

ENCLOSURE TO NL-12-167

INDIAN POINT UNIT NO. 2
SEISMIC WALKDOWN REPORT

ENTERGY NUCLEAR OPERATIONS, INC.
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2
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for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic**

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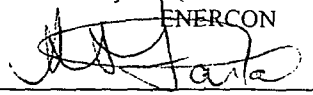
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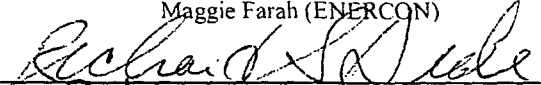
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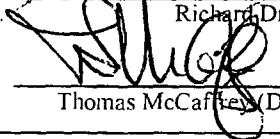
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Indian Point Energy Center Unit 2 Seismic Walkdown Report for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic

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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 walkdown inspections of the plant to gather and report information 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 Indian Point Energy Center, Unit 2 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. To this end, Entergy has prepared Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walk-down Procedure EN-DC-168 to govern the performance of the seismic walkdowns and preparation of the seismic report.

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 under the guidance of Entergy procedure EN-DC-168, and provide the information necessary for responding to Enclosure 3 to the 50.54(f) Letter.

2.0 SEISMIC LICENSING BASIS SUMMARY

Indian Point Energy Center, Unit 2 is a pressurized water reactor (PWR) located in Buchanan, New York. The Nuclear Steam Supply System (NSSS) was originally designed by Westinghouse Electric Corporation. The Indian Point Energy Center consists of two similar units, Units 2 and 3, and Unit 1 which is decommissioned. Unit 2 began commercial operation in September of 1973, and is currently rated at 1078 MW electric output from the turbine-generator [Ref. 3]. This section summarizes the seismic licensing basis of structures, systems and components (SSCs) at Indian Point Energy Center Unit 2 which bound the context of the NTTF 2.3 Seismic Walkdown program.

2.1 SAFE SHUTDOWN EARTHQUAKE (SSE)

The safe shutdown earthquake for the Indian Point Energy Center Unit 2 site conforms to the average of response spectra developed by Housner and is anchored at 0.15g peak horizontal ground acceleration and 0.10g peak vertical ground acceleration [Ref. 3].

2.2 DESIGN CODES, STANDARDS AND METHODS

Seismic Class I is defined as those structures and components including instruments and controls whose failure might cause or increase the severity of a loss-of-coolant accident or result in an uncontrolled release of radioactivity causing more than 10 rem to the thyroid or 10 rem whole body to the average adult beyond the nearest site boundary. Also included are those structures and components vital to safe shutdown and isolation of the reactor.

The criteria for functional adequacy of structures, equipment, piping, instrumentation, and controls follow:

No loss of function implies that rotating equipment will not freeze, pressure vessels will not rupture, supports will not collapse under the load, systems required to be leak-tight will remain leak-tight, and components required to respond actively (such as valves and relays) will respond actively. The criteria for functional adequacy of the structures state that stresses will not exceed yield when subjected to 0.15g horizontal ground acceleration. The manner in which these criteria have been met is by limiting stresses in seismic Class I structures to meet the above criteria. For all seismic Class I piping and their supports, the criteria for functional adequacy and the manner in which the criteria are met are the following: with a ground acceleration of 0.15g horizontal, the spectral acceleration corresponding to the maximum point on the 0.5-percent critical damping response curve was used to calculate an equivalent static force imparted to the pipe at its support points. This resulted in a seismic design load approximately equal to 0.6W horizontally and 0.4W vertically taken simultaneously where W is the weight of the pipe including static forces. The sum of the resulting additional stress plus the normal stresses was limited to 1.2 times the B31.1 code

allowable. The stresses in the pipe supports and hangers were likewise limited to 1.2 times the B31.1 code allowable. Since all the buildings containing seismic Class I piping are essentially rigid structures, no amplification is expected.

For seismic Class I equipment and tanks the same method was used to arrive at an equivalent static force. In each case, the total of seismic and normal stresses was limited to the applicable code allowable. The refueling water storage tank and condensate storage tank were designed in accordance with the stress limitations of American Water Works Association Standard D100. All components of the reactor coolant system and associated systems are designed to the standards of the applicable ASME code or USAS code. The loading combinations, which are employed in the design of seismic Class I components of these systems, i.e., vessels, piping, supports, vessel internals and other applicable components, are given in FSAR Table 1.11-2 of the UFSAR. Table 1.11-2 also indicates the stress limits, which are used in the design of the listed equipment for the various loading combinations. The original design criteria given above and in Table 1.11-2 have been modified in certain instances in accordance with NRC guidance given in FSAR References 3 and 4. Generic Letter 87-11 allows for the elimination of pipe whip restraints and jet impingement shields, which were installed to mitigate the effects of arbitrary intermediate pipe ruptures, provided certain criteria are met.

These design criteria have also been modified in certain instances by the application of "leak before break" technology. To be able to perform their function, i.e., allow core shutdown and cooling the reactor vessel internals must satisfy deformation limits, which are more restrictive than the stress limits

The design of seismic Class I structures and components utilizes the "response spectrum" approach in the analysis of the dynamic loads imparted by the earthquake. The analysis is based upon the response spectra shown on Figures 1.11-1 and 1.11-2 of the UFSAR. The following method of analysis is applied to seismic Class I structures and components including instrumentation:

The natural period of vibration of the structure or component is determined.

The response acceleration of the component to the seismic motion is taken from the response spectrum curve at the appropriate period.

Stresses and deflections resulting from the combined influence of normal loads and the seismic load due to the Design Earthquake (0.05g acting in the vertical and 0.10g acting in the horizontal planes simultaneously) are calculated and checked against the limits imposed by the design standard.

Stresses and deflections resulting from the combined influence of normal loads and the seismic loads due to the maximum potential earthquake (0.10g acting in the vertical and 0.15g acting in the horizontal planes simultaneously) are calculated and checked to verify that deflections do not cause loss of function and that stresses do not produce rupture.

Where the vibrator system is of a highly complex geometric shape, such as piping systems, the maximum response from the response curve with the appropriate damping factor is selected. By using this conservative value and demonstrating that the stresses are satisfactory, it becomes unnecessary to perform any further analysis to determine the natural periods of the system.

3.0 SEISMIC WALKDOWN PROGRAM IMPLEMENTATION APPROACH

Entergy Indian Point Energy Center, Unit 2 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 Indian Point Energy Center, Unit 2. Entergy contracted with an outside nuclear services company to provide engineering and project management resources to supplement and assist each individual site. Each site had dedicated engineering contractors, supported by their own project management and technical oversight, who worked closely with plant personnel.

4.0 PERSONNEL QUALIFICATIONS

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

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

Table 4-1

Name	Equipment Selection Personnel	Seismic Walkdown Engineer	Licensing Basis Reviewer	IPEEE Reviewer
Richard Drake (ENTERGY)	X		X	
Douglas Gaynor (ENTERGY)	X			
Richard Gioggia (ENTERGY)	X			
John Balletta (ENTERGY)	X ¹			
Michael Koutsakos (ENTERGY)	X			
Michael Dries (ENTERGY)	X			
John Skonieczny (ENTERGY)	X			
Dragos Nuta (ENTERGY)		X ²	X	X
Nick Crispell (ENERCON)		X		
Paul Huebsch (ENERCON)		X		
Stephen Yuan (ENERCON)		X		
Kirit Parikh (ENERCON)		X		

Notes:

1. Plant operations representative
2. Designated lead SWE

Richard Drake

Mr. Richard Drake is the Civil/Structural Design Engineering Supervisor for Entergy Nuclear at the Indian Point Nuclear Plant. He has over 30 years of nuclear power generation experience, of which 18 years have been as an Indian Point Supervisor. His broad experience includes design engineering activities associated with seismic qualification of components, piping and structures. Mr. Drake is an EPRI trained Fukushima NTF Recommendation 2.3 Seismic Walkdown Engineer as well as being trained in the EPRI NARE/STERI seismic qualification method. Mr. Drake is a registered Professional Engineer in both NY and NJ.

Douglas Gaynor

Mr. Douglas Gaynor is a Senior Lead Engineer for Entergy Nuclear at the Indian Point Energy Center, responsible for probabilistic safety assessment (PSA). He holds a Bachelor Degree and Master Degree in Mechanical Engineering from Manhattan College and has 38 years of experience in the nuclear industry, including over 25 years in the area of probabilistic safety assessment. His nuclear experience also includes radiological and accident analysis, regulatory response and project coordination.

Richard Gioggia

Mr. Gioggia is an Engineering III for the Entergy Nuclear at Indian Point Plant. He has a Bachelor's degree in Mechanical Engineering from Manhattan College with 5 years of experience as a System Engineer at IPEC. He was also involved in the initial walkdowns for the Fukushima IER 11-1 responses for IPEC.

John Balletta

Mr. John Balletta is currently a Unit 2 Licensed SRO for Entergy Nuclear at Indian Point Energy Center. He has a Bachelor's Degree in Electrical Engineering from Manhattan College. He has 25 years of experience in the nuclear industry as an Instrument & Controls (I&C) Technician, I&C Supervisor, Test Engineer, Control Room Supervisor, Field Support Supervisor, and Shift Technical Advisor. He has been in Operations for the past 17 years in various positions of responsibility.

Michael Koutsakos

Mr. Michael Koutsakos is a Technical Specialist IV for the Main Steam Systems for Entergy Nuclear Northeast at Indian Points Energy Center. Mr. Koutsakos has an Associate of Applied Science Degree in Nuclear Technology, 27 years of nuclear experience at IPEC, 20 of which in the Operations Department including a Reactor Operators License. He has extensive knowledge of plant operations and procedures, accident and transient analysis and design bases functions of safety related SSC's.

Michael Dries

Mr. Michael Dries is a Senior Systems Engineer with Entergy Nuclear Operations, Inc. and a staff Engineer at Indian Point Energy Center. He has over 38 years experience in the Nuclear Industry and has held this position in System Engineering for approximately 19 years. Roles and responsibilities include trending of system performance, maintenance effectiveness, evaluation of degraded operation, classification of system components and knowledge of component design and licensing basis. He has or has had responsibility for the Reactor Coolant System, Spent Fuel Pool Cooling System, Fuel Handling System, Instrument Air System and Station Air System. He holds a Master of Science Degree in Mechanical Engineering from the New Jersey Institute of Technology.

John Skonieczny

Mr. Skonieczny is a Senior Civil/Structural Engineer and licensed Professional Engineer in the state of New York. He is SQUG qualified and has been at IPEC for over 10 years.

Paul Huebsch

Mr. Huebsch has worked as an ENERCON Civil/Structural Engineer for the past 9 years, and has successfully completed Training on Near Term Task Force Recommendation 2.3 Plant Walkdowns on 09/13/2012. He has a bachelor's degree and a master's degree with majors in structural engineering. Mr. Huebsch has 47 years of structural engineering experience in the commercial, industrial and nuclear fields. He is an active professional engineer in the state of New Jersey and was previously licensed in 12 other states.

Nick Crispell

Mr. Crispell has worked as an ENERCON Civil/Structural Engineer for the past 4 years, and has successfully completed Training on Near Term Task Force Recommendation 2.3 Plant Walkdowns on 09/13/2012. He has a bachelor's degree and a master's degree with majors in structural engineering. Mr. Crispell has 9 years of structural engineering experience in residential, commercial, and the nuclear fields. He is an active professional engineer in the state of Georgia.

Stephen Yuan

Mr. Stephen Yuan, P.E. is assigned to the ENERCON New Jersey office as a Senior Civil Engineer. Mr. Yuan has over 20 years of experience in structural computer modeling, design, rehabilitations, upgrading, electrical facility structure analyses and maintenance of industrial installations and nuclear power plants, including significant experience at Perry, Pilgrim and Vermont Yankee Plant. Mr. Yuan was one of the key civil engineers in support of the

transformer replacement project at Perry Nuclear Power Plant. Mr. Yuan holds a M.S. in Civil Engineering and PE in the states NY, NJ, PA, and NH.

Kirit Parikh

Mr. Parikh is a senior engineer assigned to the ENERCON New Jersey office as a Senior Civil Engineer. Mr. Parikh has over 25 years of Civil/Mechanical design, field engineering, modifications, work package preparation and closure. He has successfully completed Training on Near Term Task Force Recommendation 2.3 Plant Walkdowns on 09/28/2012.

Dragos Nuta

Mr. Dragos Nuta is a senior staff engineer for Entergy Nuclear at the Indian Point Energy Center and a Registered Professional Engineer. He is a civil/structural engineer with over 30 years of experience in the nuclear industry. He is a member of the ACI 349 Committee and a member of the ASCE Dynamic Analysis of Nuclear Structures Committee. Mr. Nuta is certified as a SQUG Seismic Capability Engineer and Fukushima NTTF Recommendation 2.3 Seismic Walkdown Engineer.

4.1 EQUIPMENT SELECTION PERSONNEL

A total of 7 individuals served as Equipment Selection Personnel – see Table 4-1.

4.2 SEISMIC WALKDOWN ENGINEERS

A total of 5 individuals served as Seismic Walkdown Engineers – see Table 4-1.

4.3 LICENSING BASIS REVIEWERS

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

4.4 IPEEE REVIEWERS

One individual served as IPEEE Reviewer – see Table 4-1.

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	Submittal Report Peer Reviewer
Thomas Panayotidi (ENERCON)	X	X ¹		X ¹
Kenneth Whitmore (ENERCON)	X ¹			
Pouria Pourghobadi (ENERCON)		X		
Richard Drake (ENTERGY)			X	
Maggie Farah (ENERCON)				X

Notes:

1. Peer Review Team Leader

Thomas Panayotidi

Dr. Panayotidi has worked as an ENERCON Civil/Structural Consulting Engineer for the past year, and has successfully completed Training on Near Term Task Force Recommendation 2.3 Plant Seismic Walkdowns on 09/13/2012. Dr. Panayotidi has a Doctorate of Engineering Science in Civil Engineering/Engineering Mechanics, with emphasis in finite element analysis, particularly for seismic and other dynamic loads. Dr. Panayotidi has over 30 years' experience as a Structural/Seismic Engineer in the nuclear field.

Kenneth Whitmore

Mr. Kenneth Whitmore is a senior structural engineer with ENERCON who has performed evaluations of structures at Perry, Oyster Creek, Humboldt Bay, Robinson, Millstone, Indian Point, Diablo Canyon, Grand Gulf, and St Lucie. Mr. Whitmore was the lead structural engineer for the Dry Fuel Storage designs at Grand Gulf and Robinson as well as performing analysis and design for dry fuel projects at Millstone, Diablo Canyon, Humboldt Bay and St. Lucie. Mr. Whitmore also performed structural analysis for security upgrade work at Robinson, Indian Point, Nine Mile Point and Fitzpatrick and structural assessments at Crystal River, Perry, St. Lucie and Davis Besse. Mr. Whitmore has been responsible for reviewing documents related to the seismic issues associated with several COL applications and for developing conceptual designs for balance of plant systems and components for proposed new nuclear plants, related to COL applications. He is currently the lead structural engineer in the ENERCON Mt. Arlington, NJ office, responsible for continuing plant services and

completed the Training on Near Term Task Force Recommendation 2.3 Plant Seismic Walkdowns on 06/21/2012.

Pouria Pourghobadi

Mr. Pourghobadi is a civil/structural Engineer with ENERCON. Mr. Pourghobadi has successfully completed Training on Near Term Task Force Recommendation 2.3 Plant Seismic Walkdowns in 09/13/2012. Mr. Pourghobadi has performed civil/structural engineering support to various nuclear facilities included steel and foundation analysis and design.

Richard Drake

Mr. Richard Drake is the Civil/Structural Design Engineering Supervisor for Entergy Nuclear at the Indian Point Nuclear Plant. He has over 30 years of nuclear power generation experience, of which 18 years have been as an Indian Point Supervisor. His broad experience includes design engineering activities associated with seismic qualification of components, piping and structures. Mr. Drake is an EPRI trained Fukushima NTTF Recommendation 2.3 Seismic Walkdown Engineer as well as being trained in the EPRI NARE/STERI seismic qualification method. Mr. Drake is a registered Professional Engineer in both NY and NJ.

Maggie Farah

Ms. Farah is a Civil/Structural Engineer in ENERCON's NJ office. She has over 4 years of experience performing structural analysis and design in nuclear industry. Her experience includes developing and analyzing finite element models using a variety of software to aid the design of numerous structural components and systems. She is experienced in preparing design calculations and analysis of concrete and steel structures, conducting dynamic analyses of structures to resist seismic and hydrodynamic loads, designing various structural support systems to comply with regulations and restrictions at nuclear facilities. Ms. Farah is an EPRI trained Fukushima NTTF Recommendation 2.3 Seismic Walkdown Engineer and was a Seismic Walkdown Engineer for Plant Farley.

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 4.4) reviewed the IPEEE final report [Ref. 5] 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 Indian Point Energy Center, Unit 2 during the IPEEE program are reported in Attachment A. As a result of the IPEEE analysis, the hold-down bolts on the CCW Surge Tank were replaced with high strength bolts.

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 (SC) I equipment or systems that support the five safety functions. Base List 1 was derived from both the IPEEE equipment list and the USI-A46 equipment list. The portion of the IP2 IPEEE addressing seismic events used a probabilistic risk analysis rather than a seismic margins approach to address beyond design basis events. Since the analysis provided an integrated assessment of the plant, it inherently addressed the five safety functions. The objective of the USI-A46 program was to develop a list of equipment that will provide safe shutdown of the reactor and maintain a safe stable state in response to a design basis earthquake.

The USI-A46 equipment list was also used as a starting point for the NTTF 2.3 Seismic Walkdown Base List 1. Base List 1 is presented as Table 1 in Attachment B, and has 986 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 4.1) 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 101 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. The system type of each item on SWEL 1 is listed on Table 2 of Attachment B.

Major New and Replacement Equipment

The Equipment Selection Personnel, and the Configuration Management Group, with assistance from plant operations, identified items on Base List 1 which are either major

new or replacement equipment installed within the past 15 years, or have been modified or upgraded recently. These items are designated as such on Base List 1 on Table 1 of Attachment B. A robust sampling of these items is represented on SWEL 1.

Variety of Equipment Types

According to Appendix B of the Guidance, there are 22 classes of mechanical and electrical equipment. The items on Base List 1 were classified accordingly and the total number 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. The equipment class of each item on SWEL 1 is listed on Table 1 of Attachment B. Note that SWEL 1 does not include Class 3, medium voltage, metal clad switchgear components, because this class of equipment does not exist on the Unit 2 site.

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 both inside and outside, as well as having high temperature and/or elevated humidity and within containment. Items that were part of borated systems were included as well. The location and environment of each item on SWEL 1 is listed on Table 1 of Attachment B.

IPEEE Enhancements

With assistance from IPEEE Reviewers, Equipment Selection Personnel identified items on Base List 1 which were enhanced as a result of seismic vulnerabilities identified during the IPEEE program (see Section 5.0). Such items are designated as such on Base List 1 on Table 1 of Attachment B and are represented on SWEL1.

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. 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 equipment 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 4.1) reviewed plant design and licensing basis documentation and plant drawings for the SFP and its associated cooling system

Base List 2 is presented as Table 3 in Attachment B, and has 10 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 4.1) 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.

