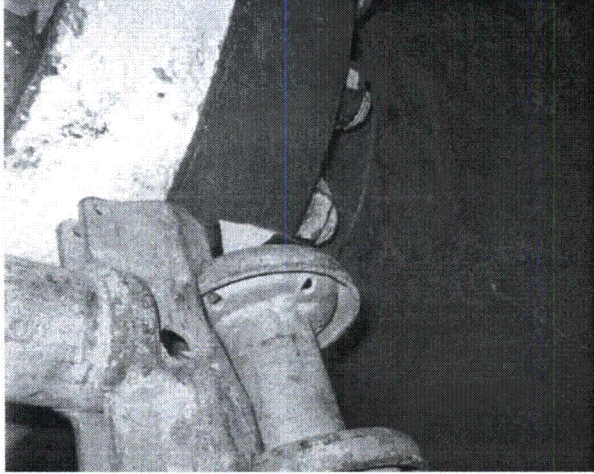
	
<p>Note:</p>	<p>Note:</p>

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 030

Equipment ID No. E12F003A Equip. Class¹ 8 – Motor-Operated and Solenoid Operated Valves

Equipment Description 18" Globe Stop Valve & Motor Actuator (RHR HX A OUTL VLV)



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 031**Equipment ID No. E12F004B Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description 24" Valve & Motor Actuator (RHR PMP B SUCT FM SUPP POOL)Location: Bldg. AB Floor El. 93 Room, Area 1A105, 08Manufacturer, Model, Etc. (optional but recommended) POWELL, WILLIAM CO .3023WE**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 031

Equipment ID No. E12F004B Equip. Class' 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 24" Valve & Motor Actuator (RHR PMP B SUCT FM SUPP POOL)

Interaction Effects

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

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

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit is attached to the actuator and the conduit has adequate clearance for movement.

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

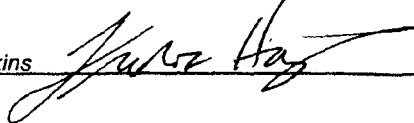
Other Adverse Conditions

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

Comments

Temporary scaffold in area. Water found on floor, runs down from overhead piping.

Evaluated by: Chase Wharton  Date: 10/4/2012

Fred Hopkins  10/4/2012


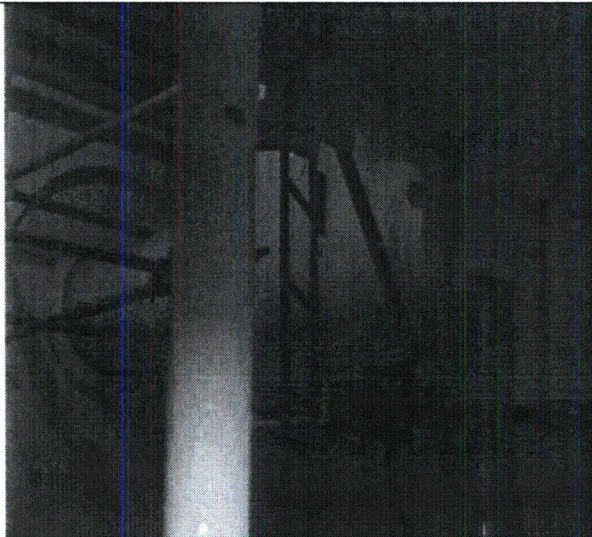
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 031

Equipment ID No. E12F004B Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 24" Valve & Motor Actuator (RHR PMP B SUCT FM SUPP POOL)

Photographs

	
<p>Note:</p>	<p>Note:</p>

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 032**Equipment ID No. E12F006B Equip. Class¹ 08 - Motor-Operated and Solenoid-Operated ValvesEquipment Description 18" Valve & Motor Actuator (RHR PMP B SUCT FM SHUTDN CLG)Location: Bldg. AB Floor El. 119 Room, Area 1A205, 08Manufacturer, Model, Etc. (optional but recommended) Valve: Powell, 3023WE; Actuator: Limitorque, SMB-2-80**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?
In line welded valve Y N U

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 032

Equipment ID No. E12F006B Equip. Class: 08 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 18" Valve & Motor Actuator (RHR PMP B SUCT FM SHUTDN CLG)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
Piping and conduit is adequately supported.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Actuator attached with flex conduit.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments

Minor Dripping from plug on actuator.

Evaluated by: Chase Wharton  Date: 10/4/2012

Fred Hopkins  10/4/2012

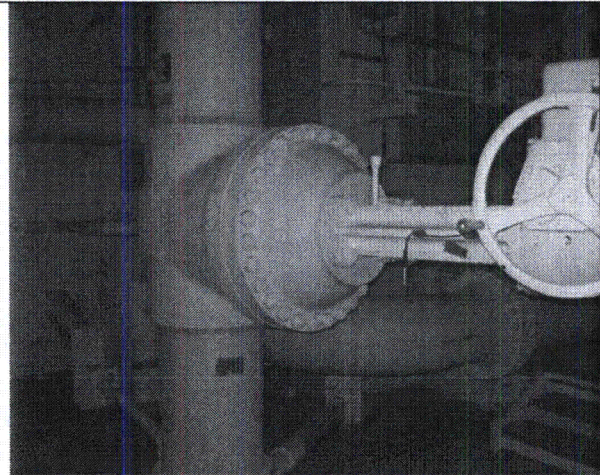
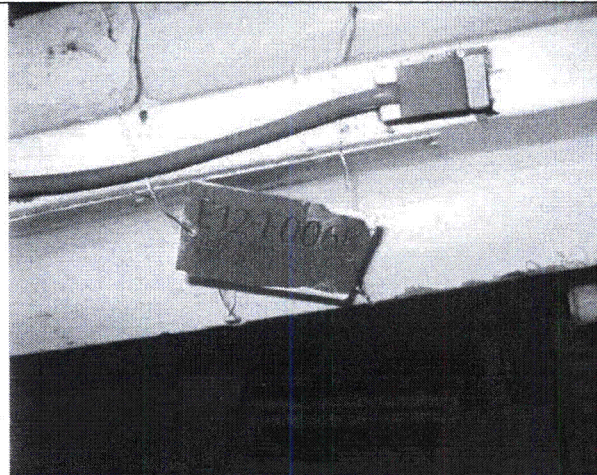
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 032

Equipment ID No. E12F006B Equip. Class¹ 08 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 18" Valve & Motor Actuator (RHR PMP B SUCT FM SHUTDN CLG)

Photographs



Note:

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 033

Equipment ID No. E12F024A Equip. Class¹ 8 – Motor-Operated and Solenoid-Operated Valves

Equipment Description 18" No Gate Valve & Motor Actuator (RHR A TEST RTN TO SUPP POOL)

Location: Bldg. AB Floor El. 93 Room, Area 1A103,07

Manufacturer, Model, Etc. (optional but recommended) POWELL, WILLIAM CO .3023WE

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
The valve is welded in line therefore item has no anchorage.

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 033

Equipment ID No. E12F024A Equip. Class' 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 18" No Gate Valve & Motor Actuator (RHR A TEST RTN TO SUPP POOL)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
All overhead items are rigidly supported

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit is attached to valve actuator and conduit is flexible to allow movement in a seismic event.

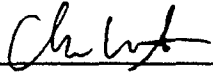
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 10/8/2012

Fred Hopkins  10/8/2012

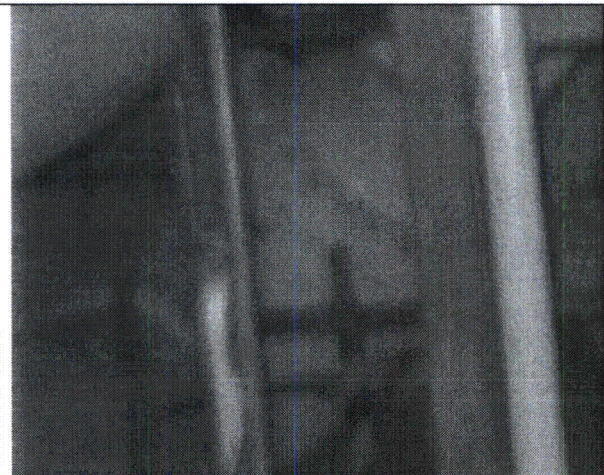
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 033

Equipment ID No. E12F024A Equip. Class: 8 – Motor-Operated and Solenoid-Operated Valves

Equipment Description 18" No Gate Valve & Motor Actuator (RHR A TEST RTN TO SUPP POOL)

Photographs

	
<p>Note:</p>	<p>Note:</p>

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 034

Equipment ID No. E12F027B Equip. Class¹ 08 - Motor-Operated and Solenoid-Operated Valve

Equipment Description 18" No Gate Valve & Motor Actuator (RHR B SYS Shutoff VLV)

Location: Bldg. AB Floor El. 119 Room, Area 1A205.08

Manufacturer, Model, Etc. (optional but recommended) Valve: Powell, 16023WE; Actuator: Limitorque, SMB-1-60

Instructions for Completing Checklist

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

Anchorage

- 1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
- 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
- 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
- 4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
- 5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
- 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Inline welded valve

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 034

Equipment ID No. E12F027B Equip. Class: 08 - Motor-Operated and Solenoid-Operated Valve

Equipment Description 18" No Gate Valve & Motor Actuator (RHR B SYS Shutoff VLV)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
Overhead piping and conduit is adequately supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible conduit is attached to actuator with adequate clearance

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

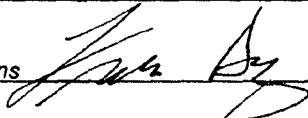
Other Adverse Conditions

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

Comments

1-3 drips per minute of oil was noticed leaking from the actuator on 1E12F027B (CR-GGN-2012-11328)