This review assessed the hydraulic lines and connected equipment of each such penetration for potentially seismically-induced failure modes that could lead to rapid drain down. The list of SSCs that could cause rapid drain-down is presented as Table 4 in Attachment B which includes the specific basis for determining which SSCs could or could not cause rapid drain-down. The rapid drain-down list has a total of 3 items.

6.2.3 SWEL 2

Based on Figure 1-2 and Section 3 of the Guidance, SWEL 2 is a broad population of items on Base List 2 including representative items from some of the variations within each of four sample selection attributes (using sample process similar to SWEL 1), plus each item that could potentially cause rapid-drain down of the SFP. 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 5 in Attachment B, and has 7 total items; of these, 7 items are selected from Base List 2, and none are from the rapid drain-down list because these items fall into one of the following categories:

- Routinely disassembled, inspected and reassembled every refueling outage and excluded per FAQ 3.17 of Reference 2
- Routinely inspected every refueling outage and excluded per FAQ 3.16 of Reference 2

Not accessible (in Spent Fuel Pool) and additionally are in the category of piping, not equipment or component.

Variety of Types of Systems

There are 4 systems associated with SFP cooling. The four systems are defined as cooling, purification, structure and overhead items which could potentially damage the pool components. Each of these systems with the exception of structure is well-represented on the SWEL2 list. Structure has been eliminated from the SWEL2 list based on routine inspection, accessibility and category (i.e. item is piping, not equipment or component) as identified in Attachment B.

Major New and Replacement Equipment

With the exception of the Ederer crane, there have been no major new or replacement equipment installations within the past 15 years associated with the SFP. Therefore, this sampling attribute is not applicable.

Variety of Equipment Types

There are 3 different equipment classes represented on Base List 2: 0, 5 and 21. Each of these equipment classes is 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 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 Indian Point Energy Center Unit 2 was at power during the entire 180-day response period of Enclosure 3 to the 50.54(f) Letter. For these cases, walkdowns of these items have been deferred until the next refueling outage (RFO) in March/April of 2014. An updated submittal report incorporating these deferred walkdowns will be provided in June of 2014.

Deferred items are summarized in the table below. The reason for deferral is identified as either ACC (indicating that the item is inaccessible 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 or otherwise). A total of 31 items are deferred; of these, 12 are in inaccessible areas, and 20 are cabinets/panels required to be opened. Of the above, one deferred item is both inaccessible and needs cabinets opened.

SWEL#	Equipment ID	Description	Location	Reason
SWEL1-006	MCC-26A	480 VAC MCC	PA EL.98'-0"	CAB
SWEL1-007	MCC-26AA	480 VAC MCC	PA EL.98'-0"	CAB
SWEL1-008	MCC-26B	480 VAC MCC	PA EL.98'-0"	CAB
SWEL1-009	MCC-26BB	480 VAC MCC	PA EL.98'-0"	CAB
SWEL1-010	MCC-27A	480 VAC MCC	PA EL.98'-0"	CAB
SWEL1-011	MCC-29	480 VAC MCC	CB EL.33'-0"	CAB
SWEL1-012	MCC-26C	480 VAC MCC	CB EL.33'-0"	CAB
SWEL1-015	52/RTA	REACTOR TRIP BREAKER A	CB EL.33'-0"	CAB
SWEL1-063	IBUS21	118 VAC INSTRUMENT BUS 21	CB EL.53'-0"	CAB ACC
SWEL1-064	DPNL22	125 VDC DISTRIBUTION PANEL 22 PC4	CB EL.53'-0"	CAB
SWEL1-067	EDC1	STATIC INVERTER #23 MANUAL BY-PASS SWITCH	CB EL.33'-0"	CAB
SWEL1-072	MI9	BATTERY CHARGER 21	CB EL.33'-0"	CAB
SWEL1-073	EGA3	BATTERY CHARGER 24	CB EL.33'-0"	CAB
SWEL1-074	EGA1	10 KVA STATIC INVERTER #21	CB EL.33'-0"	CAB
SWEL1-075	EGA8	10 KVA STATIC INVERTER #23	CB EL.33'-0"	CAB
SWEL1-076	0021EDG	DIESEL GENERATOR NO. 21	EDG EL.72'-0"	CAB

SWEL#	Equipment ID	Description	Location	Reason
SWEL1-077	0022EDG	DIESEL GENERATOR NO. 22	EDG EL.72'-0"	CAB
SWEL1-078	0023EDG	DIESEL GENERATOR NO. 23	EDG EL.72'-0"	CAB
SWEL1-081	IP2-EDGB-72-DB6	EDG BLDG 72' EL ENGINE AUXILIARIES CTRL PANEL	EDG EL.72'-0"	CAB
SWEL1-087	PNL PP9	EDG 21 CONTROL PANEL	EDG EL.72'-0"	CAB
SWEL1-082	INST RK 19	INSTRUMENT RACK 19	VC EL.68'-0"	ACC
SWEL1-083	INST RK 21	INSTRUMENT RACK 21	VC EL.68'-0"	ACC
SWEL1-086	TE-122	EXCESS LETDOWN TEMP ELEMENT	VCI EL.46'-0"	ACC
SWEL1-101	21AT	21 SIS ACCUMULATOR	VC EL.46'-0"	ACC
SWEL1-003	22AT	22 SIS ACCUMULATOR	VC EL.46'-0"	ACC
SWEL1-033	22RP	22 RECIRC PUMP	VC EL.46'-0"	ACC
SWEL1-052	0021CRF	CONTAINMENT RECIRC FAN 21	VC EL.68'-0"	ACC
SWEL1-053	0022CRF	CONTAINMENT RECIRC FAN 22	VC EL.68'-0"	ACC
SWEL1-054	0023CRF	CONTAINMENT RECIRC FAN 23	VC EL.68'-0"	ACC
SWEL1-055	0024CRF	CONTAINMENT RECIRC FAN 24	VC EL.68'-0"	ACC
SWEL1-056	0025CRF	CONTAINMENT RECIRC FAN 25	VC EL.68'-0"	ACC

7.0 SEISMIC WALKDOWNS AND AREA WALK-BYS

The NTTF 2.3 Seismic Walkdown program, conducted in accordance with the Guidance, involves two primary walkdown activities: Seismic Walkdowns and Area Walk-Bys. These activities were conducted at Indian Point Energy Center, Unit 2 by teams of a minimum of two trained and qualified Seismic Walkdown Engineers (SWEs) (see Section 4.2). Each team included one engineer with at least several years of experience in seismic design and qualification of nuclear power plant SSCs. A total of five individuals forming SWE teams of two or three individuals were used. One of the individuals was a member of the site Engineering group. The teams periodically “shuffled” personnel to cross-check consistency between the SWEs and to ensure that lessons learned were being shared. SWE teams were occasionally accompanied into the field by Plant Operations personnel to open cabinets.

The seismic walkdowns and area walk-bys were conducted over the course of 3.5 weeks during 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, flashlights, mirrors and calipers 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, Seismic Walkdown Checklist (SWC) with the same content as that included in Appendix C of the Guidance was created for each item. Additionally, where permitted by Plant Operations and plant procedures, 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 pre-filled SWC and other pertinent information including the location drawings, response spectra information, previous IPEEE seismic walkdown documentation, current operability evaluations affecting SWEL items, SQUG packages where available 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. The 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. Nevertheless, the attachment of these components to other equipment was evaluated and inspected for potentially adverse seismic conditions.

Cabinets/panels on the SWEL that could be 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). Where opening the cabinet/panel exhibited undue safety or operational hazards, it was considered inaccessible and the completion of the walkdown of that item was deferred to a later time (see Section 6.3). Where opening the cabinet/panel required extensive disassembly (e.g., doors or panels were secured by more than latches, thumbscrews, or similar), justification for how the inspection met the program goal without opening the cabinet/panel was included on the SWC and the walkdown of that item is considered complete.

In addition to the general inspection requirements, at least 50% of the SWEL items having anchorage required confirmation that the anchorage configuration was consistent with plant documentation. Of the 108 SWEL items (SWEL1 plus SWEL2), 100 were considered to have anchorage (i.e., removing in-line/line-mounted components). Of these 100 anchored components, the walkdowns of 56 included anchorage configuration verification, which is greater than 50%. When 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. The SWEL items that have "ACC" designations in Section 6.3 are not contained in Attachment C in this revision of the report. For the combined SWEL1 and SWEL2 list, a total of 95 SWCs are attached, 54 with completion status marked "Y" and 41 with completion status marked "U". The designation "Y" indicates that the walkdown is complete and all required information has been collected. There is no need to revisit the item. The designation "U" indicates that the SWEL walkdown is incomplete and the item must be revisited to obtain additional information.

Thirteen SWCs are fully deferred. SWCs considered and marked incomplete 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. Therefore, the 54 completed SWCs represent the completed walkdowns of each SWEL item accessible during the walkdown period.

7.2 AREA WALK-BYS

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

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. The extent of the areas included in the area walk-bys is described on the AWC for that area. Because certain areas contained more than one SWEL item, there are fewer total area walk-bys conducted than seismic walkdowns. A total of 36 area walk-bys was necessary to cover all plant areas containing at least one accessible SWEL item.

The AWC for each area walk-by completed is included in Attachment D. A total of 36 AWCs are attached, which represent all of the areas containing SWEL items that were accessible during the walkdown period. An estimated additional 11 area walk-bys of areas inside containment and in the Control Room 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.

8.1 CONDITION IDENTIFICATION

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

For conditions that were reasonably 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 or uncertain conditions were reported to site personnel for further resolution through the Corrective Action Program (CAP) (see Section 8.2). A total of 88 seismically insignificant conditions were identified. These conditions were generally related to housekeeping.

For conditions that were 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 51 potentially adverse seismic conditions were identified. These conditions were generally related to housekeeping (22), non-conforming anchorage (7), spatial interaction (22), or inadequate line flexibility (0).

8.2 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 either with a Licensing Basis Evaluation (LBE) to determine whether it requires entry into the CAP, or by entering it into the CAP directly. The decision to conduct a LBE or enter the condition directly into the CAP was made on a case-by-case basis, based on the perceived efficiency of each process for eventual resolution of each specific condition.

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

8.3 LICENSING BASIS EVALUATIONS

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

Of the 51 identified potentially adverse seismic conditions, 14 LBEs were performed. Each LBE performed is documented consistently, and included in Attachment F. The results of these LBEs with respect to the associated potentially adverse seismic conditions are summarized in Attachment E. A total of 18 potentially adverse seismic conditions evaluated using a LBE were dispositioned and required no further action due to seismic concerns.

8.4 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 for an eventual disposition. Conditions entered into the CAP included three types of unusual conditions identified:

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

A total of 57 Condition Reports (CRs) were generated from the CAP as a result of the NTTF 2.3 Seismic Walkdown program. Of these, 2 CRs were generated to hold License Basis Evaluations.

Several of the CRs addressed similar conditions at a variety of locations or addressed multiple conditions at a single location. For this reason, some CRs addressed both insignificant seismic issues and potentially adverse seismic conditions. Of the 57 CRs noted above, the majority (38) was exclusively for seismically insignificant unusual conditions, 6 contained both seismically insignificant and potentially adverse seismic conditions and 13

CRs were related exclusively to potentially adverse seismic conditions . The CR numbers, current status, and resolution (where applicable and available) are summarized for these potentially adverse seismic conditions in Attachment E.

8.5 PLANT CHANGES

The CAP entries (CRs) generated by the NTTF 2.3 Seismic Walkdown program are being resolved in accordance with the plant CAP process, including operability evaluations, extent of condition evaluations, and root cause analysis (where applicable). 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 NTF Recommendation 2.3 Seismic Walkdowns was performed in accordance with Section 6 of the Guidance. The peer review included an evaluation of the following activities:

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

At least two members of the peer review team (see Table 4.2) were involved in the peer review of each activity, the team member with the most relevant knowledge and experience 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.

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

9.2 PEER REVIEW OF SEISMIC WALKDOWNS AND WALK-BYS

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

9.2.1 Seismic Walkdown Equipment List Development

The peer review of SWEL follows Section 3 of the EPRI guidance.

Since periodic inspections of Seismic Class I (SC-I) structures are routinely performed to monitor and control their structural degradation, SC-I structures were excluded from the equipment list. For similar reasons, SC-I piping and containment penetrations were also excluded.

Review of the SWEL confirms that various classes of equipment, as identified under the IPEEE Safe Shutdown Equipment List (SSEL) were considered. The classes, ranging from 0 to 21, are summarized in Appendix B of the EPRI guidance. Base List 1 included 986 components. From these, 101 components, representing a variety of

process systems such as Chemical and Volume Control, High/Low Pressure Recirculation/Injection, Auxiliary Feedwater, Emergency Boration, Residual Heat Removal, and others, were selected. Each component was screened in accordance with the EPRI guidance (screens 1 thru 4) to ensure that it satisfied at least one of the five safety functions:

- 1) Reactor Reactivity Control
- 2) Reactor Coolant Pressure Control
- 3) Reactor Coolant Inventory Control
- 4) Decay Heat Removal
- 5) Containment Integrity

In addition, a variety of environmental conditions (high/low temperature, humidity; indoor versus outdoor, boration system), whether the item was a major new or replacement equipment since IPEEE implementation, whether the item was previously identified as a IPEEE vulnerability, and whether the item's failure would constitute a severe and immediate threat to safe operation of the plant (high risk), were considered during the final selection for SWEL-1.

There were ten Spent Fuel Pool related components, as shown in Attachment B, Table 3, and three Rapid-Draw-Down related components, as shown in Attachment B, Table 4, selected for Base 2 List. The Rapid-Draw-Down components were excluded from further consideration because the Fuel Transfer Tube Blind Flange (IP2) and Fuel Transfer Canal Weir Gate (IP2) are routinely inspected, and the abandoned 4" Pipe Penetration (IP2), although inaccessible within the Spent Fuel Pool, is not a "component" or "equipment", but is part of the "structure". A variety of environments and equipment classes were then considered, and the final SWEL-2, consisting of seven items, was formed.

The comments made by the reviewers of the SWEL were mostly editorial; others were made to request clarification ("Are the 50% anchorage verification items indicated on the SWEL?" The answer was "Yes"). One reviewer asked why there were no IPEEE vulnerabilities reflected on the SWEL. The answer was that there were no "findings" after the IPEEE implementation for Unit 2. However, hold-down bolts on the CCW Surge Tank were upgraded to high strength bolts to increase seismic resistance.

In essence, this Peer Review of the SWEL confirms that preparation of the SWEL was conducted with extreme care, paying particular attention to the sampling process, to assure that a variety of systems, components, environments and risk insights associated with safe operation of the plant, have been implemented.

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

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, each of whom is a qualified SWE and has broad knowledge of seismic engineering applied to nuclear power plants. One of the peer reviewers participated in the seismic walkdown program for a different utility, and the other is engaged with the industry team which developed the Guidance (see Section 4.2). The peer reviews were conducted at the Indian Point Energy Center, Unit 2 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 23 SWC and 5 AWC forms were reviewed, each representing approximately 23% 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 SWEL1-013, SWEL 1-014, SWEL 1-015, SWEL 1-016, SWEL 1-017, SWEL 1-018, SWEL 1-019, SWEL 1-024, SWEL 1-032, SWEL 1-035, SWEL 1-036, SWEL 1-047, SWEL 1-051, SWEL 1-059, SWEL 1-060, SWEL 1-061, SWEL 1-065, SWEL 1-066, SWEL 1-068, SWEL 1-084, SWEL 1-089, SWEL 1-099, and SWEL 1-100. Specific AWC forms reviewed are AWC-02, AWC-04, AWC-06, AWC-04, and AWC-07. While reviewing the walkdown packages, the peer reviewers conducted informal interviews of the SWEs and asked clarifying questions to verify that they 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.
- Each peer reviewer accompanied each SWE team into the field and observed them perform a walkdown of a SWEL component and its associated area walk-by. 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 SWEL1-32. The associated area walk-by performed under the observation of a peer reviewer is AWC-12,

- 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 walkdowns and area walk-bys demonstrated that the SWEs understood the recommendations and were incorporating them into the walkdown and area walk-by process. Previously completed checklists were revised to reflect lessons learned from the peer review 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.

9.2.3 Licensing Basis Evaluations

A peer review was completed of the licensing basis evaluations provided in Attachment F and the corresponding summary sheet provided in Attachment E. The majority of the licensing basis evaluations provided immediate resolution to operability concerns of the potentially adverse conditions identified by the walkdown personnel. Within these licensing basis evaluations, CRs were generated for maintenance issues to replace missing bolts, nuts or remove items for housekeeping issues, or to provide further, detailed resolution of the potentially adverse seismic condition. The remaining licensing basis evaluations were created to document potentially adverse seismic conditions that were immediately entered into the CAP for detailed evaluation and investigation. The peer review of these LBEs ensured that all the information provided

from the walkdown team to the licensing basis evaluation team member provided enough detail for accurate and timely resolution.