Evaluated by: Chase Wharton  Date: 10/4/2012

Fred Hopkins  10/4/2012

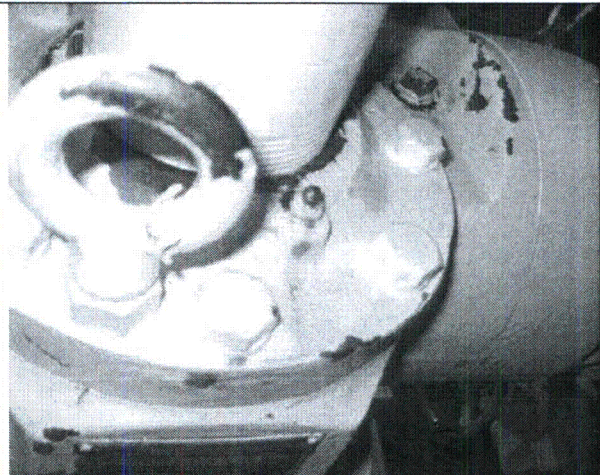
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 034

Equipment ID No. E12F027B Equip. Class: 08 - Motor-Operated and Solenoid-Operated Valve

Equipment Description 18" No Gate Valve & Motor Actuator (RHR B SYS Shutoff VLV)

Photographs



Note:

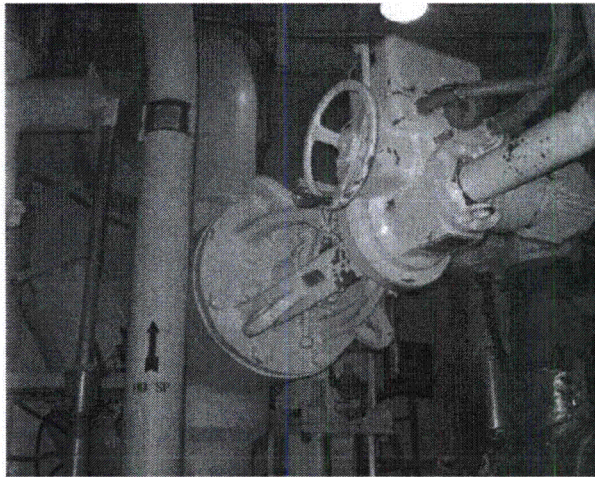
Note:

Status: Y N U

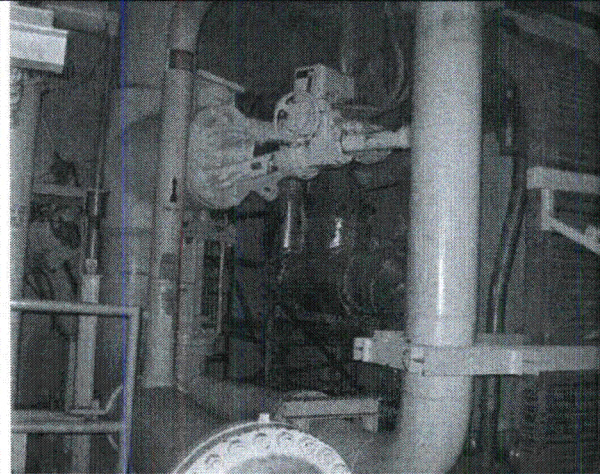
Seismic Walkdown Checklist (SWC) SWEL1- 034

Equipment ID No. E12F027B Equip. Class¹ 08 - Motor-Operated and Solenoid-Operated Valve

Equipment Description 18" No Gate Valve & Motor Actuator (RHR B SYS Shutoff VLV)



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 035

Equipment ID No. E12F064B Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 4" Valve/Motor Actuator (RHR B MIN FLO TO SUPP POOL)

Location: Bldg. AB Floor El. 93 Room, Area 1A105.08

Manufacturer, Model, Etc. (optional but recommended) POWELL, WILLIAM CO,3023WE

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
The 4" valve is adequately supported in line. The 4" valve is welded in line.

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 035

Equipment ID No. E12F064B Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 4" Valve/Motor Actuator (RHR B MIN FLO TO SUPP POOL)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
Overhead grating is adequately supported.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit is attached to the actuator and the conduit has adequate clearance for movement.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 10/4/2012