9.2.4 Submittal Report

The peer reviewer was provided with an early draft of this submittal report for peer review. The peer reviewer verified that the submittal report met the objectives and requirements of Enclosure 3 to the 50.54(f) Letter, and documented the NTTF 2.3 Seismic Walkdown program performed in accordance with the Guidance. The peer reviewer 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. Indian Point 2 UFSAR Revision 22
4. Generic Letter No. 88-20, Supplement 4, Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
5. Individual Plant Examination of External Events for Indian Point Unit No. 2 Nuclear Generating Station, December 1995
6. Generic Letter No. 87-03, Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46
7. Seismic Qualification Utility Group (SQUG) Procedure: Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Power Plant Equipment, Revision 3A, December 2001
8. EPRI-NP-5228-SL, Revision 1, Seismic Verification of Equipment Anchorage
9. NUREG-1407, Procedural and Submittal Guidance of the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities
10. EN-DC-168, Fukushima Near-Term Task Force Recommendation 2.3 Seismic Walk-down Procedure

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 – REVIEW COMMENTS AND RESOLUTIONS FORM

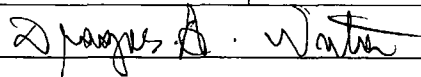
ATTACHMENT I – SEISMIC WALKDOWN ENGINEER TRAINING CERTIFICATES

ATTACHMENT A – IPEEE VULNERABILITIES SUMMARY

#	IPEEE VULNERABILITY	COMMITMENT	RESOLUTION	CMP	RESOLVED
V-01	A sensitivity study was performed to examine the potential core damage frequency reduction if several bolts on the CCW surge tank supports were replaced with high strength bolts. Such a modification would strengthen the surge tank such that it would be screened out of the analysis based on high seismic capacity (greater than 1.5g median acceleration and OSg HCLPF).	During the course of the seismic IPEEE effort, it was determined that, although the Component Cooling Water Surge Tank met its design basis, the capacity of the tank to withstand beyond design basis seismic events was limited by the capacity of the hold down bolts. As a result of this IPEEE finding, those hold down bolts were to be replaced by higher tensile strength bolts.	The hold-down bolts of the CCW Surge Tank were replaced with high strength bolts.	Y	1995

Prepared by:

Dragos Nuta



Date: 11/08/2012

ATTACHMENT B – SEISMIC WALKDOWN EQUIPMENT LISTS

Table 1 Base List 1

UNIT	SSE/EQUIP CLASS	CURRENT EQUIPMENT ID	SSE/EQUIP ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic?	Undergo Regular Configuration Inspections	Maintains a Record of the Safety Functions	Replaced	PEEE	Environment? Inside/Outside (I/O)	High Steam / Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
2	00 - Generic Input Form	21CHPD	0021CHPD	CHARGING PUMP NO. 21 PULSATION DAMPENER	YES	NO	YES			I		B	x		x			
2	00 - Generic Input Form	21SWPS	0021SWPS	NO. 21 SERVICE WATER PUMP AUTOMATIC STRAINER	YES	NO	YES	YES		I	H						x	
2	00 - Generic Input Form	22CHPD	0022CHPD	CHARGING PUMP NO. 22 PULSATION DAMPENER	YES	NO	YES	NO		I		B	x		x			
2	00 - Generic Input Form	22SWPS	0022SWPS	NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER	YES	NO	YES	YES		O	H							x
2	00 - Generic Input Form	23CHPD	0023CHPD	CHARGING PUMP NO. 23 PULSATION DAMPENER	YES	NO	YES	NO		I			x		x			
2	00 - Generic Input Form	23SWPS	0023SWPS	NO. 23 SERVICE WATER PUMP AUTOMATIC STRAINER	YES	NO	YES	YES		O	H							x
2	00 - Generic Input Form	24SWPS	0024SWPS	NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINER	YES	NO	YES	YES		O	H							x
2	00 - Generic Input Form	25SWPS	0025SWPS	NO. 25 SERVICE WATER PUMP AUTOMATIC STRAINER	YES	NO	YES	YES		O	H							x
2	00 - Generic Input Form	26SWPS	0026SWPS	NO. 26 SERVICE WATER PUMP AUTOMATIC STRAINER	YES	NO	YES	YES		O	H							x
2	00 - Generic Input Form	BAB	BRC ACD BLNDR	BORIC ACID BLENDER	YES	NO	YES	NO		I		B	x					
2	01 - Motor Control Centers	MCC24	MCC-24	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC24A	MCC-24A	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC26A	MCC-26A	480 VAC MCC	YES	NO	YES	YES		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC26AA	MCC-26AA	480 VAC MCC	YES	NO	YES	YES		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC26B	MCC-26B	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC26BB	MCC-26BB	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC26C	MCC-26C	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC27	MCC-27	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC27A	MCC-27A	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC28	MCC-28	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC28A	MCC-28A	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC29	MCC-29	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	01 - Motor Control Centers	MCC29A	MCC-29A	480 VAC MCC	YES	NO	YES	NO		I			x	x	x	x	x	x
2	02 - Low Voltage Switchgear		AL8	REACTOR TRIP BREAKER A & B SWITCHGEAR	YES	NO	YES	NO		I			x					
2	02 - Low Voltage Switchgear		AL8	REACTOR TRIP BREAKER A & B SWITCHGEAR	YES	NO	YES	NO		I			x					
2	02 - Low Voltage Switchgear		AL9	REACTOR TRIP BY-PASS SWITCHGEAR A & B	YES	NO	YES	NO		I			x					
2	02 - Low Voltage Switchgear		AL9	REACTOR TRIP BY-PASS SWITCHGEAR A & B	YES	NO	YES	NO		I			x					
2	02 - Low Voltage Switchgear	BUS 2A	BUS 2A	480 VAC SWITCHGEAR 22 BUS 2A	YES	NO	YES	NO		I			x	x	x	x	x	x
2	02 - Low Voltage Switchgear	BUS 3A	BUS 3A	480 VAC SWITCHGEAR BUS 3A	YES	NO	YES	NO		I			x	x	x	x	x	x
2	02 - Low Voltage Switchgear	BUS 5A	BUS 5A	480 VAC SWITCHGEAR 21 BUS 5A	YES	NO	YES	NO		I			x	x	x	x	x	x

UNIT	SSEL/EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic?	Undergo Regular Configuration Inspections	Maintains at least one of the 5 Safety Functions	Replaced	IEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
										Inside/Outside (I/O)	High Temp / Humidity (T/H)	Borated System						
2	02 - Low Voltage Switchgear	BUS 6A	BUS 6A	480 VAC SWITCHGEAR 22 BUS 6A	YES	NO	YES	NO					x	x	x	x	x	
2	04 - Transformers	BB7	BB7	PRESSURIZER HEATER BACKUP GROUP #23 TRANSFORMER	YES	NO	YES	YES						x				
2	04 - Transformers	BB8	BB8	PRESSURIZER HEATER TRANSFORMER	YES	NO	YES	YES						x				
2	04 - Transformers	BB9	BB9	PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMER	YES	NO	YES	YES						x				
2	04 - Transformers	BC2	BC2	480/120 VAC TRANSFORMER #22	YES	NO	YES	NO					x	x	x	x	x	
2	04 - Transformers	EBA1	EBA1	480/120 VAC TRANSFORMER #23	YES	NO	YES	NO					x	x	x	x	x	
2	04 - Transformers	EBA5	EBA5	480/120 VAC TRANSFORMER #24	YES	NO	YES	NO					x	x	x	x	x	
2	04 - Transformers	EBB12	EBB12	480/120 VAC TRANSFORMER #21	YES	NO	YES	NO					x	x	x	x	x	
2	04 - Transformers	NONE	EBB2	480V/208-120V TRANSFORMER#2	YES	NO	YES	YES					x	x	x	x	x	
2	04 - Transformers	sST5		STATION SERVICE TRANSFORMER 5A	YES	NO	YES	YES					x	x	x	x	x	
2	05 - Horizontal Pumps	21SIP-PMP	0021SIP	SAFETY INJECTION PUMP 21	YES	NO	YES	YES			B						x	
2	05 - Horizontal Pumps	22AFP-PMP	0022AFP	AUX FEED PUMP NO. 22	YES	NO	YES	NO										x
2	05 - Horizontal Pumps	22CCP-PMP	0022CCP	CCW PUMP NO. 22	YES	NO	YES	YES										x
2	05 - Horizontal Pumps	22CHP-PMP	0022CHP	NO. 22 CHARGING PUMP	YES	NO	YES	NO			B		x			x		
2	05 - Horizontal Pumps	21CSP	21CSP	CONTAINMENT SPRAY PUMP 21	YES	NO	YES	NO			B			x		x	x	
2	05 - Horizontal Pumps	22CSP	22CSP	CONTAINMENT SPRAY PUMP 22	YES	NO	YES	NO			B			x		x	x	
2	05 - Horizontal Pumps	22CHPFCA	0022CHPFCA	CHARGING PUMP NO. 22 FLUID DRIVE COOLER A	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	22CHPFCB	0022CHPFCB	CHARGING PUMP NO. 22 CRANKCASE OIL COOLER	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	22IACCLWP	0022CLWP	22 I/A CMPR CL COOLING WATER PMP	YES	NO	YES	YES					x	x	x	x	x	
2	05 - Horizontal Pumps	22PWMP	0022PWMP	PRIM WATER MAKE-UP PUMP 22	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	22SIP-PMP	0022SIP	SAFETY INJECTION PUMP 22	YES	NO	YES	YES			B					x	x	
2	05 - Horizontal Pumps	23AFP-PMP	0023AFP	AUX FEED PUMP NO. 23	YES	NO	YES	NO										x
2	05 - Horizontal Pumps	23CCP-PMP	0023CCP	CCW PUMP NO. 23	YES	NO	YES	YES										x
2	05 - Horizontal Pumps	23CHP-PMP	0023CHP	NO. 23 CHARGING PUMP	YES	NO	YES	NO			B		x			x		
2	05 - Horizontal Pumps	23CHPFCA	0023CHPFCA	23 CHARG PMP FLUID DRV COOLER	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	23CHPFCB	0023CHPFCB	23 CHARG PMP FLUID DRV COOLER	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	23SIP-PMP	0023SIP	SAFETY INJECTION PUMP 23	YES	NO	YES	YES			B					x	x	
2	05 - Horizontal Pumps	21AFP-PMP	21AFP	AUX FEED PUMP NO. 21	YES	NO	YES	NO										x
2	05 - Horizontal Pumps	21BATP	21BATP	BORIC ACID TRANSFER PUMP 21	YES	NO	YES	NO			B		x			x		
2	05 - Horizontal Pumps	21CCP-PMP	21CCP	CCW PUMP NO. 21	YES	NO	YES	YES										x
2	05 - Horizontal Pumps	21CHP-PMP	21CHP	NO. 21 CHARGING PUMP	YES	NO	YES	NO			B		x			x		
2	05 - Horizontal Pumps	21CHPFCA	21CHPFCA	21 CHARGING PUMP FLUID DRIVE COOLER A	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	21CHPFCB	21CHPFCB	21 CHARGING PUMP CRANKCASE OIL COOLER	YES	NO	YES	NO					x			x		
2	05 - Horizontal Pumps	21IACCLWP	21CLWP	21 I/A CMPR CL COOLING WATER PMP	YES	NO	YES	YES					x	x	x	x	x	

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions				
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								Inside/Outside (I/O)	High Temp./Humidity (T/H)	Borated System						
2	05 - Horizontal Pumps	21PWMP	21PWMP	PRIM STR MAKE-UP PUMP 21	YES	NO	YES	NO	I			x		x		
2	05 - Horizontal Pumps	22BATP	22BATP	BORIC ACID TRANSFER PUMP 22	YES	NO	YES	NO	I		B	x		x		
2	06 - Vertical Pumps	21SWP-PMP	0021SWP	21 SERVICE WATER PUMP	YES	NO	YES	YES	O	H					x	
2	06 - Vertical Pumps	22FOTP	0022FOTP	FUEL OIL TRANSFER PUMP D G 22	YES	NO	YES	YES	O							
2	06 - Vertical Pumps	22RHRP-PMP	0022RHRP	RHR PUMP NO. 22	YES	NO	YES	NO	I		B			x	x	
2	06 - Vertical Pumps	21RP	21RCMP	21 RECIRC PUMP	YES	NO	YES	NO	I	T			x	x	x	x
2	06 - Vertical Pumps	22RP	22RCMP	22 RECIRC PUMP	YES	NO	YES	NO	I	T			x	x	x	x
2	06 - Vertical Pumps	22SWP	0022SWP	22 SERVICE WATER PUMP	YES	NO	YES	YES	O	H					x	
2	06 - Vertical Pumps	23FOTP	0023FOTP	FUEL OIL TRANSFER PUMP D.G. 23	YES	NO	YES	NO	O	H		x	x	x	x	x
2	06 - Vertical Pumps	23SWP-PMP	0023SWP	23 SERVICE WATER PUMP	YES	NO	YES	YES	O	H					x	
2	06 - Vertical Pumps	24SWP-PMP	0024SWP	24 SERVICE WATER PUMP	YES	NO	YES	YES	O	H					x	
2	06 - Vertical Pumps	25SWP-PMP	0025SWP	25 SERVICE WATER PUMP	YES	NO	YES	YES	O	H					x	
2	06 - Vertical Pumps	26SWP-PMP	0026SWP	26 SERVICE WATER PUMP	YES	NO	YES	YES	O	H					x	
2	06 - Vertical Pumps	21FOTP	21FOTP	FUEL OIL TRANSFER PUMP D G. 21	YES	NO	YES	NO	O			x	x	x	x	x
2	06 - Vertical Pumps	21RHRP	21RHRP	RHR PUMP NO. 21	YES	NO	YES	YES	I		B			x	x	
2	07 - Fluid-Operated Valves	200A	0200A	21 LETDOWN ORIFICE ISO VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	200B	0200B	22 LETDOWN ORIFICE ISO VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	200C	0200C	23 LETDOWN ORIFICE ISO VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	204A	0204A	ALT CHG FLOW NO 2 HOT LEG CTRL VALVE	YES	NO	YES	NO	I	T/H	B	x		x		
2	07 - Fluid-Operated Valves	204B	0204B	CHG FLOW NO 1 COLD LEG CTRL VALVE	YES	NO	YES	NO	I	T/H	B	x		x		
2	07 - Fluid-Operated Valves	201	201	LETDN LINE ISO VALVE			YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	202	202	LETDN LINE ISO VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	203	203	ALT CHG FLOW NO 2 HOT LEG CTRL VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	212	212	AUX SPRAY CTRL VALVE	YES	NO	YES	YES	I	T/H	B		x			
2	07 - Fluid-Operated Valves	213	213	EXCESS LETDOWN CTRL VALVE	YES	NO	YES	YES	I	T/H	B			x		
2	07 - Fluid-Operated Valves	215	215	EXC LETDN LINE 3WAY CTRL VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	07 - Fluid-Operated Valves	310	310	LETDOWN TO VCT DEMINERALIZERS	YES	NO	YES	NO	I		B	x				
2	07 - Fluid-Operated Valves	549	549	PRESS RELIEF GAS ANALYZER CTRL VALVE	YES	NO	YES	NO	I							x
2	07 - Fluid-Operated Valves	552	552	PRIMARY WATER MAKE-UP TO PRT VALVE	YES	NO	YES	NO	I							x
2	07 - Fluid-Operated Valves	791	791	CCW TO EXC L/DN HX-21 ISO VALVE	YES	NO	YES	NO	I							x
2	07 - Fluid-Operated Valves	793	793	CCW RETURN FR EXC L/D ISO VALVE	YES	NO	YES	NO	I							x
2	07 - Fluid-Operated Valves	796	796	CCW RETURN FR EXC L/DN HX-21 ISO VALVE	YES	NO	YES	NO	I							x
2	07 - Fluid-Operated Valves	798	798	CCW TO EXC L/DN HX-21 ISO VALVE	YES	NO	YES	NO	I							x
2	07 - Fluid-Operated Valves	EA-1	EA-1	IA TO CB PA VENT	YES	NO	YES	NO	I			x	x	x	x	x
2	07 - Fluid-Operated Valves	FCV-110A	FCV-110A	BORIC ACID BLENDER ACIC INPUT FLOW VALVE	YES	NO	YES	NO	I		B	x				

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								Inside/Outside (I/O)	High Temp / Humidity (T/H)	Borated System								
2	07 - Fluid-Operated Valves	FCV-110B	FCV-110B	BORIC ACID BLENDER OUT TO CHG PMP SUCTION CTRL VALVE	YES	NO	YES	NO		I		B	x					
2	07 - Fluid-Operated Valves	FCV-111A	FCV-111A	PRIMARY WATER MAKEUP VALVE	YES	NO	YES	NO		I			x					
2	07 - Fluid-Operated Valves	FCV-111B	FCV-111B	BLENDER FLOW TO VCT CTRL VALVE	YES	NO	YES	NO		I		B	x					
2	07 - Fluid-Operated Valves	FCV-1121	FCV-1121	21AFP RECIRC LINE CTRL VALVE	YES	NO	YES	NO		I							x	
2	07 - Fluid-Operated Valves	FCV-1123-VLV	FCV-1123	23AFP RECIRC LINE CTRL VALVE	YES	NO	YES	NO		I							x	
2	07 - Fluid-Operated Valves	FCV-1176	FCV-1176	JACKET WATER COOLER RET FLOW CTRL VALVE	YES	NO	YES	NO		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	FCV-1176A	FCV-1176A	JACKET WATER COOLER RET FLOW CTRL VALVE	YES	NO	YES	NO		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	FCV-405A-VLV	FCV-405A	AUX FEED TO 22 SG FLOW CTRL VALVE	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-405B-VLV	FCV-405B	AUX FEED TO 21 SG FLOW CTRL VALVE	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-405C-VLV	FCV-405C	AUX FEED TO 23 SG FLOW CTRL VALVE	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-405D-VLV	FCV-405D	AUX FEED TO 24 SG FLOW CTRL VALVE	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-406A-VLV	FCV-406A	AFW CONTROL VALVE TO NO 21 SG	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-406B-VLV	FCV-406B	AFW CONTROL VALVE TO NO 22 SG	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-406C-VLV	FCV-406C	AFW CONTROL VALVE TO NO 23 SG	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	FCV-406D-VLV	FCV-406D	AFW CONTROL VALVE TO NO 24 SG	YES	NO	YES	YES		I							x	
2	07 - Fluid-Operated Valves	HCV-1118	HCV-1118	22 AFWP PUMP SPEED CONTROL VALVE	YES	NO	YES	NO		I							x	
2	07 - Fluid-Operated Valves	HCV-123	HCV-123	EXCESS LETDOWN HX OUTFLOW CTRL VALVE	YES	NO	YES	NO		I	T/H	B			x			
2	07 - Fluid-Operated Valves	HCV-142	HCV-142	CHARGING FLOW TO REGEN HX FLOW CTRL VALVE	YES	NO	YES	NO		I		B	x		x			
2	07 - Fluid-Operated Valves	IA-1	IA-1	22IA COMPRESSOR DISCH PIPING RELIEF VALVE	YES	NO	YES	YES		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	IA-1-1	IA-1-1	21IA COMPRESSOR DISCH PIPING RELIEF VALVE	YES	NO	YES	YES		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	IA-571	IA571	INSTRUMENT AIR RECEIVER RELIEF VALVE	YES	NO	YES	YES		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	LC-1207S	LC-1207S	LEVEL CONTROLLER	YES	NO	YES	NO		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	LC-1208S	LC-1208S	LEVEL CONTROLLER	YES	NO	YES	NO		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	LC-1209S	LC-1209S	LEVEL CONTROLLER	YES	NO	YES	NO		I			x	x	x	x	x	x
2	07 - Fluid-Operated Valves	LCV-112B	LCV-112B	RWST TO CHARGING PUMP SUCTION VALVE	YES	NO	YES	YES		I		B	x		x			
2	07 - Fluid-Operated Valves	LCV-1158	LCV-1158	CONDENSATE STORAGE TANK LEVEL CONTROL VALVE	YES	NO	YES	NO		I							x	
2	07 - Fluid-Operated Valves	LCV-459	LCV-459	LETDOWN CTRL VALVE	YES	NO	YES	NO		I		B			x			
2	07 - Fluid-Operated Valves	MS-1-21	MS-1-21	21 SG MSV	YES	NO	YES	NO		I	T			x				
2	07 - Fluid-Operated Valves	MS-1-22	MS-1-22	22 SG MSV	YES	NO	YES	NO		I	T			x				
2	07 - Fluid-Operated Valves	MS-1-23	MS-1-23	23 SG MSV	YES	NO	YES	NO		I	T			x				
2	07 - Fluid-Operated Valves	MS-1-24	MS-1-24	24 SG MSV	YES	NO	YES	NO		I	T			x				
2	07 - Fluid-Operated Valves	MS-45A	MS-45A	STEAM GEN 21 SAFETY RELIEF VALVE	YES	NO	YES	NO		I	T			x				
2	07 - Fluid-Operated Valves	MS-45B	MS-45B	STEAM GEN 22 SAFETY RELIEF VALVE	YES	NO	YES	NO		I	T			x				
2	07 - Fluid-Operated Valves	MS-45C	MS-45C	STEAM GEN 23 SAFETY RELIEF VALVE	YES	NO	YES	NO		I	T			x				

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										Inside/Outside (I/O)	High Temp / Humidity (T/H)	Bolted System						
2	07 - Fluid-Operated Valves	MS-45D	MS-45D	STEAM GEN 24 SAFETY RELIEF VALVE	YES	NO	YES	YES			I	T			x			
2	07 - Fluid-Operated Valves	MS-46A	MS-46A	STEAM GEN 21 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-46B	MS-46B	STEAM GEN 22 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-46C	MS-46C	STEAM GEN 23 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-46D	MS-46D	STEAM GEN 24 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-47A	MS-47A	STEAM GEN 21 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-47B	MS-47B	STEAM GEN 22 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-47C	MS-47C	STEAM GEN 23 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-47D	MS-47D	STEAM GEN 24 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-48A	MS-48A	STEAM GEN 21 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-48B	MS-48B	STEAM GEN 22 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-48C	MS-48C	STEAM GEN 23 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-48D	MS-48D	STEAM GEN 24 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-49A	MS-49A	STEAM GEN 21 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-49B	MS-49B	STEAM GEN 22 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-49C	MS-49C	STEAM GEN 23 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	MS-49D	MS-49D	STEAM GEN 24 SAFETY RELIEF VALVE	YES	NO	YES	NO			I	T			x			
2	07 - Fluid-Operated Valves	PCV-1134	PCV-1134	ATM STM REL VALVE 21 SG	YES	NO	YES	NO			I	T			x		x	
2	07 - Fluid-Operated Valves	PCV-1135-VLV	PCV-1135	ATM STM REL VALVE 22 SG	YES	NO	YES	NO			I	T			x		x	
2	07 - Fluid-Operated Valves	PCV-1136-VLV	PCV-1136	ATM STM REL VALVE 23 SG	YES	NO	YES	NO			I	T			x		x	
2	07 - Fluid-Operated Valves	PCV-1137-VLV	PCV-1137	ATM STM REL VALVE 24 SG	YES	NO	YES	NO			I	T			x		x	
2	07 - Fluid-Operated Valves	PCV-1139	PCV-1139	AUX FWP TURB STM SUPP PRESS REDUCING VALVE	YES	NO	YES	YES			I						x	
2	07 - Fluid-Operated Valves	PCV-1213-VLV	PCV-1213	CRTL VALVE TO REGULATE PRESSURE ON #22 ABFWP BEARING COOLING WATER	YES	NO	YES	YES			I							x
2	07 - Fluid-Operated Valves	PCV-1214-VLV	PCV-1214	S.G. BLOWDOWN ISO VALVE 21 SG	YES	NO	YES	NO			I	T						x
2	07 - Fluid-Operated Valves	PCV-1215-VLV	PCV-1215	S.G. BLOWDOWN ISO VALVE 22 SG	YES	NO	YES	NO			I	T						x
2	07 - Fluid-Operated Valves	PCV-1216-VLV	PCV-1216	S.G. BLOWDOWN ISO VALVE 23 SG	YES	NO	YES	NO			I	T						x
2	07 - Fluid-Operated Valves	PCV-1217-VLV	PCV-1217	S.G. BLOWDOWN ISO VALVE 24 SG	YES	NO	YES	NO			I	T						x
2	07 - Fluid-Operated Valves	PCV-1228-VLV	PCV-1228	IA SUPPLY CONT BLDG INSTR AIR HEADER	YES	NO	YES	NO			I			x	x	x	x	x
2	07 - Fluid-Operated Valves	PCV-1276	PCV-1276	N2 BACKUP TO AFW CONTROL VALVES	YES	NO	YES	NO			I						x	
2	07 - Fluid-Operated Valves	PCV-1310A	PCV-1310A	AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE	YES	NO	YES	NO			I						x	
2	07 - Fluid-Operated Valves	PCV-1310B	PCV-1310B	AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE	YES	NO	YES	NO			I						x	
2	07 - Fluid-Operated Valves	PCV-135	PCV-135	NON-REGEN HX OUT FLOW	YES	NO	YES	NO			I		B			x		
2	07 - Fluid-Operated Valves	PCV-455C	PCV-455C	PRESSURIZER PORV	YES	NO	YES	YES			I	T/H			x			
2	07 - Fluid-Operated Valves	PCV-456	PCV-456	PRESSURIZER PORV	YES	NO	YES	YES			I	T/H			x			

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions				
					Seismic?	Undergo Regular Configuration Inspections	Maintains at least one of the 5 Safety Functions	Replaced	PEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal
								Inside/Outside (I/O)	High Temp / Humidity (T/H)	Borated System						
2	07 - Fluid-Operated Valves	PCV-464	PCV-464	PRESSURIZER SAFETY RELIEF VALVE	YES	NO	YES	YES	I	T/H			x			
2	07 - Fluid-Operated Valves	PCV-466	PCV-466	PRESSURIZER SAFETY RELIEF VALVE	YES	NO	YES	YES	I	T/H			x			
2	07 - Fluid-Operated Valves	PCV-468	PCV-468	PRESSURIZER SAFETY RELIEF VALVE	YES	NO	YES	YES	I	T/H			x			
2	07 - Fluid-Operated Valves	PRV-3100	PRV-3100	N2 TO PORV 455C REG VALVE	YES	NO	YES	NO	I	T/H			x			
2	07 - Fluid-Operated Valves	PRV-3101	PRV-3101	N2 TO PORV 456 REG VALVE	YES	NO	YES	NO	I	T/H			x			
2	07 - Fluid-Operated Valves	TCV-1103	TCV-1103	SW RET FROM CFVCU TEMP CTRL VALVE	YES	NO	YES	YES	I						x	
2	07 - Fluid-Operated Valves	TCV-1104	TCV-1104	FAN COOLING UNITS RTN BYPASS VALVE	YES	NO	YES	YES	I						x	
2	07 - Fluid-Operated Valves	TCV-1105	TCV-1105	FAN COOLING UNITS RTN BYPASS VALVE	YES	NO	YES	NO	I						x	
2	07 - Fluid-Operated Valves	TCV-1113	TCV-1113	INST AIR CC HX SW OUTLET TCV	YES	NO	YES	NO	I			x	x	x	x	
2	08A - Motor-Operated Valves	250A-VLV	0250A	21 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO	I		B				x	
2	08A - Motor-Operated Valves	250B-VLV	0250B	22 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO	I		B				x	
2	08A - Motor-Operated Valves	250C-VLV	0250C	23 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO	I		B				x	
2	08A - Motor-Operated Valves	250D-VLV	0250D	24 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO	I		B				x	
2	08A - Motor-Operated Valves	745A	0745A	RHR HX 22 INLET ISO VALVE	YES	NO	YES	NO	I		B		x	x		
2	08A - Motor-Operated Valves	745B	0745B	RHR HX 22 INLET ISO VALVE	YES	NO	YES	NO	I	T/H	B		x	x		
2	08A - Motor-Operated Valves	822A-VLV	0822A	RHR HX 22 ISO VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	08A - Motor-Operated Valves	822B-VLV	0822B	RHR HX 21 ISO VALVE	YES	NO	YES	NO	I	T/H	B			x		
2	08A - Motor-Operated Valves	888A	0888A	RHR HX 21 TO SI PUMPS SUCTION VALVE	YES	NO	YES	NO	I		B		x	x		
2	08A - Motor-Operated Valves	888B	0888B	RHR HX 21 TO SI PUMPS SUCTION VALVE	YES	NO	YES	NO	I		B		x	x		
2	08A - Motor-Operated Valves	889A-VLV	0889A	CTMT SPRAY HEADER ISO VALVE	YES	NO	YES	NO	I	T/H	B				x	
2	08A - Motor-Operated Valves	889B-VLV	0889B	CTMT SPRAY HEADER ISO VALVE	YES	NO	YES	NO	I	T/H	B				x	
2	08A - Motor-Operated Valves	894A-VLV	0894A	NO. 21 ACCUM DISCHARGE VALVE	YES	NO	YES	NO	I	T/H	B		x			
2	08A - Motor-Operated Valves	894B-VLV	0894B	NO. 22 ACCUM DISCHARGE VALVE	YES	NO	YES	NO	I	T/H	B		x			
2	08A - Motor-Operated Valves	894C-VLV	0894C	NO. 23 ACCUM DISCHARGE VALVE	YES	NO	YES	NO	I	T/H	B		x			
2	08A - Motor-Operated Valves	894D-VLV	0894D	NO. 24 ACCUM DISCHARGE VALVE	YES	NO	YES	NO	I	T/H	B		x			
2	08A - Motor-Operated Valves	1802A	1802A	SIS RECIRC PUMP DISCHARGE VALVE	YES	NO	YES	NO	I	T/H	B		x	x		
2	08A - Motor-Operated Valves	1802B	1802B	SIS RECIRC PUMP DISCHARGE VALVE	YES	NO	YES	NO	I	T/H	B		x	x		
2	08A - Motor-Operated Valves	1810 VLV	1810-VLV	MOV RWST TO SIS PMP ISO VALVE	YES	NO	YES	NO	I	T/H	B		x			
2	08A - Motor-Operated Valves	1870	1870	RHR PUMP MINI FLOW TEST LINE VALVE	YES	NO	YES	NO	I	T/H	B		x	x	x	
2	08A - Motor-Operated Valves	205-VLV	205-VLV	CHARGING FLOW TO RCS ISO VALVE	YES	NO	YES	NO	I	T/H	B	x		x	x	
2	08A - Motor-Operated Valves	222-VLV	222-VLV	RCP SEAL WATER RETURN ISO VALVE	YES	NO	YES	YES	I	T/H	B				x	
2	08A - Motor-Operated Valves	226	226	CHARGING FLOW TO RCS CTMT ISO VALVE	YES	NO	YES	NO	I	T/H	B		x			
2	08A - Motor-Operated Valves	333-VLV	333	BORIC ACID FEED TO CHG PUMPS VALVE	YES	NO	YES	NO	I		B	x				
2	08A - Motor-Operated Valves	4925	4925	21 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO	I		B				x	
2	08A - Motor-Operated Valves	4926	4926	22 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO	I		B				x	

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic?	Undergoes Regular Configuration Inspections?	Operational Maintenance Sessions of the 5 Safety Functions	Isolated	IP/EE	Environment 2 None/Outside (I/O)	High Temp / Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
2	08A - Motor-Operated Valves	4927	4927	23 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO		I		B						x
2	08A - Motor-Operated Valves	4928	4928	24 RCP SEAL INJ LINE ISO VALVE	YES	NO	YES	NO		I		B						x
2	08A - Motor-Operated Valves	5153	5153	GROSS FAILED FUEL DETECTOR SAMPLE LINE ISO VALVE	YES	NO	YES	NO		I		B						x
2	08A - Motor-Operated Valves	5154	5154	GROSS FAILED FUEL DETECTOR SAMPLE LINE ISOLATION VALVE	YES	NO	YES	NO		I		B						x
2	08A - Motor-Operated Valves	535	535	PORV BLK VALVE 455C	YES	NO	YES	YES		I	T/H			x				
2	08A - Motor-Operated Valves	536	536	PORV BLK VALVE 456	YES	NO	YES	YES		I	T/H			x				
2	02A - Motor-Operated Valves	730	730	RHR SUCT LN ISO VALVE	YES	NO	YES	NO		I	T/H	B					x	
2	08A - Motor-Operated Valves	731-VLV	731	RHR SUCT LN ISO VALVE	YES	NO	YES	NO		I	T/H	B					x	
2	08A - Motor-Operated Valves	743-VLV	743	RHR PUMP MINI FLOW TEST LINE VALVE	YES	NO	YES	NO		I		B			x	x	x	
2	08A - Motor-Operated Valves	744	744	RHR PUMP DISCHARGE ISO VALVE	YES	NO	YES	NO		I		B			x	x	x	
2	08A - Motor-Operated Valves	746-VLV	746	#22 RRHX OUTLET ISO STOP VALVE	YES	NO	YES	NO		I	T/H	B			x	x		
2	08A - Motor-Operated Valves	747-VLV	747	#21 RRHX OUTLET ISO STOP VALVE	YES	NO	YES	NO		I	T/H	B			x	x		
2	08A - Motor-Operated Valves	769-VLV	769	CCW SUPP-RCP ISO	YES	NO	YES	NO		I								x
2	08A - Motor-Operated Valves	784-VLV	784	CCW RET FR RCP ISO VALVE	YES	NO	YES	NO		I								x
2	08A - Motor-Operated Valves	786	786	CCW RET FR RCP ISO VALVE	YES	NO	YES	NO		I								x
2	08A - Motor-Operated Valves	789	789	CCW RET FR RCP ISO VALVE	YES	NO	YES	NO		I								x
2	08A - Motor-Operated Valves	797-VLV	797	CCW SUPP-RCP ISO VALVE	YES	NO	YES	NO		I								x
2	08A - Motor-Operated Valves	882	882	RWST TO RHR PUMP SUCTION VALVE	YES	NO	YES	NO		I		B			x			
2	08A - Motor-Operated Valves	885B	885B	CONTAINMENT SUMP TO RHR SUCTION VALVE	YES	NO	YES	NO		I		B			x	x		
2	08A - Motor-Operated Valves	FCV-625-VLV	FCV-625	CCW RET FR RCPs ISO VALVE	YES	NO	YES	NO		I								x
2	08A - Motor-Operated Valves	HCV-638	HCV-638	#21 RHR HX OUTLET CTRL VALVE	YES	NO	YES	NO		I		B			x	x		
2	08A - Motor-Operated Valves	HCV-640	HCV-640	#22 RHR HX OUTLET CTRL VALVE	YES	NO	YES	NO		I		B			x	x		
2	08A - Motor-Operated Valves	LCV-112C	LCV-112C	VCT OUTLET ISO VALVE	YES	NO	YES	NO		I		B	x		x			
2	08A - Motor-Operated Valves	SWN-41-1A-VLV	SWN-41-1A	FCU-21 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-41-1B-VLV	SWN-41-1B	FCU-21 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-41-2A-VLV	SWN-41-2A	FCU-22 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-41-2B-VLV	SWN-41-2B	FCU-22 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-41-3A-VLV	SWN-41-3A	FCU-23 SW INLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-41-3B-VLV	SWN-41-3B	FCU-23 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-41-4A-VLV	SWN-41-4A	FCU-24 SW INLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-41-4B-VLV	SWN-41-4B	FCU-24 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-41-5A-VLV	SWN-41-5A	FCU-25 SW INLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-41-5B-VLV	SWN-41-5B	FCU-25 SW INLET ISO VALVE	YES	NO	YES	YES		I	H							x

UNIT	EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic?	Undergo Regular Configuration Inspections	Maintained (Last one of the 5 Safety Functions)	Replaced	P/EE	Environment?		Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
										Inside	High Temp./ Humidity (T/H)							
2	08A - Motor-Operated Valves	SWN-44-1A-VLV	SWN-44-1A	FCU-21 SERVICE WATER OUTLET ISOLATION VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-44-1B-VLV	SWN-44-1B	FCU-21 SW OUTLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-44-2A-VLV	SWN-44-2A	FCU-22 SW OUTLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-44-2B-VLV	SWN-44-2B	FCU-22 SW OUTLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-44-3A-VLV	SWN-44-3A	FCU-23 SW OUTLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-44-3B-VLV	SWN-44-3B	FCU-23 SW OUTLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-44-4A-VLV	SWN-44-4A	FCU-24 SW OUTLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-44-4B-VLV	SWN-44-4B	FCU-24 SW OUTLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-44-5A-VLV	SWN-44-5A	FCU-25 SW OUTLET ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-44-5B-VLV	SWN-44-5B	FCU-25 SW OUTLET ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-51-1A-VLV	SWN-51-1A	21 FCU OUTLET SAMPLE ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-51-2A-VLV	SWN-51-2A	22 FCU OUTLET SAMPLE ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-51-3A-VLV	SWN-51-3A	23 FCU OUTLET SAMPLE ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-51-4A-VLV	SWN-51-4A	24 FCU OUTLET SAMPLE ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-51-5A-VLV	SWN-51-5A	25 FCU OUTLET SAMPLE ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-1A-VLV	SWN-71-1A	FCU-21 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-1B-VLV	SWN-71-1B	FCU-21 MOTOR ISO VALVE	YES	NO	YES	YES		I	H							x
2	08A - Motor-Operated Valves	SWN-71-2A-VLV	SWN-71-2A	FCU-22 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-2B-VLV	SWN-71-2B	FCU-22 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-3A-VLV	SWN-71-3A	FCU-23 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-3B-VLV	SWN-71-3B	FCU-23 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-4A-VLV	SWN-71-4A	FCU-24 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-4B-VLV	SWN-71-4B	FCU-24 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-5A-VLV	SWN-71-5A	FCU-25 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08A - Motor-Operated Valves	SWN-71-5B-VLV	SWN-71-5B	FCU-25 MOTOR ISO VALVE	YES	NO	YES	NO		I	H							x
2	08B - Solenoid-Operated Valves	519	519	PRIMARY WATER MAKE-UP TO PRT VALVE	YES	NO	YES	NO		I								x
2	08B - Solenoid-Operated Valves	LCV-1207A	LCV-1207A	LEVEL CONTROL VALVE	YES	NO	YES	YES		I			x	x	x	x	x	x
2	08B - Solenoid-Operated Valves	LCV-1207B	LCV-1207B	FUEL OIL DAY TANK LEVEL 21	YES	NO	YES	YES		I			x	x	x	x	x	x
2	08B - Solenoid-Operated Valves	LCV-1208A	LCV-1208A	LEVEL CONTROL VALVE	YES	NO	YES	YES		I			x	x	x	x	x	x
2	08B - Solenoid-Operated Valves	LCV-1208B	LCV-1208B	FUEL OIL DAY TANK LEVEL 22	YES	NO	YES	YES		I			x	x	x	x	x	x
2	08B - Solenoid-Operated Valves	LCV-1209A	LCV-1209A	LEVEL CONTROL VALVE	YES	NO	YES	YES		I			x	x	x	x	x	x
2	08B - Solenoid-Operated Valves	LCV-1209B	LCV-1209B	FUEL OIL DAY TANK LEVEL 23	YES	NO	YES	YES		I			x	x	x	x	x	x