Fred Hopkins  10/4/2012

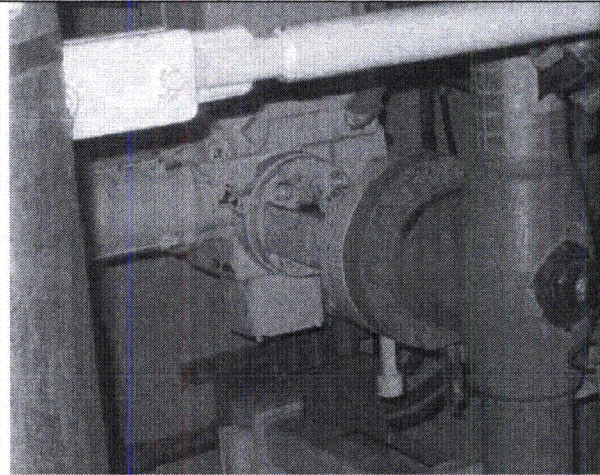
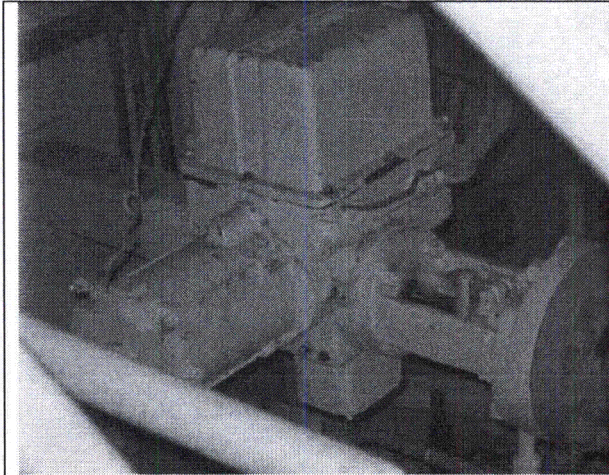
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 035

Equipment ID No. E12F064B Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 4" Valve/Motor Actuator (RHR B MIN FLO TO SUPP POOL)

Photographs



Note:

Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 036**Equipment ID No. E22F004 Equip. Class¹ 08 - Motor-Operated and Solenoid-Operated ValvesEquipment Description 12" HPCS Pump Discharge (HPCS INJ Shutoff VLV)Location: Bldg. AB Floor El. 119 Room, Area 1A205.08Manufacturer, Model, Etc. (optional but recommended) Valve: Anchor/Darling, 22A3131; Actuator: Limitorque, SB-3-100**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Welded Inline Valve

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 036

Equipment ID No. E22F004 Equip. Class: 08 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 12" HPCS Pump Discharge (HPCS INJ Shutoff VLV)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
Piping and conduit is adequately supported.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible conduit is attached to actuator with adequate clearance
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments

Thin insulation blanked around valve. By visual inspection no valve flanges were present. Valve is welded in line as confirmed by ISO drawings.

Evaluated by: Chase Wharton  Date: 10/4/2012

Fred Hopkins  10/4/2012

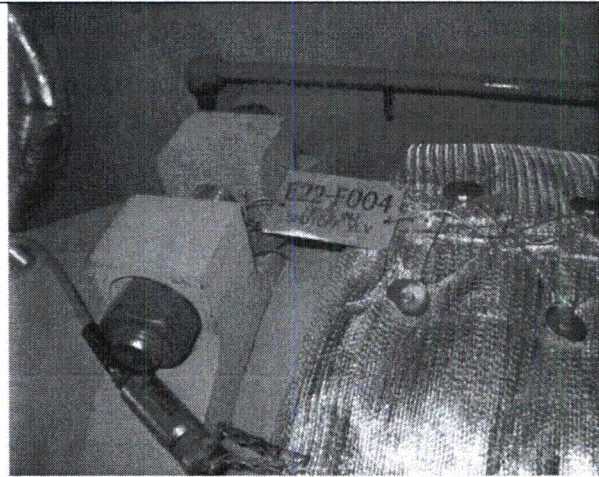
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 036

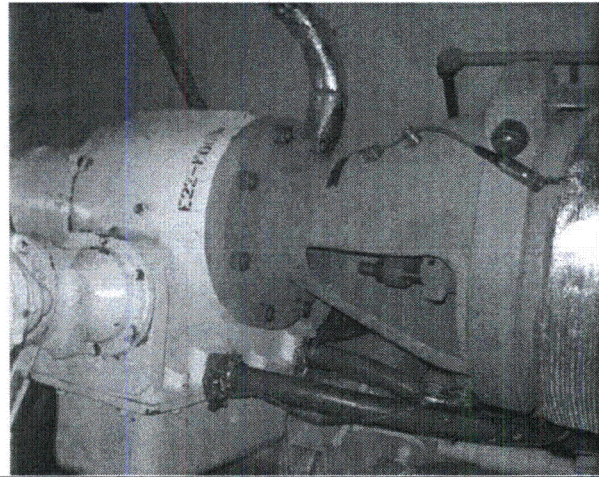
Equipment ID No. E22F004 Equip. Class¹ 08 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 12" HPCS Pump Discharge (HPCS INJ Shutoff VLV)

Photographs



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 037

Equipment ID No. E32F001A Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam A (Inboard valves Test)

Location: Bldg. AB Floor El. 139 Room, Area 1A305, 08

Manufacturer, Model, Etc. (optional but recommended) Valve: Yarway Corp., 5515B-SA105M; Actuator: Limitorque, SMB-00-10

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 037

Equipment ID No. E32F001A Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam A (Inboard valves Test)

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 037

Equipment ID No. E32F001A Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam A (Inboard valves Test)

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 037

Equipment ID No. E32F001A Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam A (Inboard valves Test)

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 038

Equipment ID No. E32F001N Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam D (Inboard valves Test)

Location: Bldg. AB Floor El. 139 Room, Area 1A305, 08

Manufacturer, Model, Etc. (optional but recommended) Valve: Yarway Corp., 5515B-SA105M; Actuator: Limitorque, SMB-00-10

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 038

Equipment ID No. E32F001N Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam D (Inboard valves Test)

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 038

Equipment ID No. E32F001N Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam D (Inboard valves Test)

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 038

Equipment ID No. E32F001N Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description 1.5" Main Steam D (Inboard valves Test)

Note:	Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 039**Equipment ID No. E51F046 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description Motor Actuator / 2" Stop Valve (RCIC WTR TO TURB LUBE OIL CLR)Location: Bldg. AB Floor El. 93 Room, Area 1A104.07Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Sweat blanket over inline valve, welded inline pipe by visual inspection (no evidence of bolted flange), and verified by ISO drawings.

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 039

Equipment ID No. E51F046 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator / 2" Stop Valve (RCIC WTR TO TURB LUBE OIL CLR)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Valve actuators have adequate clearance.

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
Over head piping and conduit is adequately supported

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

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton



Date: 10/4/2012

Fred Hopkins



10/4/2012


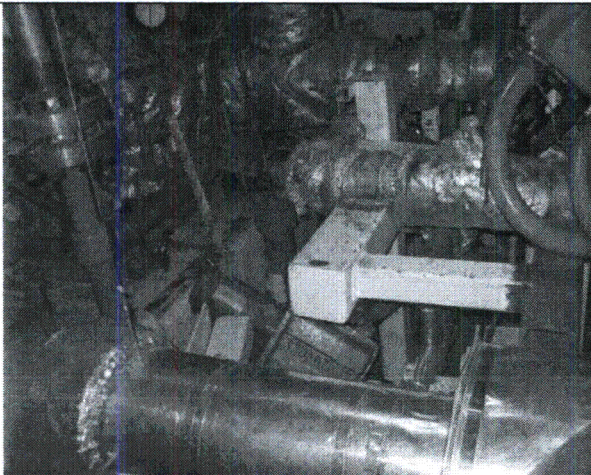
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 039

Equipment ID No. E51F046 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Vavles

Equipment Description Motor Actuator / 2" Stop Valve (RCIC WTR TO TURB LUBE OIL CLR)

Photographs

	
<p>Note:</p>	<p>Note:</p>

Status: Y N U

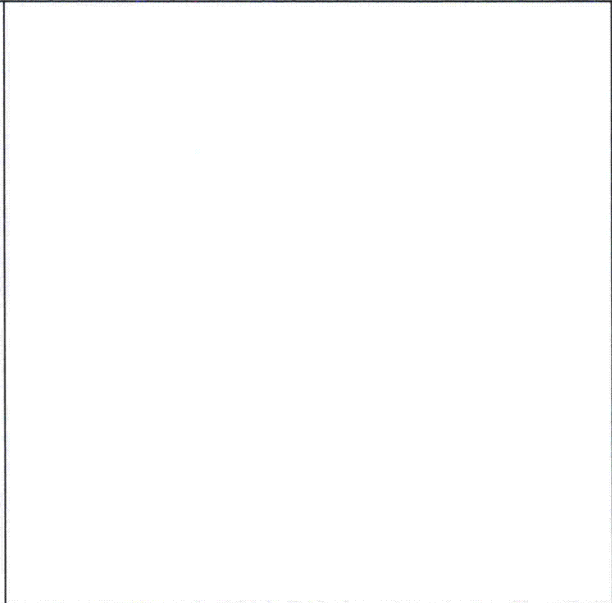
Seismic Walkdown Checklist (SWC) SWEL1- 039

Equipment ID No. E51F046 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator / 2" Stop Valve (RCIC WTR TO TURB LUBE OIL CLR)



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 040

Equipment ID No. G41F044 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator/8" Gate Valve (CTMT FP DR CTMT INBD ISOL)

Location: Bldg. CTMT Floor El. 185 Room, Area 1A509, CTMT

Manufacturer, Model, Etc. (optional but recommended) Valve: Powell; Actuator: Limitorque, SMB-000-5

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 040

Equipment ID No. G41F044 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator/8" Gate Valve (CTMT FP DR CTMT INBD ISOL)

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
This equipment is not a soft target.

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 items (duct/support) are rigidly supported.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit has been used for routing cable to the actuator, therefore attached line has adequate flexibility.