UNIT	ASSE EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains all lessons of the Safety Functions	Replaced	IEEE	Installed Outside (I/O)	Environment? High Temp / Humidity (T/H)	Bonded System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	08B - Solenoid-Operated Valves	SOV-1230	SOV-1230	SG 21 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1231	SOV-1231	SG 21 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1232	SOV-1232	SG 21 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1233	SOV-1233	SG 21 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1234	SOV-1234	SG 22 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1235	SOV-1235	SG 22 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1236	SOV-1236	SG 22 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1237	SOV-1237	SG 22 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1238	SOV-1238	SG 23 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1239	SOV-1239	SG 23 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1240	SOV-1240	SG 23 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1241	SOV-1241	SG 23 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1242	SOV-1242	SG 24 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1243	SOV-1243	SG 24 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1244	SOV-1244	SG 24 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1245	SOV-1245	SG 24 MSIV SOV	YES	NO	YES	NO		I	T			x			
2	08B - Solenoid-Operated Valves	SOV-1258	SOV-1258	CST LEVEL CONTROL SOV	YES	NO	YES	NO		I						x	
2	08B - Solenoid-Operated Valves	SOV-1276	SOV-1276	SOLENOID VALVE	YES	NO	YES	YES		I						x	
2	08B - Solenoid-Operated Valves	SOV-1276A	SOV-1276A	SOLENOID VALVE	YES	NO	YES	YES		I						x	
2	08B - Solenoid-Operated Valves	SOV-1310	SOV-1310	AUX FWP TURB STEAM SUPP SOV	YES	NO	YES	NO		I						x	
2	08B - Solenoid-Operated Valves	SOV-1311	SOV-1311	AUX FWP TURB STEAM SUPP SOV	YES	NO	YES	NO		I						x	
2	08B - Solenoid-Operated Valves	SOV-200A	SOV-200A	200A INSTRUMENT AIR SUPPLY SOLENOID VALVE	YES	NO	YES	YES		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-200B	SOV-200B	200B INSTRUMENT AIR SUPPLY SOLENOID VALVE	YES	NO	YES	NO		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-200C	SOV-200C	200C INSTRUMENT AIR SUPPLY SOLENOID	YES	NO	YES	YES		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-201	SOV-201	SOLENOID VALVE	YES	NO	YES	YES		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-202	SOV-202	SOLENOID VALVE	YES	NO	YES	YES		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-204A	SOV-204A	SOLENOID VALVE	YES	NO	YES	YES		I	T/H		x		x		
2	08B - Solenoid-Operated Valves	SOV-204B	SOV-204B	SOLENOID VALVE	YES	NO	YES	YES		I	T/H		x		x		
2	08B - Solenoid-Operated Valves	SOV-212	SOV-212	SOLENOID VALVE, PRESSURIZER AUX SPRAY LINE	YES	NO	YES	NO		I	T/H			x			
2	08B - Solenoid-Operated Valves	SOV-213	SOV-213	SOLENOID VALVE, INITIATES EXCESS LETDOWN FLOW	YES	NO	YES	YES		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-459	SOV-459	SOLENOID VALVE, BLOCK LETDOWN FROM RCS ON LOW PRESSURIZER LEVEL	YES	NO	YES	NO		I	T/H				x		
2	08B - Solenoid-Operated Valves	SOV-791	SOV-791	EXCESS LETDOWN Hx COOLING WATER ISOLATION SOLENOID VALVE NO 791	YES	NO	YES	NO		I	T/H						x
2	08B - Solenoid-Operated Valves	SOV-793	SOV-793	CVCS EXCESS LETDOWN Hx INSTRUMENT AIR SUPPLY SOLENOID VALVE 793	YES	NO	YES	NO		I	T/H						x
2	08B - Solenoid-Operated Valves	SOV-796	SOV-796	EXCESS LETDOWN Hx COOLING WATER ISOLATION SOLENOID VALVE NO 796	YES	NO	YES	NO		I	T/H						x

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID#	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintain all essential functions of the Safety Functions	Replaced	PEEE	Environment? Inside/Outside (I/O) High Temp / Humidity (T/H) Borated System			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	14 - Distribution Panels	EDD-2	EDD2	TRANSFER SWITCH	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	EDD-3	EDD3	TRANSFER SWITCH	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	EDD-4	EDD4	TRANSFER SWITCH	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	IBUS23A	EPE3	118 VAC INSTRUMENT BUS #23A	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels		EPF6	120 VAC DISTRIBUTION PANEL #2	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	IBUS24	PE6	118 VAC INSTR BUS 24	YES	NO	YES	YES		I			X	X	X	X	X
2	14 - Distribution Panels	IBUS23	PE7	118 VAC INSTR BUS 23	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	IBUS21	PE8	118 VAC INSTR BUS 21	YES	NO	YES	YES		I			X	X	X	X	X
2	14 - Distribution Panels	IBUS22	PE9	118 VAC INSTR BUS 22	YES	NO	YES	YES		I			X	X	X	X	X
2	14 - Distribution Panels		PNL PD-2	PRESSURIZER HEATER BACKUP GROUP #23 DISTRIBUTION PANEL	YES	NO	YES	NO		I			X	X			
2	14 - Distribution Panels		PNL PD-3	PRESSURIZER HEATER BACKUP GROUP #21 DISTRIBUTION PANEL	YES	NO	YES	NO		I			X	X			
2	14 - Distribution Panels		PNL PD-4	PRESSURIZER HEATER BACKUP GROUP #22 DISTRIBUTION PANEL	YES	NO	YES	NO		I			X	X			
2	15 - Batteries on Racks	BATT21	BATT21	BATTERY BANK	YES	NO	YES	NO		I			X	X	X	X	X
2	15 - Batteries on Racks	BATT22	BATT22	BATTERY BANK	YES	NO	YES	YES		I			X	X	X	X	X
2	15 - Batteries on Racks	BATT23	BATT23	BATTERY BANK	YES	NO	YES	NO		I			X	X	X	X	X
2	15 - Batteries on Racks	BATT24	BATT24	BATTERY BANK	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	EGA1	EGA1	10 KVA STATIC INVERTER #21	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	EGA2	EGA2	10 KVA STATIC INVERTER #22	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	BATTCHG24	EGA3	BATTERY CHARGER 24	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	EGA4	EGA4	10 KVA STATIC INVERTER #24	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	BATTCHG23	EGA7	BATTERY CHARGER 23	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	EGA8	EGA8	10 KVA STATIC INVERTER #23	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	BATTCHG21	M19	BATTERY CHARGER 21	YES	NO	YES	NO		I			X	X	X	X	X
2	16 - Battery Chargers & Invertors	BATTCHG22	MN3	BATTERY CHARGER 22	YES	NO	YES	NO		I			X	X	X	X	X
2	17 - Engine-Generators	22EDG-ENG	0022EDG	DIESEL GENERATOR NO. 22	YES	NO	YES	NO		I			X	X	X	X	X
2	17 - Engine-Generators	23EDG-ENG	0023EDG	DIESEL GENERATOR NO. 23	YES	NO	YES	NO		I			X	X	X	X	X
2	17 - Engine-Generators	21EDG-ENG	21EDG	DIESEL GENERATOR NO. 21	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks	IP2-VC-68-RACK 19	INST RK 19	INSTRUMENT RACK 19	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks	RK-20	INST RK 20	INSTRUMENT RACK 20	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks	IP2-VC-68-RACK 21	INST RK 21	INSTRUMENT RACK 21	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks		INST RK 24	INSTRUMENT RACK 24	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks	IP2-VC-68-RACK 4A	INST RK 4A	INSTRUMENT RACK 4A	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks	IP2-VC-68-RACK 4B	INST RK 4B	INSTRUMENT RACK 4B	YES	NO	YES	NO		I			X	X	X	X	X
2	18 - Instruments on Racks	IP2-AFB-18-RACK 5	INST RK 5	INSTRUMENT RACK 5	YES	NO	YES	NO		I			X	X	X	X	X

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains a List of Safety Functions	Replaced	PEEE	Inside/Outside (I/O)	Environment? High Temp Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	18 - Instruments on Racks		INST RK 9	INSTRUMENT RACK 9	YES	NO	YES	NO	I				x	x	x	x	x
2	18 - Instruments on Racks	IP2-EDGB-72-DB6	PNL EDGA	EDG AUXILIARIES CONTROL PANEL	YES	NO	YES	NO	I				x	x	x	x	x
2	18 - Instruments on Racks	IP2-EDGB-72-DB6	RACK *ENGAUXSR	ENGINE AUXILIARIES STARTER RACK	YES	NO	YES	NO	I				x	x	x	x	x
2	18 - Instruments on Racks	SOV-1139-1	SOV-1139-1	SOLENOID VALVE	YES	NO	YES	YES	I							x	
2	18 - Instruments on Racks	SOV-1139-2	SOV-1139-2	SOLENOID VALVE	YES	NO	YES	YES	I							x	
2	18 - Instruments on Racks	SOV-1139-3	SOV-1139-3	SOLENOID VALVE	YES	NO	YES	YES	I							x	
2	18 - Instruments on Racks	SOV-1139-4	SOV-1139-4	SOLENOID VALVE	YES	NO	YES	YES	I							x	
2	18 - Instruments on Racks	SOV-1139-5	SOV-1139-5	SOLENOID VALVE	YES	NO	YES	YES	I							x	
2	19 - Temperature Sensors	TE-411A	TE-411A	RCS Loop 21 DELTA T TEMP	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-411A/1	TE-411A/1	RCS LOOP 21 HOT LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-411B	TE-411B	RCS LOOP 21 COLD LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-412A	TE-412A	RCS LOOP 21 HOT LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-412B	TE-412B	RCS LOOP 21 COLD LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-413	TE-413	RCS LOOP 21 COLD LEG WIDE RANGE TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-421A	TE-421A	RCS LOOP 22 HOT LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-421B	TE-421B	RCS LOOP 22 COLD LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-422A	TE-422A	RCS LOOP 22 HOT LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-422A/1	TE-422A/1	RCS LOOP 22 HOT LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-422B	TE-422B	RCS LOOP 22 COLD LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-423	TE-423	RCS LOOP 22 COLD LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-431A	TE-431A	RCS Loop 23 DELTA T TEMP	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-431A/1	TE-431A/1	RCS LOOP 23 HOT LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-431B	TE-431B	RCS LOOP 23 COLD LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-432A	TE-432A	RCS LOOP 23 HOT LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-432B	TE-432B	RCS LOOP 23 COLD LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-433	TE-433	RCS LOOP 23 COLD LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-440A/1	TE-440A/1	RCS LOOP 24 HOT LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-441A	TE-441A	RCS LOOP 24 HOT LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-441B	TE-441B	RCS LOOP 24 COLD LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H	B	x					
2	19 - Temperature Sensors	TE-442A	TE-442A	RCS LOOP 24 HOT LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-442B	TE-442B	RCS LOOP 24 COLD LEG TEMP ELEMENT	YES	NO	YES	YES	I	T/H	B	x					
2	19 - Temperature Sensors	TE-443	TE-443	RCS LOOP 24 COLD LEG TEMP ELEMENT	YES	NO	YES	NO	I	T/H		x					
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-COR RACK A1	A1;RACK	REACTOR PROTECTION CH I INST LOGIC RACK	YES	NO	YES	NO	I				x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-COR RACK A10	A10;RACK	REACTOR PROTECTION CH II INST LOGIC RACK	YES	NO	YES	NO	I				x				

QNT	ASSET/EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains a list of the 5 Safety Functions	Replaced	PEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
										Inside/Outside (I/O)	High Temp / Humidity (T/H)	Bored System					
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A11	A11;RACK	REACTOR PROTECTION CH II INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A12	A12;RACK	REACTOR PROTECTION CH II INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A2	A2;RACK	REACTOR PROTECTION CH I INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A3	A3;RACK	REACTOR PROTECTION CH I INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A4	A4;RACK	REACTOR PROTECTION CH I INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A5	A5;RACK	CVCS INST LOGIC RACK	YES	NO	YES	NO		I			x		x		
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A6	A6;RACK	CVCS INST LOGIC RACK	YES	NO	YES	NO		I			x		x		
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A7	A7;RACK	INSTRUMENT LOGIC RACK	YES	NO	YES	NO		I			x		x		
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A8	A8;RACK	INSTRUMENT LOGIC RACK	YES	NO	YES	NO		I			x		x		
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK A9	A9;RACK	REACTOR PROTECTION CH II INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B1	B1;RACK	REACTOR PROTECTION CH III INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B10	B10;RACK	REACTOR PROTECTION CH IV INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B2	B2;RACK	REACTOR PROTECTION CH III INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B3	B3;RACK	REACTOR PROTECTION CH III INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B6	B6;RACK	INSTRUMENT LOGIC RACK	YES	NO	YES	NO		I				x			
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B8	B8;RACK	INSTRUMENT LOGIC RACK	YES	NO	YES	NO		I				x			
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK B9	B9;RACK	REACTOR PROTECTION CH IV INST LOGIC RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK D10	D10;RACK	LOGIC RACK	YES	NO	YES	NO		I					x		
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK E1	E1;RACK	REACTOR CONTROL SYS INST RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK E7	E7;RACK	SAFEGUARDS RELAY CABINET	YES	NO	YES	NO		I					x		x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK E8	E8;RACK	SUPERVISORY CABINET	YES	NO	YES	NO		I					x		x
2	20 - Instr. & Control Panels & Cabinets	EPK1	EPK1	SW PMP #21 STRAINER CONT PNL	YES	NO	YES	NO		O	H						x
2	20 - Instr. & Control Panels & Cabinets	EPK2	EPK2	SW PMP #22 STRAINER CONT PNL	YES	NO	YES	NO		O	H						x
2	20 - Instr. & Control Panels & Cabinets	EPK3	EPK3	SW PMP #23 STRAINER CONT PNL	YES	NO	YES	NO		O	H						x
2	20 - Instr. & Control Panels & Cabinets	EPK5	EPK5	SW PMP #24 STRAINER CONT PNL	YES	NO	YES	NO		O	H						x
2	20 - Instr. & Control Panels & Cabinets	EPK6	EPK6	SW PMP #25 STRAINER CONT PNL	YES	NO	YES	NO		O	H						x
2	20 - Instr. & Control Panels & Cabinets	EPK7	EPK7	SW PMP #26 STRAINER CONT PNL	YES	NO	YES	NO		O	H						x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK F1	F1;RACK	REACTOR CONTROL SYS INST RACK	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK F7	F7;RACK	SUPERVISORY CABINET	YES	NO	YES	NO		I					x		x

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID#	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic?	Undergo Regular Configuration Inspections?	Maintains at least one of the 5 Safety Functions	Replaced?	IEEE	Inlet/Outside (I/O)	Environment? High Temp / Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK F8	F8:RACK	LOGIC RACK	YES	NO	YES	NO		I						x	x	
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK G1	G1:RACK	SAFEGUARDS RELAY CABINET	YES	NO	YES	NO		I						x	x	
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK G2	G2:RACK	SAFEGUARDS RELAY CABINET	YES	NO	YES	NO		I						x	x	
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK G3	G3:RACK	SAFEGUARDS RELAY CABINET	YES	NO	YES	NO		I						x	x	
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK G4	G4:RACK	SAFEGUARDS RELAY CABINET	YES	NO	YES	NO		I						x	x	
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK H1	H1:RACK	FOXBORO RACK H1 EJA2	YES	NO	YES	NO		I					x			
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK H2	H2:RACK	FOXBORO RACK H2 EJA3	YES	NO	YES	NO		I					x			
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK H3	H3:RACK	FOXBORO RACK H3 EJA4	YES	NO	YES	NO		I					x			
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK H4	H4:RACK	FOXBORO RACK H4: CHANNEL 1 TRAIN A: EJA5	YES	NO	YES	NO		I					x			
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK H5	H5:RACK	FOXBORO RACK H5: CHANNEL 2 TRAIN B: EJA6	YES	NO	YES	NO		I					x			
2	20 - Instr. & Control Panels & Cabinets		PNL *SYNCH	DIESEL GENERATOR OR SYNCHRONIZING PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL EPA10	PAB EXH & CB PRG FAN 21 CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	EPG6	PNL EPG6	REMOTE UNDERVOLTAGE RELAY CABINET. BUS 2A	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL EPG7	REMOTE UNDERVOLTAGE RELAY CABINET. BUS 5A	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	EPG8	PNL EPG8	REMOTE UNDERVOLTAGE RELAY CABINET. BUS 3A	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	EPG9	PNL EPG9	REMOTE UNDERVOLTAGE RELAY CABINET. BUS 6A	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL FAF	CCR PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL FB	PNL FB	FLIGHT PANEL FB	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL FBF	PNL FBF	FLIGHT PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL FBR	PNL FBR	FLIGHT CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL FC	PNL FC	FLIGHT PNL FC	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL FC	PNL FCF	FLIGHT PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL FDF	FLIGHT CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL MP3	CCR VENT CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL PHGRP	PRESSURIZER HEATER GROUND RELAY PANEL	YES	NO	YES	NO		I					x			
2	20 - Instr. & Control Panels & Cabinets		PNL PP9	EDG 21 CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL PQ1	EDG 22 CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL PQ2	EDG 23 CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	DPAN-PY3-1	PNL PY1	LOCAL CCR VENT CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL PY2	REMOTE CCR VENT CONTROL PANEL	YES	NO	YES	NO		I				x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL PY2A	PNL PY2A-PY2	PANEL PY2 EXTENSION	YES	NO	YES	NO		I				x	x	x	x	x

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintain at least one of the 5 Safety Functions	Replaced	IPEEE	Exposed Outside (I/O)	Environment? High Temp / Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL PY2B	PNL PY2B-PY2	PANEL PY2 EXTENSION	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SA	PNL SA	SUPERVISORY CONTROL PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SAR	PNL SAR	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SB-1	PNL SB-1	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SBR-1	PNL SB1F	ANNUNCIATOR PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SB-2	PNL SB-2	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SBR-2	PNL SB2F	ANNUNCIATOR PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SB-2	PNL SBF-2	SUPERVISORY CONTROL PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL SC	CONDENSOR & FEEDWATER SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SC	PNL SCF	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SF	PNL SF	SUPERVISORY CONTROL PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL SFF	SUPERVISORY CONTROL PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SG	PNL SG	SUPERVISORY CONTROL PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SG	PNL SGF	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SH	PNL SH	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SJ	PNL SJ	CCR PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SL	PNL SL	CCR PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR PNL SN	PNL SN	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets		PNL SNF	SUPERVISORY PANEL	YES	NO	YES	NO		I			x	x	x	x	x
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK C5	RACK C5	CCR RACK C-5	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK C6	RACK C6	CCR RACK C-6	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK C7	RACK C7	CCR RACK C-7	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK C8	RACK C8	CCR RACK C-8	YES	NO	YES	NO		I			x				
2	20 - Instr. & Control Panels & Cabinets		RVLIS CAB EPH8	RVLIS CABINET	YES	NO	YES	NO		I					x		
2	21 - Tanks and Heat Exchangers	21RHRSHX	0021RHRSHX	RHR PUMP 21 SEAL WATER HX	YES	NO	YES	NO		I						x	
2	21 - Tanks and Heat Exchangers	21RHX	0021RHX	REGEN HEAT EXCHANGER NO. 21	YES	NO	YES	NO		I					x		
2	21 - Tanks and Heat Exchangers	21RWST	0021RWST	21 REFUELING WATER STORAGE TANK	YES	NO	YES	NO		O		B	x		x		
2	21 - Tanks and Heat Exchangers	21VCT	0021VCT	VOLUME CONTROL TANK NO. 21	YES	NO	YES	NO		I		B	x		x		
2	21 - Tanks and Heat Exchangers	22CCHX	0022CCHX	CCW HEAT EXCH NO. 22	YES	NO	YES	NO		I						x	
2	21 - Tanks and Heat Exchangers	22CHPS	0022CHPS	CHARGING PUMP NO. 22 SUCTION STABILIZER/SEPARATOR	YES	NO	YES	NO		I		B	x		x		