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

Other Adverse Conditions

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

Comments

None

Evaluated by: Kyong S. (Jason) Pak  Date: 10/4/2012

Tori Robinson  10/4/2012

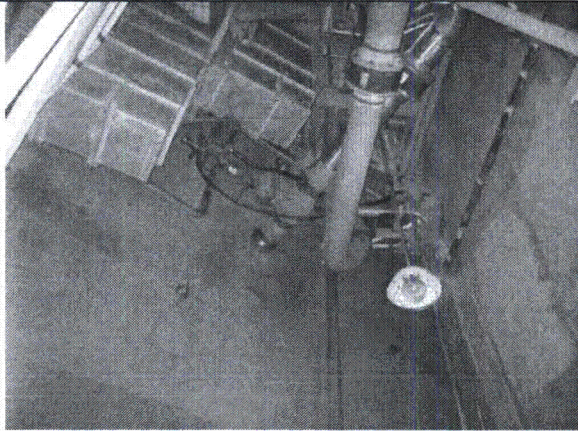
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 040

Equipment ID No. G41F044 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator/8" Gate Valve (CTMT FP DR CTMT INBD ISOL)

Photographs



Note: *Valve and Actuator*



Note: *Valve and Actuator*

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 041**Equipment ID No. P41F011 Equip. Class: 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description Motor Actuator/10" Butterfly Valve (SSW Loop C RTN to CLG TWR A (Loop C))Location: Bldg. SSW Floor El. 133 Room, Area 1M112, SSWManufacturer, Model, Etc. (optional but recommended) Valve: Henry Pratt Company, C-3442; Limitorque Corp, SMB-000-2/H1BC**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
inline flanged connection valve

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 041

Equipment ID No. P41F011 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator/10" Butterfly Valve (SSW Loop C RTN to CLG TWR A (Loop C))

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
There is no lighting directly over the valve. All lighting is anchored.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit is connected to valve actuator with adequate clearance.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
There is no near by equipment to interact with.

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

None

Evaluated by: Chase Wharton  Date: 9/24/2012

Fred Hopkins  9/24/2012

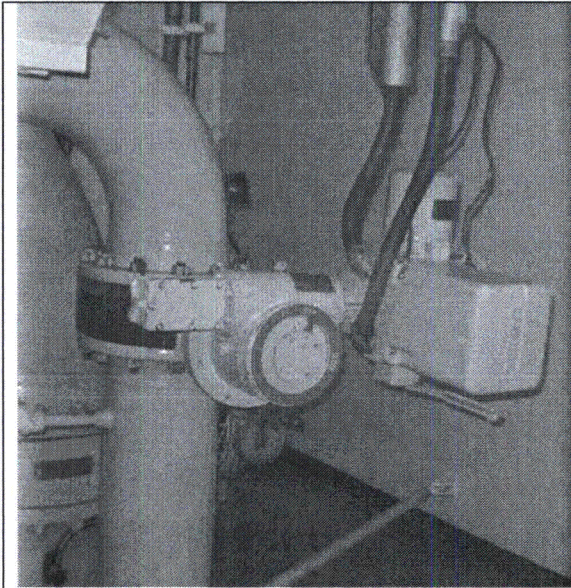
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 041

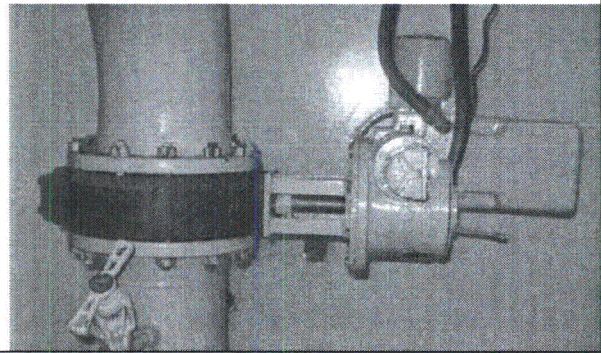
Equipment ID No. P41F011 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description Motor Actuator/10" Butterfly Valve (SSW Loop C RTN to CLG TWR A (Loop C))

Photographs



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. E12F041B Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description LPCI B Testable Check Valve

Location: Bldg. CTMT Floor El. 161 Room, Area 1A112, CTMT

Manufacturer, Model, Etc. (optional but recommended) Atwood & Morrill

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. E12F041B Equip. Class: 8 - Motor-Operated and Solenoid-Operated Vavles

Equipment Description LPCI B Testable Check Valve

Interaction Effects

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

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

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

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

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

Evaluated by: _____ Date: _____

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. E12F041B Equip. Class: 8 - Motor-Operated and Solenoid-Operated Vavles

Equipment Description LPCI B Testable Check Valve

Photographs

Note:	Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 042

Equipment ID No. E12F041B Equip. Class: 8 - Motor-Operated and Solenoid-Operated Vavles

Equipment Description LPCI B Testable Check Valve

Note:	Note:

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1- 043**Equipment ID No. P44F011 Equip. Class: 8 - Motor-Operated and Solenoid-Operated ValvesEquipment Description CCW HEAT EXCHANGER OUTLET HEADERLocation: Bldg. AB Floor El. 93 Room, Area 1A120.09Manufacturer, Model, Etc. (optional but recommended) PRATT, HENRY CO**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

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

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

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 043

Equipment ID No. P44F011 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CCW HEAT EXCHANGER OUTLET HEADER

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Item has no 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
The conduit in the overhead is rigidly supported, therefore does not create any adverse seismic condition.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible conduit is attached to valve with adequate clearance.

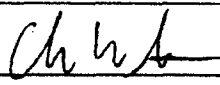
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

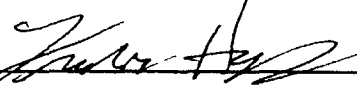
Other Adverse Conditions

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

Comments

None

Evaluated by: Chase Wharton  Date: 9/27/2012

Fred Hopkins  9/27/2012

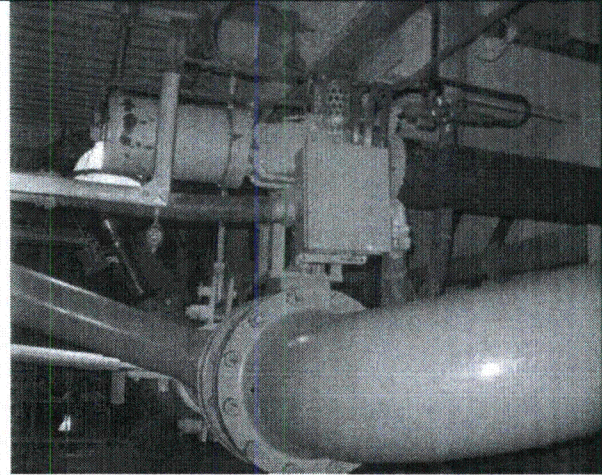
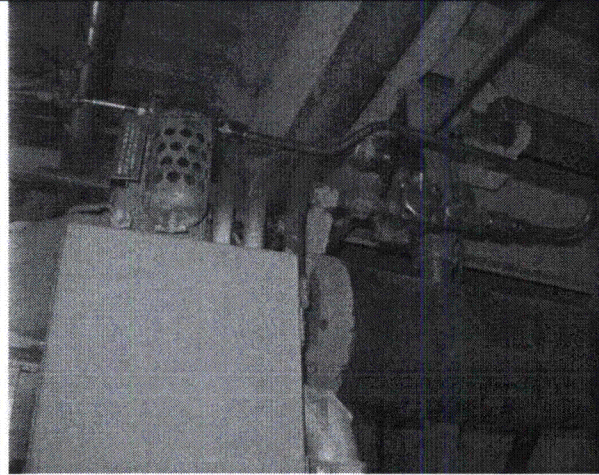
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 043

Equipment ID No. P44F011 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CCW HEAT EXCHANGER OUTLET HEADER

Photographs



Note:

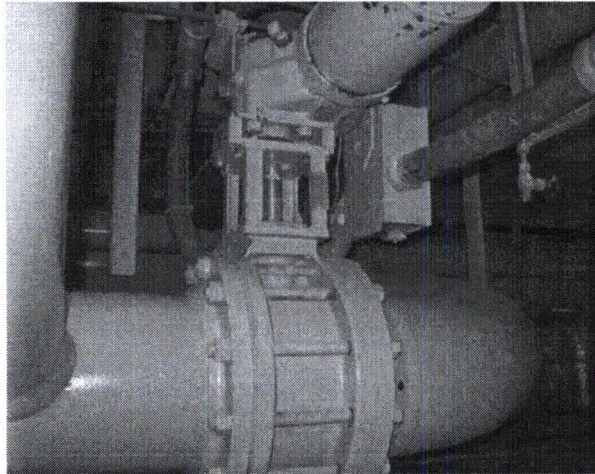
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Status: Y N U

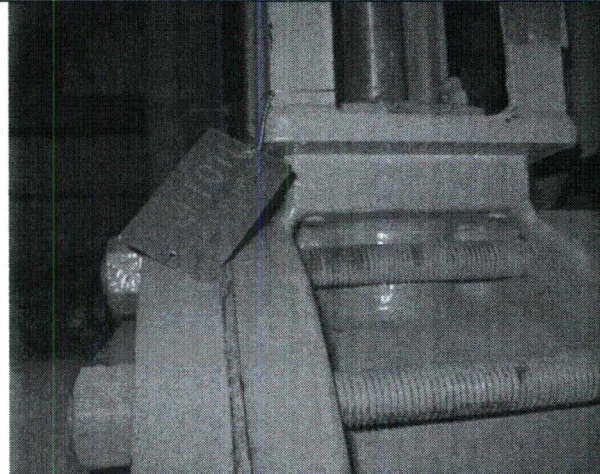
Seismic Walkdown Checklist (SWC) SWEL1- 043

Equipment ID No. P44F011 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CCW HEAT EXCHANGER OUTLET HEADER



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 044

Equipment ID No. P44F500 Equip. Class: 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CC WTR HXS OUT HDR VALVE F011 SOLENOID

Location: Bldg. AB Floor El. 93 Room, Area 1A120,09

Manufacturer, Model, Etc. (optional but recommended) ASCO - AUTOMATIC SWITCH C.EFHB8316G14

Instructions for Completing Checklist

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

Anchorage

- 1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
- 2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
- 3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
- 4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
- 5. Is the anchorage configuration consistent with plant documentation? (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.) Y N U N/A
- 6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

¹ Enter the equipment class name from EPRI 1025286 Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 044

Equipment ID No. P44F500 Equip. Class' 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CC WTR HXS OUT HDR VALVE F011 SOLENOID

Interaction Effects

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

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 conduit in the overhead is rigidly supported, therefore does not create any adverse seismic condition.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flexible conduit and copper piping is attached to valve with adequate clearance.