UNIT	SSEP EQUIP CLASS	CURRENT EQUIPMENT ID	SSEP EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions				
					Seismic?	Undergo Regular Configuration Inspections	Maintains at least one of the 5 Safety Functions	Replaced	PEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal
								Inside/Outside (I/O)	High Temp./Humidity (T/H)	Borated System						
2	21 - Tanks and Heat Exchangers	22EDJET	0022EDJET	DIESEL GENERATOR NO. 22 JACKET WATER EXPANSION TANK	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	22EDSAT	0022EDSAT	START AIR TANK 22DG	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	22FODT	0022FODT	FUEL OIL DAY TANK NO. 22	YES	NO	YES	NO	O			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	22FOST	0022FOST	F.O. STORAGE TANK 22	YES	NO	YES	NO	O			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	22IACA	0022IACA	INST AIR COMP 22 AFTERCOOLER	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	22RRHX	0022RRHX	RHR HEAT EXCH NO. 22	YES	NO	YES	NO	I	T/H	B			x	x	
2	21 - Tanks and Heat Exchangers	22RHRSHX	0022RHRSHX	22 RHRP SEAL WATER HX	YES	NO	YES	NO	I					x	x	
2	21 - Tanks and Heat Exchangers	23CHPS	0023CHPS	CHARGING PUMP NO. 23 SUCTION STABILIZER/SEPARATOR	YES	NO	YES	NO	I			x		x		
2	21 - Tanks and Heat Exchangers	23EDJET	0023EDJET	DIESEL GENERATOR NO. 23 JACKET WATER EXPANSION TANK	YES	NO	YES	NO	I			x				
2	21 - Tanks and Heat Exchangers	23EDSAT	0023EDSAT	START AIR TANK 23DG	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	23FODT	0023FODT	FUEL OIL DAY TANK NO. 23	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	23FOST	0023FOST	F.O. STORAGE TANK 23	YES	NO	YES	NO	O			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	21BAT		BORIC ACID TANK	YES	NO	YES	NO	I			x				
2	21 - Tanks and Heat Exchangers	21CCHX	21CCHX	CCW HEAT EXCH NO 21	YES	NO	YES	NO	I						x	
2	21 - Tanks and Heat Exchangers	21CCST	21CCST	21 COMPONENT COOLING SURGE TANK	YES	NO	YES	YES	V-001	I						x
2	21 - Tanks and Heat Exchangers	21CHPS	21CHPS	CHARGING PUMP NO. 21 SUCTION STABILIZER/SEPARATOR	YES	NO	YES	NO	I			x		x		
2	21 - Tanks and Heat Exchangers	21EDJET	21EDJET	DIESEL GENERATOR NO. 21 JACKET WATER EXPANSION TANK	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	21EDSAT	21EDSAT	START AIR TANK 21DG	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	21ELHX	21ELHX	EXCESS LETDOWN HX NO. 21	YES	NO	YES	NO	I					x		
2	21 - Tanks and Heat Exchangers	21FODT	21FODT	F.O. DAY TANK NO. 21	YES	NO	YES	NO	I			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	21FOST	21FOST	F.O. STORAGE TANK 21	YES	NO	YES	NO	O			x	x	x	x	x
2	21 - Tanks and Heat Exchangers	21NRHX	21NRHX	NON REGEN HEAT EXCHANGER NO 21	YES	NO	YES	NO	I					x		
2	21 - Tanks and Heat Exchangers	PWST	21PWST	PRIM WATER STORAGE TANK	YES	NO	YES	NO	O					x		
2	21 - Tanks and Heat Exchangers	21RRHX	21RRHX	RHR HEAT EXCHANGER NO. 21	YES	NO	YES	NO	I					x	x	
2	21 - Tanks and Heat Exchangers	22BAT	22BAT	BORIC ACID TANK	YES	NO	YES	NO	I		B	x				
2	21 - Tanks and Heat Exchangers	APORVAU	APORVAU	N2 ACCUM FOR PCV455C	YES	NO	YES	REMOVE D	I	T/H				x		
2	21 - Tanks and Heat Exchangers	BPORVAU	BPORVAU	N2 ACCUM FOR PCV456	YES	NO	YES	REMOVE D	I	T/H				x		
2	21 - Tanks and Heat Exchangers	CST	CST	CONDENSATE STORAGE TANK	YES	NO	YES	NO	O							x
2	00 - Generic Input Form	EUHR-21	EUHR-21	ELECTRIC UNIT HEATER	YES	NO	NO	NO	I							
2	00 - Generic Input Form	EUHR-22	EUHR-22	ELECTRIC UNIT HEATER	YES	NO	NO	NO	I							
2	00 - Generic Input Form	EUHR-23	EUHR-23	ELECTRIC UNIT HEATER	YES	NO	NO	NO	I							
2	00 - Generic Input Form	EUHR-24	EUHR-24	ELECTRIC UNIT HEATER	YES	NO	NO	NO	I							
2	00 - Generic Input Form	EUHR-25	EUHR-25	ELECTRIC UNIT HEATER	YES	NO	NO	NO	I							
2	00 - Generic Input Form	EUHR-32	EUHR-32	ELECTRIC UNIT HEATER	YES	NO	NO	NO	I							

UNIT	ASSESS/EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains a Location of the 5 Safety Functions	Replaced?	PEEE	Exposed Outside (I/O)	Environment? High Temp / Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	00 - Generic Input Form	EUHR-33	EUHR-33	ELECTRIC UNIT HEATER	YES	NO	NO	NO		I							
2	00 - Generic Input Form	EUHR-34	EUHR-34	ELECTRIC UNIT HEATER	YES	NO	NO	NO		I							
2	00 - Generic Input Form	EUHR-35	EUHR-35	ELECTRIC UNIT HEATER	YES	NO	NO	NO		I							
2	00 - Generic Input Form	EUHR-36	EUHR-36	ELECTRIC UNIT HEATER	YES	NO	NO	NO		I							
2	00 - Generic Input Form	EUHR-37	EUHR-37	ELECTRIC UNIT HEATER	YES	NO	NO	NO		I							
2	00 - Generic Input Form		H2-21	HYDROGEN SUPPLY MANIFOLD #21	YES	NO	NO	YES		I							
2	00 - Generic Input Form		N2-XX	NITROGEN SUPPLY PACKAGE	YES	NO	NO	YES		I							
2	05 - Horizontal Pumps	SPBP	PSS-SBP	R.C. SAMPLE BOOSTER PUMP	YES	NO	NO	REMOVE D		I		B					
2	07 - Fluid-Operated Valves	261A	0261A	21 RCP SEAL WATER RET VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	261B	0261B	22 RCP SEAL WATER RET VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	261C	0261C	23 RCP SEAL WATER RET VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	261D	0261D	24 RCP SEAL WATER RET VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	553A	0553A	STAND PIPE MAKE-UP VALVE RCP 21	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	553B	0553B	STAND PIPE MAKE-UP VALVE RCP 22	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	553C	0553C	STAND PIPE MAKE-UP VALVE RCP 23	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	553D	0553D	STAND PIPE MAKE-UP VALVE RCP 24	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	783A	0783A	21 RCP RETURN RELIEF VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	783B	0783B	22 RCP RETURN RELIEF VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	783C	0783C	23 RCP RETURN RELIEF VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	783D	0783D	24 RCP RETURN RELIEF VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	819A	0819A	INLET RHR HX 22 RELIEF VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	819B	0819B	INLET RHR HX 21 RELIEF VALVE	YES	NO	NO	NO		I	T/H	B					
2	07 - Fluid-Operated Valves	821H	0821H	RETURN FROM RV SUPRTS RLF VALVE	YES	NO	NO	YES		I		B					
2	07 - Fluid-Operated Valves	1649	1649	N2 SUPPLY HEADER RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	1671	1671	H2 HEADER RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	1836	1836	RHR PURIFICATION LINE RELIEF VALVE	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	218	218	SEAL WTR RETURN RLF VALVE TO PRT	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	231	231	21 CHARGE PMP RLF VALVE TO VCT	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	234	234	22 CHARGE PMP RLF VALVE TO VCT	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	237	237	23 CHARGE PMP RLF VALVE TO VCT	YES	NO	NO	YES		I		B					
2	07 - Fluid-Operated Valves	246-VLV	246	RCP SEAL NO.1 BYPASS VALVE TO VCT	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	263	263	21 NON-REGEN HX RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	264	264	VCT RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	265	265	VCT GAS ANALYZER SAMPLE VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	268	268	VCT VENT ISO VALVE	YES	NO	NO	NO		I							

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains at least one of these Safety Functions	Replaced	PEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
								Inhale/Outside (Y/N)	High Temp / Humidity (T/H)	Borated System							
2	07 - Fluid-Operated Valves	4058	4058	INLET TO VCT RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	4105	4105	PCV-456 N2 SUPPLY RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	4106	4106	PCV-455C N2 SUPPLY RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	516-VLV	516	PRESSURIZER RELIEF TANK VENT VALVE	YES	NO	NO	NO		I	T/H						
2	07 - Fluid-Operated Valves	523	523	PRT DRAIN VALVE	YES	NO	NO	NO		I	T/H						
2	07 - Fluid-Operated Valves	5417	5417	R.C. BOOSTER PUMP DISCH RELIEF VALVE	YES	NO	NO	REMOVE D		I	T/H	B					
2	07 - Fluid-Operated Valves	5418	5418	R.C. BOOSTER PUMP SUCTION RELIEF VALVE	YES	NO	NO	REMOVE D		I	T/H	B					
2	07 - Fluid-Operated Valves	544	544	REACTOR VESSEL FLANGE LEAK-OFF CTRL VALVE	YES	NO	NO	NO		I	T/H						
2	07 - Fluid-Operated Valves	560	560	PRIMARY WATER MAKE-UP TO PRT	YES	NO	NO	YES		I	T/H						
2	07 - Fluid-Operated Valves	782	782	CCW RETURN FROM RCPs RELIEF VALVE	YES	NO	NO	NO		I	T/H						
2	07 - Fluid-Operated Valves	792	792	EXCESS LETDOWN HX RELIEF VALVE	YES	NO	NO	YES		I	T/H						
2	07 - Fluid-Operated Valves	802	802	SPENT FUEL PIT HX RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	807	807	SEAL WATER HX RETURN RELIEF VALVE	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	812	812	NON-REG HX RETURN RELIEF VALVE	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	835	835	SURGE TANK RELIEF	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	BFD-69	BFD-69	22 ABFWP BRG COOLING WATER RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	CC-56	CC-56	CC INLET TO AFTERCOOLER 21 RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	CC-56-1	CC-56-1	CC INLET TO AFTERCOOLER 22 RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	CT-35	CT-35	AFP 21 SUCTION LINE RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	CT-35-1	CT-35-1	AFP 22 SUCTION LINE RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	CT-35-2	CT-35-2	AFP 23 SUCTION LINE RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	DF-13	DF-13	DAY TANK NORM FILL RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	DF-14	DF-14	DAY TANK EMERGENCY FILL RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	DF-4	DF-4	21 FOST FUEL LINE RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	DF-4-1	DF-4-1	22 FOST FUEL LINE RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	DF-4-2	DF-4-2	23 FOST FUEL LINE RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	HCV-133	HCV-133	RHR PURIF LINE CONTROL VALVE	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	HCV-3003	HCV-3003	SEAL WTR RET FLT BYPASS VALVE	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	LCV-112A	LCV-112A	MAKE-UP TO VCT 3-WAY VALVE	YES	NO	NO	NO		I		B					
2	07 - Fluid-Operated Valves	MS-52	MS-52	AFWP 22 STEAM SUPPLY SAFETY RELIEF VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	PCV-1041	PCV-1041	H2 SUPPLY TO VCT SOUTH BANK PRESS CTRL VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	PCV-1042	PCV-1042	H2 SUPPLY TO VCT NORTH BANK PRESS CTRL VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	PCV-1043	PCV-1043	N2 SUPPLY TO VCT PRESS CTRL VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	PCV-1044	PCV-1044	N2 SUPPLY TO VCT PRESS CTRL VALVE	YES	NO	NO	NO		I							

UNIT	ASSET/EQUIP/CLASS	CURRENT EQUIPMENT ID	ASSET/EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4			Five Safety Functions						
					Seismic	Undergo Regular Configuration & Inspections	Maintains Essential Safety Functions	Replaced	PEEE	Environment? Inside/Outside (I/O)	High Temp/Humidity (T/H)	Boiled System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	07 - Fluid-Operated Valves	PCV-113A	PCV-113A	H2 SUPPLY TO VCT REG VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	PCV-114	PCV-114	N2 SUPPLY TO VCT REG VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	PCV-1284	PCV-1284	RELIEF VALVE N2 BACKUP TO AFW CONTROL VALVE	YES	NO	NO	NO		I							
2	07 - Fluid-Operated Valves	SWN-42-1	SWN-42-1	FCU-21 SW INLET RELIEF VALVE	YES	NO	NO	YES		I	H						
2	07 - Fluid-Operated Valves	SWN-42-2	SWN-42-2	FCU-22 SW INLET RELIEF VALVE	YES	NO	NO	YES		I	H						
2	07 - Fluid-Operated Valves	SWN-42-3	SWN-42-3	FCU-23 SW INLET RELIEF VALVE	YES	NO	NO	YES		I	H						
2	07 - Fluid-Operated Valves	SWN-42-4	SWN-42-4	FCU-24 SW INLET RELIEF VALVE	YES	NO	NO	YES		I	H						
2	07 - Fluid-Operated Valves	SWN-42-5	SWN-42-5	FCU-25 SW INLET RELIEF VALVE	YES	NO	NO	YES		I	H						
2	07 - Fluid-Operated Valves	SWN-63	SWN-63	DG-22 JW & LO CLRS CW INLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	SWN-63-1	SWN-63-1	DG-23 JW & LO CLRS CW INLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	SWN-63-2	SWN-63-2	DG-21 JW & LO CLRS CW INLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	SWN-81	SWN-81	CCW HX 22 SW OUTLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	SWN-81-1	SWN-81-1	CCW HX 21 SW OUTLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	SWN-86	SWN-86	21 IA COOLER SW INLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	SWN-86-1	SWN-86-1	22 IA COOLER SW INLET RELIEF VALVE	YES	NO	NO	YES		I							
2	07 - Fluid-Operated Valves	TCV-149	TCV-149	NON-REGEN HX FLOW OUTLET 3-WAY	YES	NO	NO	NO		I							
2	08A - Motor-Operated Valves	955A-VLV	0955A	BORON SAMPLE LINE ISO VALVE	YES	NO	NO	NO		I		B					
2	08A - Motor-Operated Valves	955B-VLV	0955B	BORON SAMPLE LINE ISO VALVE	YES	NO	NO	NO		I		B					
2	08A - Motor-Operated Valves	956E-VLV	0956E	BORON SAMPLE LINE ISO VALVE	YES	NO	NO	NO		I		B					
2	08A - Motor-Operated Valves	956F-VLV	0956F	BORON SAMPLE LINE ISO VALVE	YES	NO	NO	NO		I		B					
2	08A - Motor-Operated Valves	227	227	HCV-142 BYPASS CH FLOW TO RCS VALVE	YES	NO	NO	NO		I		B					
2	08A - Motor-Operated Valves	4394	4394	FLUSH WATER TO RCS SAMPLE HX CTRL VALVE	YES	NO	NO	NO		I							
2	08A - Motor-Operated Valves	4395	4395	FLUSH WATER TO RCS SAMPLE HX CTRL VALVE	YES	NO	NO	NO		I							
2	08A - Motor-Operated Valves	4396	4396	R.C. SAMPLE BOOSTER PUMP INLET ISO VALVE	YES	NO	NO	REMOVED		I	T/H	B					
2	08A - Motor-Operated Valves	4397	4397	R.C. SAMPLE BOOSTER PUMP OUTLET ISO VALVE	YES	NO	NO	REMOVED		I	T/H	B					
2	08A - Motor-Operated Valves	SWN-617	SWN-617	STRAINER BACKWASH ISO VALVE	YES	NO	NO	YES		I	H						
2	08A - Motor-Operated Valves	SWN-618	SWN-618	STRAINER BACKWASH ISO VALVE	YES	NO	NO	YES		I	H						
2	08A - Motor-Operated Valves	SWN-619	SWN-619	STRAINER BACKWASH ISO VALVE	YES	NO	NO	YES		I	H						
2	08A - Motor-Operated Valves	SWN-620	SWN-620	STRAINER BACKWASH ISO VALVE	YES	NO	NO	YES		I	H						
2	08A - Motor-Operated Valves	SWN-621	SWN-621	STRAINER BACKWASH ISO VALVE	YES	NO	NO	YES		I	H						
2	08A - Motor-Operated Valves	SWN-622	SWN-622	STRAINER BACKWASH ISO VALVE	YES	NO	NO	YES		I	H						
2	08B - Solenoid-Operated Valves	SOV-215	SOV-215	215 INSTRUMENT AIR SUPPLY SOLENOID	YES	NO	NO	NO		I							
2	08B - Solenoid-Operated Valves	SOV-268	SOV-268	SOLENOID VALVE	YES	NO	NO	YES		I							
2	08B - Solenoid-Operated Valves	SOV-3003	SOV-3003	SOLENOID VALVE	YES	NO	NO	YES		I							
2	08B - Solenoid-Operated Valves	SOV-310	SOV-310	SOLENOID VALVE	YES	NO	NO	NO		I							

UNIT	SSE/EQUIP CLASS	CURRENT EQUIPMENT ID	ASSET/EQUIPMENT SID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic	Undergo Regular Configuration Inspections	Maintains at least one of the 3 Safety Functions	Replaced	IP/EE	Environment? Inside/Outside (I/O) High Temp/Humidity (T/H)		Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
2	19 - Temperature Sensors		TE-7220	THERMOSTAT	YES	NO	NO	YES	I									
2	20 - Instr. & Control Panels & Cabinets		CRPI	CTRL ROD CLUSTER POS IND SYSTEM	YES	NO	NO	NO	I									
2	18 - Instruments on Racks	EDD-5	EDD5	EDG #21 CONTROL CIRCUIT TRANSFORMER SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDD-6	EDD6	EDG #22 CONTROL CIRCUIT TRANSFORMER SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDD-7	EDD7	EDG #23 CONTROL CIRCUIT TRANSFORMER SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDM1	EDM1	SERVICE WATER PUMP STRAINER DISCONNECT SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDM2	EDM2	SERVICE WATER PUMP STRAINER DISCONNECT SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDM3	EDM3	SERVICE WATER PUMP STRAINER DISCONNECT SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDM4	EDM4	SERVICE WATER PUMP STRAINER DISCONNECT SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDM5	EDM5	SERVICE WATER PUMP STRAINER DISCONNECT SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	EDM6	EDM6	SERVICE WATER PUMP STRAINER DISCONNECT SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	FC-6830-S	FC-6830-S	FLOW SWITCH	YES	NO	Note 1	YES	I									
2	18 - Instruments on Racks	FC-7145-1S	FC-7145-1S	FLOW SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	FC-7145-2S	FC-7145-2S	FLOW SWITCH	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	FIC-5919	FIC-5919		YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	FIT-111	FIT-111	FLOW INDICATOR TRANSMITTER	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	FIT-156A	FIT-156A	RCP 24 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-156B	FIT-156B	RCP 24 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-157A	FIT-157A	RCP 23 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-157B	FIT-157B	RCP 23 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-158A	FIT-158A	RCP 22 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-158B	FIT-158B	RCP 22 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-159A	FIT-159A	RCP 21 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FIT-159B	FIT-159B	RCP 21 SEAL LEAKOFF FLOW TRANSMITTER	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FM-111A	FM-111A	V/P SIGNAL TRANSDUCER	YES	NO	Note 1	NO	I									
2	18 - Instruments on Racks	FT-1200	FT-1200	AFW TO SG 21 FLOW TRANSMITTER	YES	NO	Note 1	YES	I									
2	18 - Instruments on Racks	FT-1201	FT-1201	AFW TO SG 22 FLOW TRANSMITTER	YES	NO	Note 1	YES	I									
2	18 - Instruments on Racks	FT-1202	FT-1202	AFW TO SG 23 FLOW TRANSMITTER	YES	NO	Note 1	YES	I									
2	18 - Instruments on Racks	FT-1203	FT-1203	AFW TO SG 24 FLOW TRANSMITTER	YES	NO	Note 1	YES	I									
2	18 - Instruments on Racks	FT-128	FT-128	CHG FLOW TO REGEN HX TRANSMITTER	YES	NO	Note 1	NO	I			B						
2	18 - Instruments on Racks	FT-134	FT-134	NON REGEN HX OUTLET LETDOWN FLOW TRANSMITTER	YES	NO	Note 1	YES	I			B						
2	18 - Instruments on Racks	FT-414	FT-414	RX COOLANT LOOP 1 FLOW TRANSMITTER CH I	YES	NO	Note 1	YES	I	T/H	B							
2	18 - Instruments on Racks	FT-415	FT-415	RX COOLANT LOOP 1 FLOW TRANSMITTER CH II	YES	NO	Note 1	YES	I	T/H	B							

UNIT	ASSEL/EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains at least one of the 5 Safety Functions	Replaced	PEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Debris Heat Removal	Containment
								Inside Outside (I/O)	High Temp./ Humidity (T/H)	Borated System							
2	18 - Instruments on Racks	FT-419A	FT-419A	SG 21 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-419B	FT-419B	SG 21 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-424	FT-424	RX COOLANT LOOP 2 FLOW TRANSMITTER CH I	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	FT-425	FT-425	RX COOLANT LOOP 2 FLOW TRANSMITTER CH II	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	FT-429A	FT-429A	SG 22 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-429B	FT-429B	SG 22 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-434	FT-434	RX COOLANT LOOP 3 FLOW TRANSMITTER CH I	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	FT-435	FT-435	RX COOLANT LOOP 3 FLOW TRANSMITTER CH II	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	FT-439A	FT-439A	SG 23 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-439B	FT-439B	SG 23 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-444	FT-444	RX COOLANT LOOP 4 FLOW TRANSMITTER CH I	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	FT-445	FT-445	RX COOLANT LOOP 4 FLOW TRANSMITTER CH II	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	FT-449A	FT-449A	SG 24 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-449B	FT-449B	SG 24 STEAM FLOW TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	FT-5919	FT-5919		YES	NO	Note 1	NO		I							
2	18 - Instruments on Racks	FT-601	FT-601	CC WATER FLOW TRANSMITTER	YES	NO	Note 1	YES		I							
2	18 - Instruments on Racks	FT-640	FT-640	RHR FLOW TRANSMITTER	YES	NO	Note 1	NO		I	T/H	B					
2	18 - Instruments on Racks	FT-946A	FT-946A	RHR TO RCS 24 COLD LEG FLOW TRANSMITTER, LOOP 4	YES	NO	Note 1	NO		I	T/H	B					
2	18 - Instruments on Racks	FT-946B	FT-946B	RHR TO RCS 23 COLD LEG FLOW TRANSMITTER, LOOP 3	YES	NO	Note 1	NO		I	T/H	B					
2	18 - Instruments on Racks	FT-946C	FT-946C	RHR TO RCS 22 COLD LEG FLOW TRANSMITTER, LOOP 2	YES	NO	Note 1	NO		I	T/H	B					
2	18 - Instruments on Racks	FT-946D	FT-946D	RHR TO RCS 21 COLD LEG FLOW TRANSMITTER, LOOP 1	YES	NO	Note 1	NO		I	T/H	B					
2	18 - Instruments on Racks	LC-112D	LC-112D	LEVEL CONTROLLER	YES	NO	Note 1	NO		I	T/H						
2	18 - Instruments on Racks	LT-112	LT-112	VCT LEVEL TRANSMITTER	YES	NO	Note 1	NO		I		B					
2	18 - Instruments on Racks	LT-112B	LT-112B	COND STORAGE TANK LEVEL TRANSMITTER	YES	NO	Note 1	NO		I							
2	18 - Instruments on Racks	LT-1128A	LT-1128A	COND STORAGE TANK LEVEL TRANSMITTER	YES	NO	Note 1	NO		I							
2	18 - Instruments on Racks	LT-1311	LT-1311	RX VESSEL LEVEL TRANSMITTER NARROW RANGE	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	LT-1312	LT-1312	RX VESSEL LEVEL TRANSMITTER WIDE RANGE	YES	NO	Note 1	YES		I	T/H	B					
2	18 - Instruments on Racks	LT-417A	LT-417A	SG 21 LEVEL TRANSMITTER	YES	NO	Note 1	NO		I	T/H						
2	18 - Instruments on Racks	LT-417D	LT-417D	SG 21 LEVEL TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	LT-427A	LT-427A	SG 22 LEVEL TRANSMITTER	YES	NO	Note 1	NO		I	T/H						
2	18 - Instruments on Racks	LT-427D	LT-427D	SG 22 LEVEL TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	LT-437A	LT-437A	SG 23 LEVEL TRANSMITTER	YES	NO	Note 1	NO		I	T/H						
2	18 - Instruments on Racks	LT-437D	LT-437D	SG 23 LEVEL TRANSMITTER	YES	NO	Note 1	YES		I	T/H						
2	18 - Instruments on Racks	LT-447A	LT-447A	SG 24 LEVEL TRANSMITTER	YES	NO	Note 1	NO		I	T/H						

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions				
					Seismic	Undergo Regular Configuration Inspections	Maintains all Locations of the Safety Functions	Replaced	IEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal
								Inside Outside (I/O)	High Temp/ Humidity (T/H)	Borated System						
2	18 - Instruments on Racks	LT-447D	LT-447D	SG 24 LEVEL TRANSMITTER	YES	NO	Note 1	YES	I	T/H						
2	18 - Instruments on Racks	LT-459	LT-459	PRESSURIZER LEVEL TRANSMITTER CH I	YES	NO	Note 1	NO	I	T/H						
2	18 - Instruments on Racks	LT-460	LT-460	PRESSURIZER LEVEL TRANSMITTER CH II	YES	NO	Note 1	NO	I	T/H						
2	18 - Instruments on Racks	LT-470	LT-470	PRT LEVEL TRANSMITTER	YES	NO	Note 1	NO	I	T/H						
2	18 - Instruments on Racks	LT-5751	LT-5751	RWST LEVEL TRANSMITTER	YES	NO	Note 1	NO	O							
2	18 - Instruments on Racks	LT-920	LT-920	RWST LEVEL TRANSMITTER	YES	NO	Note 1	NO	O							
2	18 - Instruments on Racks	PCV-473	PCV-473	N2 SUPPLY TO PRT	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PM-1134	PM-1134	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PM-1135	PM-1135	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PM-1136	PM-1136	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PM-1137	PM-1137	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-135	PM-135	#P PRESSURE CONVERTER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-405A	PM-405A	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PM-405B	PM-405B	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-405C	PM-405C	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-405D	PM-405D	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-406E	PM-406E	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-406F	PM-406F	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PM-406G	PM-406G	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PM-406H	PM-406H	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks		PNL #1	STEAM DUMP VALVE LOCAL PANEL #1	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks		PNL #2	STEAM DUMP VALVE LOCAL PANEL #2	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	LP-223	PNL #223	LIGHTING PANEL	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PRV-1139-1	PRV-1139-1	PRESSURE REGULATING VALVE	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PRV-1139-2	PRV-1139-2	PRESSURE REGULATING VALVE	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PRV-1139-3	PRV-1139-3	PRESSURE REGULATING VALVE	YES	NO	Note 1	YES	I							
2	18 - Instruments on Racks	PRV-1139-4	PRV-1139-4	PRESSURE REGULATING VALVE	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PRV-1139-5	PRV-1139-5	PRESSURE REGULATING VALVE	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PRV-5924	PRV-5924	PRESS REG TO CCR PANEL	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PT-1144	PT-1144	STATION AIR NUCL SERVICE PRESS TRANSMITTER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PT-1190	PT-1190	SWP 21-23 DISCH HDR (LINE 409) PRESS TRANSMITTER TO PH-1190R	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PT-1191	PT-1191	SVC WATER NUCL HEADER PRESS TRANSMITTER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PT-1192	PT-1192	IACC WATER PRESS TRANSMITTER	YES	NO	Note 1	NO	I							
2	18 - Instruments on Racks	PT-1260	PT-1260	AFW 21 DISCHARGE PRESS TRANSMITTER	YES	NO	Note 1	YES	I							

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID#	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintain at least one of the 3 Safety Functions	Replaced	IPEEE	Environment?		Bores System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
										Inside/Outside (I/O)	High Temp / Humidity (T/H)						
2	20 - Instr. & Control Panels & Cabinets	PI-1261	PI-1261	AFW 22 DISCHARGE PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-1262	PI-1262	AFW 23 DISCHARGE PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-135	PI-135	NON REGEN HX OUTLET LETDOWN PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-139	PI-139	VCT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-142B	PI-142B	CHG PP DISCHARGE PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-419A	PI-419A	SG 21 STEAM INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-419B	PI-419B	SG 21 STEAM INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-419C	PI-419C	SG 21 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-429A	PI-429A	SG 22 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-429B	PI-429B	SG 22 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-429C	PI-429C	SG 22 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-439A	PI-439A	SG 23 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-439B	PI-439B	SG 23 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-439C	PI-439C	SG 23 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-449A	PI-449A	SG 24 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-449B	PI-449B	SG 24 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-449C	PI-449C	SG 24 STEAM PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-455	PI-455	PRESSURIZER PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-456	PI-456	PRESSURIZER PRESS INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-472	PI-472	PRT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-5993	PI-5993	RHR PRESSURE INDICATOR	YES	NO	Note 1	YES		I							
2	20 - Instr. & Control Panels & Cabinets	PI-948A	PI-948A	CONTAINMENT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-948B	PI-948B	CONTAINMENT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-948C	PI-948C	CONTAINMENT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-949A	PI-949A	CONTAINMENT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-949B	PI-949B	CONTAINMENT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PI-949C	PI-949C	CONTAINMENT PRESSURE INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PM-406A	PM-406A	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PM-406B	PM-406B	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PM-406C	PM-406C	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	PM-406D	PM-406D	PRESSURE SIGNAL CONVERTER CONDITIONER	YES	NO	Note 1	NO		I							

UNIT	ASSET/EQUIP CLASS	CURRENT EQUIPMENT ID	ASSET/EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintain at least one of the 5 Safety Functions	Replaced	IPEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
										Inside/Outside (I/O)	High Temp / Humidity (T/H)	Borated System					
2	20 - Instr. & Control Panels & Cabinets	TI-126	TI-126	CHG FLOW TO RCS TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-130	TI-130	NON REGEN HX OUTLET LETDOWN TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-411A	TI-411A	RCS LOOP 21 DELTA T TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-412A	TI-412A	RCS LOOP 21 OVER TEMP DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-412B	TI-412B	RCS LOOP 21 OVER TEMP DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-412C	TI-412C	RCS LOOP 21 Tavg TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-421A	TI-421A	RCS LOOP 22 DELTA T TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-422A	TI-422A	RCS LOOP 22 OVER TEMP DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-422C	TI-422C	RCS LOOP 24 Tavg TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-431A	TI-431A	RCS LOOP 23 DELTA T TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-432A	TI-432A	RCS LOOP 23 OVER TEMP DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-432B	TI-432B	RCS LOOP 23 OVER PWR DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-432C	TI-432C	RCS LOOP 23 Tavg TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-441A	TI-441A	RCS LOOP 24 DELTA T TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-442A	TI-442A	RCS LOOP 24 OVER TEMP DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-442B	TI-442B	RCS LOOP 24 OVR PWR DELTA T SET POINT INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-442C	TI-442C	RCS LOOP 22 Tavg TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-453	TI-453	PRESSURIZER LIQUID TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-454	TI-454	PRESSURIZER STEAM TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TI-471	TI-471	PRT TEMP INDICATOR	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TIC-1203	TIC-1203	TEMP CONTROLLER CONTAINMENT AVERAGE TEMP	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TR-413	TR-413	LOOP 21 & 22 TEMP RECORDER	YES	NO	Note 1	YES		I							
2	20 - Instr. & Control Panels & Cabinets	TR-423	TR-423	TEMPERATURE RECORDER	YES	NO	Note 1	REMOVED		I							
2	20 - Instr. & Control Panels & Cabinets	TR-433	TR-433	LOOP 22 & 24 TEMP RECORDER	YES	NO	Note 1	YES		I							
2	20 - Instr. & Control Panels & Cabinets	TR-636	TR-636	TEMP RECORDER	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TT-1203	TT-1203	CONTAINMENT Tavg TEMP TRANSMITTER	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets	TT-1203A	TT-1203A	TOTALIZER	YES	NO	Note 1	NO		I							
2	20 - Instr. & Control Panels & Cabinets		VOLTMETER	BUS 2A,3A,5A,6A,VOLTMETER	YES	NO	Note 1	NO		I							
2	07 - Fluid-Operated Valves	TCV-130	TCV-130	TEMP CONTROL VALVE	YES	NO	YES	NO		I			X				
2	08B - Solenoid-Operated Valves		EP-1	EL. PNEUMATIC VALVE (CCRAC Damper A SOV)	YES	NO	YES	YES		I			X	X	X	X	X
2	08B - Solenoid-Operated Valves		EVY10	SOLENOID VALVE	YES	NO	YES	YES		I						X	

UNIT	SSEL/EQUIP CLASS	CURRENT EQUIPMENT ID	ASSEL/EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions						
					Seismic?	Undergo Regular Configuration Inspections	Maintains all Lessons of the 5 Safety Functions	Replaced	IEEE	Environment? Inlet/Outside (T/O) High Temp/Humidity (T/H)		Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment	
2	08B - Solenoid-Operated Valves		EVY11	SOLENOID VALVE	YES	NO	YES	YES		I							X	
2	08B - Solenoid-Operated Valves		EVY12	SOLENOID VALVE	YES	NO	YES	YES		I							X	
2	08B - Solenoid-Operated Valves		EVY13	SOLENOID VALVE	YES	NO	YES	YES		I							X	
2	08B - Solenoid-Operated Valves		EVY14	SOLENOID VALVE	YES	NO	YES	YES		I							X	
2	08B - Solenoid-Operated Valves		EVY15	SOLENOID VALVE	YES	NO	YES	YES		I							X	
2	08B - Solenoid-Operated Valves		EVY16	SOLENOID VALVE	YES	NO	YES	YES		I							X	
2	08B - Solenoid-Operated Valves	SOV-112A	SOV-112A	SOLENOID VALVE (CH_LCV-112A Inlet SOV)	YES	NO	NO	NO		I								
2	08B - Solenoid-Operated Valves	SOV-112B	SOV-112B	SOLENOID VALVE (CH_LCV-112B Inlet SOV)	YES	NO	YES	NO		I				X			X	
2	08B - Solenoid-Operated Valves	SOV-1170	SOV-1170	SOLENOID VALVE (SOV for TCV-1104)	YES	NO	YES	YES		I								X
2	08B - Solenoid-Operated Valves	SOV-1171	SOV-1171	SOLENOID VALVE (SOV for TCV-1105)	YES	NO	YES	NO		I								X
2	08B - Solenoid-Operated Valves	SOV-1177	SOV-1177	21 AFTERCOOLER INLET SOLENOID	YES	NO	YES	NO		I			X	X	X	X	X	X
2	08B - Solenoid-Operated Valves	SOV-1178	SOV-1178	22 AFTERCOOLER INLET SOLENOID	YES	NO	YES	NO		I			X	X	X	X	X	X
2	08B - Solenoid-Operated Valves	SOV-1314	SOV-1314	SOLENOID VALVE (21 SGBD Isolation)	YES	NO	YES	NO		I								X
2	08B - Solenoid-Operated Valves	SOV-1315	SOV-1315	SOLENOID VALVE (22 SGBD Isolation)	YES	NO	YES	YES		I								X
2	08B - Solenoid-Operated Valves	SOV-1316	SOV-1316	SOLENOID VALVE (23 SGBD Isolation)	YES	NO	YES	NO		I								X
2	08B - Solenoid-Operated Valves	SOV-1317	SOV-1317	SOLENOID VALVE (24 SGBD Isolation)	YES	NO	YES	YES		I								X
2	08B - Solenoid-Operated Valves	SOV-1321	SOV-1321	SOLENOID VALVE (21 AFWP Recirc)	YES	NO	YES	NO		I							X	
2	08B - Solenoid-Operated Valves	SOV-1323	SOV-1323	SOLENOID VALVE (23 AFWP Recirc)	YES	NO	YES	NO		I							X	
2	08B - Solenoid-Operated Valves	SOV-1428	SOV-1428	SOLENOID VALVE (IA valve PCV-1228)	YES	NO	YES	NO		I			X	X	X	X	X	X
2	08B - Solenoid-Operated Valves	SOV-149	SOV-149	SOLENOID VALVE (Non-Regen HX Outlet)	YES	NO	NO	YES		I								
2	09 - Fans	21CPEF-BLWR	21CPEF	CB PURGE & PAB EXH FAN	YES	NO	YES	NO		I			X	X	X	X	X	
2	09 - Fans	21CRDF	21CRDF	CONTROL ROD DRIVE VENT FAN 21	YES	NO	NO	YES		I								
2	09 - Fans	21ETEF-BLWR	21ETEF	EXHAUST FAN	YES	NO	YES	NO		I			X	X	X	X	X	X
2	09 - Fans	22CPEF-BLWR	22CPEF	CB PURGE & PAB EXH FAN	YES	NO	YES	NO		I			X	X	X	X	X	X
2	09 - Fans	22ETEF-BLWR	22ETEF	EXHAUST FAN	YES	NO	YES	NO		I			X	X	X	X	X	X
2	09 - Fans	CPFBD	CPFBD	BYPASS DAMPER	YES	NO	NO	NO		I								
2	09 - Fans	CPFFD	CPFFD	FACE DAMPER	YES	NO	NO	NO		I								
2	09 - Fans	WALL FAN 213	F-213	WALL FAN #213	YES	NO	YES	NO		I			X	X	X	X	X	X
2	09 - Fans	WALL FAN 215	F-215	WALL FAN #215	YES	NO	YES	NO		I			X	X	X	X	X	X
2	09 - Fans	WALL FAN 216	F-216	WALL FAN #216	YES	NO	YES	NO		I			X	X	X	X	X	X
2	09 - Fans	WALL FAN 318	F-318	EDG BLDG FAN	YES	NO	YES ¹	NO		I			X	X	X	X	X	X

¹ EDG wall fans support functions but not directly

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains a List of the Safety Functions	Replaced	IEEE	Inside/Outside (I/O)	High Temp/Humidity (T/H)	Borated System	Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
2	09 - Fans	WALL FAN 319	F-319	EDG BLDG FAN	YES	NO	YES	NO		I			X	X	X	X	X
2	09 - Fans	WALL FAN 320	F-320	EDG BLDG FAN	YES	NO	YES	NO		I			X	X	X	X	X
2	09 - Fans	WALL FAN 321	F-321	EDG BLDG FAN	YES	NO	YES	NO		I			X	X	X	X	X
2	09 - Fans	WALL FAN 322	F-322	EDG BLDG FAN	YES	NO	YES	NO		I			X	X	X	X	X
2	09 - Fans	WALL FAN 323	F-323	EDG BLDG FAN	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	11/IP1-S024	11/IP1-S024	FIRE DAMPER BANK	YES	NO	NO	NO		I							
2	10 - Air Handlers	WALL FAN 318-DM	318DMPR	PNEUM OPERATED ALU DAMPER	YES	NO	YES ²	NO		I			X	X	X	X	X
2	10 - Air Handlers	WALL FAN 319-DM	319DMPR	PNEUM OPERATED ALU DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	WALL FAN 320-DM	320DMPR	PNEUM OPERATED ALU DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	WALL FAN 321-DM	321DMPR	PNEUM OPERATED ALU DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	WALL FAN 322-DM	322DMPR	PNEUM OPERATED ALU DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	WALL FAN 323-DM	323DMPR	PNEUM OPERATED ALU DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	CCR-H1	CCR-H1	DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	CCR-H2	CCR-H2	DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	CCR-J1	CCR-J1	DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	CCR-J2	CCR-J2	DAMPER	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	FD-21	FD213	AUTOMATIC SHUTTER 213	YES	NO	YES	YES		I			X	X	X	X	X
2	10 - Air Handlers	FD-16	FD215	AUTOMATIC SHUTTER 215	YES	NO	YES	YES		I			X	X	X	X	X
2	10 - Air Handlers	FD-12	FD216	AUTOMATIC SHUTTER 216	YES	NO	YES	YES		I			X	X	X	X	X
2	10 - Air Handlers		IP1-S009	FIRE DAMPER BANK	YES	NO	NO	YES		I							
2	10 - Air Handlers	L-21	L-21	PNEUM OPERATED INTAKE LOUVER (EDG Bldg)	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers		L-214	COMB LOUVER/INTAKE RLF DAMPER	YES	NO	NO	YES		I							
2	10 - Air Handlers	L-22	L-22	PNEUM OPERATED INTAKE LOUVER (EDG Bldg)	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	L-23	L-23	PNEUM OPERATED INTAKE LOUVER (EDG Bldg)	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	L-24	L-24	PNEUM OPERATED INTAKE LOUVER (EDG Bldg)	YES	NO	YES	NO		I			X	X	X	X	X
2	10 - Air Handlers	L-25	L-25	PNEUM OPERATED INTAKE LOUVER (EDG Bldg)	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	DP-1	PNL EPA77	EDG VENT DISTRIBUTION PANEL 1	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	DP-2	PNL EPA78	EDG VENT DISTRIBUTION PANEL 2	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels	CVDP21	PNL EP228	CCR VENT DISTRIBUTION PANEL 21	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels		PNL EP229	CCR VENT DISTRIBUTION PANEL 22	YES	NO	YES	NO		I			X	X	X	X	X
2	14 - Distribution Panels		PNL JC1	FAN ROOM CONTROL PANEL	YES	NO	YES	NO		I			X	X	X	X	X
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR RACK 09	D9;RACK	LOGIC RACK	YES	NO	YES	NO		I			X				

² Same as EDG wall fans

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4			Five Safety Functions							
					Seismic?	Undergo Regular Configuration Inspections	Maintains all the Safety Functions	Replaced	IP/EE	Environment?		Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment		
									Inside Outside (I/O)	High Temp / Humidity (T/H)	Borated System							
2	20 - Instr. & Control Panels & Cabinets		EPF7	SOV CONTROL PANEL A (IVSWS Valves)	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		EPF8	SOV CONTROL PANEL B (IVSWS Valves)	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets	II-PBU1	PBU1	PRESSURIZER HEATER BACKUP GROUP 21	YES	NO	YES	NO		I							X	
2	20 - Instr. & Control Panels & Cabinets	II-PBU3	PBU3	PRESSURIZER HEATER BACKUP GROUP 23	YES	NO	YES	NO		I							X	
2	20 - Instr. & Control Panels & Cabinets		PNL *ARVPC	AIR RECEIVER / VENT PNEUMATIC CONTROL PANEL	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		PNL *GAS ANALZ	GAS ANALYZING PANEL	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR AAS PNL 2	PNL A#2	ASSESSMENT PANEL #2	YES	NO	YES	NO		I			X	X	X	X	X	X
2	20 - Instr. & Control Panels & Cabinets	IP2-CB-53-CCR AAS PNL 3	PNL A#3	ASSESSMENT PANEL #3	YES	NO	YES	NO		I			X	X	X	X	X	X
2	20 - Instr. & Control Panels & Cabinets		PNL EPH#	SAMPLING SYSTEM CONTROL PANEL #1	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		PNL EPI1	SAMPLING SYSTEM CONTROL PANEL #2	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		RACK *RLYBOX	FAN ROOM RELAY BOX	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		RACK BOX S92	RACK BOX S92	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		RACK BOX S93	RACK BOX S93	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		RACK BOX S94	RACK BOX S94	YES	NO	NO	NO		I								
2	20 - Instr. & Control Panels & Cabinets		RACK BOX S95	RACK BOX S95	YES	NO	NO	NO		I								
2	21 - Tanks and Heat Exchangers	21SWHX	0021SWHX	SEAL WATER HEAT EXCH NO. 21	YES	NO	NO	NO		I								
2	21 - Tanks and Heat Exchangers		0021XXD	21 INSTR AIR DRYER SKID	YES	NO	YES	YES		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers	22CWHX	0022CWHX	22 I/A CMPR CL COOLING WATER HX	YES	NO	YES	NO		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers		0022IAXXF	22 INST AIR PREFLTR/AFTERFLTR SKID	YES	NO	YES	YES		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers	22PLHX	0022PLHX	PRESSURIZER LIQUID SAMPLER HX 22	YES	NO	NO	NO		I		B						
2	21 - Tanks and Heat Exchangers	22PLHX	0022PLHX	PRESSURIZER LIQUID SAMPLER HX 22	YES	NO	NO	NO		I		B						
2	21 - Tanks and Heat Exchangers	21AT	21SISACC	21 SIS ACCUMULATOR	YES	NO	YES	NO		I	T,B	B		X		X	X	X
2	21 - Tanks and Heat Exchangers	22AT	22SISACC	22 SIS ACCUMULATOR	YES	NO	YES	NO		I	T,B	B		X		X	X	X
2	21 - Tanks and Heat Exchangers	22RCHX	0022RCHX	22 RC SAMPLE HX	YES	NO	NO	NO		I		B						
2	21 - Tanks and Heat Exchangers		0022XXD	22 INSTR AIR DRYER SKID	YES	NO	YES	YES		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers	21CWHX	21CWHX	21 I/A CMPR CL COOLING WATER HX	YES	NO	YES	NO		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers	21IACA	21IACA	INSTRUMENT AIR COMPRESSOR 21 AFTERCOOLER	YES	NO	YES	NO		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers	21IAR	21IAR	INSTRUMENT AIR RECEIVER	YES	NO	YES	NO		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers		21IAXXF	21 INST AIR PREFILTER/AFTERFILTER SKID	YES	NO	YES	YES		I			X	X	X	X	X	X
2	21 - Tanks and Heat Exchangers	21PLHX	21PLHX	PRESSURIZER LIQUID SAMPLER HX 21	YES	NO	NO	NO		I		B						

UNIT	SSEL EQUIP CLASS	CURRENT EQUIPMENT ID	SSEL EQUIPMENT ID	EQUIPMENT DESCRIPTION	SCREEN 1	SCREEN 2	SCREEN 3	SCREEN 4				Five Safety Functions					
					Seismic?	Undergo Regular Configuration Inspections	Maintains at least one of the Safety Functions	Replaced	IEEE	Environment?			Reactivity Control	Pressure Control	Inventory Control	Decay Heat Removal	Containment
								Inside/Outside (I/O)	High Temp./Humidity (T/H)	Borated System							
2	21 - Tanks and Heat Exchangers	21PRT	21PRT	PRESSURIZER RELIEF TANK	YES	NO	NO	NO		I	T/H	B					
2	21 - Tanks and Heat Exchangers	21PSHX	21PSHX	PRESSURIZER STEAM SAMPLE HX 21	YES	NO	NO	NO		I							
2	21 - Tanks and Heat Exchangers	21RCHX	21RCHX	21 REACTOR COOLANT SAMPLE HX	YES	NO	NO	NO		I		B					
2	21 - Tanks and Heat Exchangers	IACCET	IACCET	EXPANSION TANK	YES	NO	YES	NO		I			X	X	X	X	X

NOTE 1: These components are included with components previously identified under equipment classes 18 and 20.

Table 2 SWEL1 List

SWEL#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANCHOR	DRAWING
SWEL1-001	0022SWPS	NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER	SWSTR PIT	5'-9"	N.A.	Not Listed	Not Listed	0	O, H	N	SEE SWEL SHEET
SWEL1-002	0024SWPS	NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINER	SWSTR PIT	5'-9"	N.A.	Not Listed	Not Listed	0	O, H	N	SEE SWEL SHEET
SWEL1-003	22AT	22 SIS ACCUMULATOR	VC	46'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-004	MS-47A	MS-47A	AFB	77'-4"	N.A.	Not Listed	Not Listed	0	I, T	N	SEE SWEL SHEET
SWEL1-005	PCV-1276	N2 BACKUP TO AFW CONTROL VALVES	AFB	18'-6"	N.A.	Not Listed	Not Listed	0	I	Y	SEE SWEL SHEET
SWEL1-006	MCC-26A	480 VAC MCC	PAB	98'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-007	MCC-26AA	480 VAC MCC	PAB	98'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-008	MCC-26B	480 VAC MCC	PAB	98'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-009	MCC-26BB	480 VAC MCC	PAB	98'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-010	MCC-27A	480 VAC MCC	PAB	98'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-011	MCC-29	480 VAC MCC	CB	33'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-012	MCC-26C	480 VAC MCC	CB	33'-0"	N.A.	Not Listed	Not Listed	1	I	Y	SEE SWEL SHEET
SWEL1-013	BUS 5A	480V BUS 5A	CB	15'-0"	N.A.	Not Listed	Not Listed	2	I	N	SEE SWEL SHEET
SWEL1-014	BUS 6A	480V BUS 6A	CB	15'-0"	N.A.	Not Listed	Not Listed	2	I	N	SEE SWEL SHEET
SWEL1-015	52/RTA	REACTOR TRIP BREAKER A	CB	33'-0"	N.A.	Not Listed	Not Listed	2	I	N	SEE SWEL SHEET
SWEL1-016	SST5	STATION SERVICE TRANSFORMER 5A	CB	15'-0"	N.A.	Not Listed	Not Listed	4	I	N	SEE SWEL SHEET
SWEL1-017	BB8	PRESSURIZER HEATER TRANSFORMER	CB	15'-0"	N.A.	Not Listed	Not Listed	4	I	Y	SEE SWEL SHEET
SWEL1-018	BC2	480/120 VAC TRANSFORMER #22	CB	33'-0"	N.A.	Not Listed	Not Listed	4	I	N	SEE SWEL SHEET
SWEL1-019	BB9	PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMER	CB	15'-0"	N.A.	Not Listed	Not Listed	4	I	Y	SEE SWEL SHEET

SWEL#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANCHOR	DRAWING
SWEL1-020	0021SIP	SAFETY INJECTION PUMP 21	PAB	59'-0"	N.A.	Not Listed	Not Listed	5	I	Y	SEE SWEL SHEET
SWEL1-021	21AFP	AUX FEED PUMP NO. 21	AFB	18'-6"	N.A.	Not Listed	Not Listed	5	I	Y	SEE SWEL SHEET
SWEL1-022	0022AFP	AUX FEED PUMP NO. 22	AFB	18'-6"	N.A.	Not Listed	Not Listed	5	I	Y	SEE SWEL SHEET
SWEL1-023	0023CCP	CCW PUMP NO. 23	PAB	68'-0"	N.A.	Not Listed	Not Listed	5	I	Y	SEE SWEL SHEET
SWEL1-024	21CLWP	21 I/A CMPR CL COOLING WTR PUMP	CB	15'-0"	N.A.	Not Listed	Not Listed	5	I	N	SEE SWEL SHEET
SWEL1-025	21BATP	BORIC ACID TRANSFER PUMP 21	PAB	80'-0"	N.A.	Not Listed	Not Listed	5	I	N	SEE SWEL SHEET
SWEL1-026	0023CHP	NO. 23 CHARGING PUMP	PAB	80'-0"	N.A.	Not Listed	Not Listed	5	I	Y	SEE SWEL SHEET
SWEL1-027	21CSP	CONTAINMENT SPRAY PUMP 21	PAB	68'-0"	N.A.	Not Listed	Not Listed	5	I	Y	SEE SWEL SHEET
SWEL1-028	21RHRP	RHR PUMP NO. 21	PAB	15'-0"	N.A.	Not Listed	Not Listed	6	I	Y	SEE SWEL SHEET
SWEL1-029	0022RHRP	RHR PUMP NO. 22	PAB	15'-0"	N.A.	Not Listed	Not Listed	6	I	Y	SEE SWEL SHEET
SWEL1-030	0022SWP	22 SERVICE WATER PUMP	INTAKE	15'-0"	N.A.	Not Listed	Not Listed	6	O, H	Y	SEE SWEL SHEET
SWEL1-031	0026SWP	26 SERVICE WATER PUMP	INTAKE	15'-0"	N.A.	Not Listed	Not Listed	6	O, H	Y	SEE SWEL SHEET
SWEL1-032	0023FOTP	FUEL OIL TRANSFER PUMP D.G. 23	FOST	77'-6"	N.A.	Not Listed	Not Listed	6	O, H	N	SEE SWEL SHEET
SWEL1-033	22RP	22 RECIRC PUMP	VC	46'-0"	N.A.	Not Listed	Not Listed	6	I	N	SEE SWEL SHEET
SWEL1-034	PCV-1310A	AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE	AFB	43'-0"	N.A.	Not Listed	Not Listed	7	I	N	SEE SWEL SHEET
SWEL1-035	PCV-1310B	AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE	AFB	32'-6"	N.A.	Not Listed	Not Listed	7	I	N	SEE SWEL SHEET
SWEL1-036	FCV-1176	JACKET WATER COOLER RETURN FLOW CONTROL VALVE	EDG	67'-0"	N.A.	Not Listed	Not Listed	7	I	N	SEE SWEL SHEET
SWEL1-037	FCV-1176A	JACKET WATER COOLER RETURN FLOW CONTROL VALVE	EDG	67'-0"	N.A.	Not Listed	Not Listed	7	I	N	SEE SWEL SHEET
SWEL1-038	250A	21 RCP SEAL INJECTION LINE ISOLATION VALVE	PPEN & MEZZ	51'-0" & 67'-6"	N.A.	Not Listed	Not Listed	8	I	N	SEE SWEL SHEET

SWEL#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANCHOR	DRAWING
SWEL1-039	SWN-51-1A	21 FCU OUTLET SAMPLE ISO VALVE	MEZZ	67'-6"	N.A.	Not Listed	Not Listed	8	I	N	SEE SWEL SHEET
SWEL1-040	1870	RHR PUMP MINI FLOW TEST LINE VALVE	PPEN & MEZZ	51'-0" & 67'-6"	N.A.	Not Listed	Not Listed	8	I	Y	SEE SWEL SHEET
SWEL1-041	4928	24 RCP SEAL INJECTION LINE ISOLATION VALVE	PPEN	51'-0"	N.A.	Not Listed	Not Listed	8	I	N	SEE SWEL SHEET
SWEL1-042	HCV-142	BYPASS CHANNEL FLOW TO RCS VALVE	PPEN	51'-0"	N.A.	Not Listed	Not Listed	8	I	N	SEE SWEL SHEET
SWEL1-043	SOV-1230	SG 21 MSIV SOV	AFB	77'-4"	N.A.	Not Listed	Not Listed	8	I	Y	SEE SWEL SHEET
SWEL1-044	SOV-1231	SG 21 MSIV SOV	AFB	77'-4"	N.A.	Not Listed	Not Listed	8	I	Y	SEE SWEL SHEET
SWEL1-045	SOV-1232	SG 21 MSIV SOV	AFB	77'-4"	N.A.	Not Listed	Not Listed	8	I	Y	SEE SWEL SHEET
SWEL1-046	SOV-1233	SG 21 MSIV SOV	AFB	77'-4"	N.A.	Not Listed	Not Listed	8	I	Y	SEE SWEL SHEET
SWEL1-047	F-318	EDG BUILDING FAN	EDG	72'-0"	N.A.	Not Listed	Not Listed	9	I	N	SEE SWEL SHEET
SWEL1-048	22CPEF	CB PURGE AND PAB EXHAUST FAN	FAN HOUSE	72'-0"	N.A.	Not Listed	Not Listed	9	I	N	SEE SWEL SHEET
SWEL1-049	21CPEF	CB PURGE AND PAB EXHAUST FAN	FAN HOUSE	72'-0"	N.A.	Not Listed	Not Listed	9	I	N	SEE SWEL SHEET
SWEL1-050	21ETEF	EXHAUST FAN	ELE TUNNEL	73'-7"	N.A.	Not Listed	Not Listed	9	I	Y	SEE SWEL SHEET
SWEL1-051	F-216	WALL FAN #216	CB	15'-0"	N.A.	Not Listed	Not Listed	9	I	N	SEE SWEL SHEET
SWEL1-052	21CRF	CONTAINMENT RECIRC FAN 21	VC	68'-0"	N.A.	Not Listed	Not Listed	10	I	N	SEE SWEL SHEET
SWEL1-053	0022CRF	CONTAINMENT RECIRC FAN 22	VC	68'-0"	N.A.	Not Listed	Not Listed	10	I	N	SEE SWEL SHEET
SWEL1-054	0023CRF	CONTAINMENT RECIRC FAN 23	VC	68'-0"	N.A.	Not Listed	Not Listed	10	I	N	SEE SWEL SHEET
SWEL1-055	0024CRF	CONTAINMENT RECIRC FAN 24	VC	68'-0"	N.A.	Not Listed	Not Listed	10	I	N	SEE SWEL SHEET
SWEL1-056	0025CRF	CONTAINMENT RECIRC FAN 25	VC	68'-0"	N.A.	Not Listed	Not Listed	10	I	N	SEE SWEL SHEET
SWEL1-057	CCRAC2	CONDENSING UNIT (24 TONS)	TSC	88'-6"	N.A.	Not Listed	Not Listed	11	I	N	SEE SWEL SHEET

SWEL#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANCHOR	DRAWING
SWEL1-058	21IAC	INSTRUMENT AIR COMPRESSOR 21	CB	15'-0"	N.A.	Not Listed	Not Listed	12	I	Y	SEE SWEL SHEET
SWEL1-059	0022IAC	INSTRUMENT AIR COMPRESSOR 22	CB	15'-0"	N.A.	Not Listed	Not Listed	12	I	Y	SEE SWEL