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

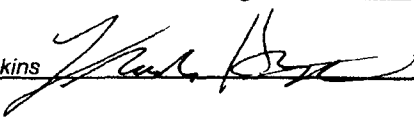
Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
No identification tag.CR-GGN-2012-11124

Comments

None

Evaluated by: Chase Wharton  Date: 9/27/2012

Fred Hopkins  9/27/2012

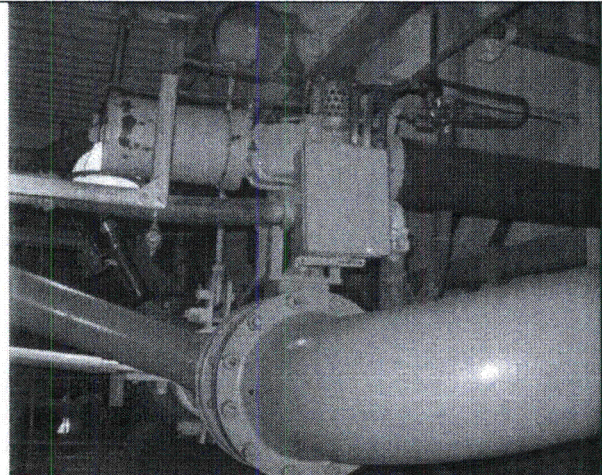
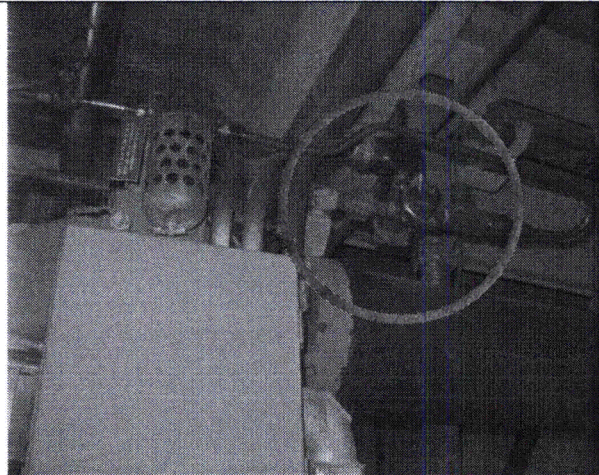
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1- 044

Equipment ID No. P44F500 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CC WTR HXS OUT HDR VALVE F011 SOLENOID

Photographs



Note:

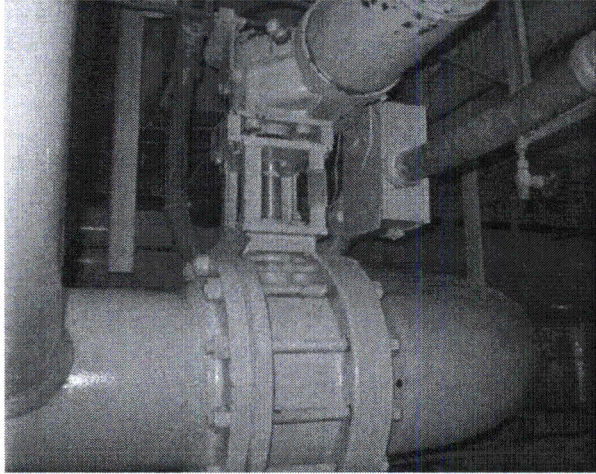
Note:

Status: Y N U

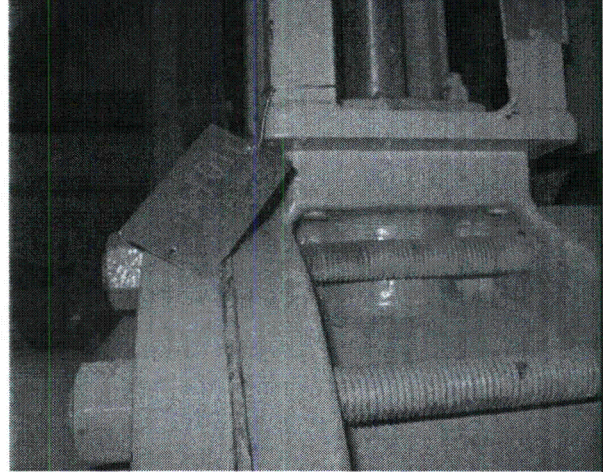
Seismic Walkdown Checklist (SWC) SWEL1- 044

Equipment ID No. P44F500 Equip. Class¹ 8 - Motor-Operated and Solenoid-Operated Valves

Equipment Description CC WTR HXS OUT HDR VALVE F011 SOLENOID



Note:



Note: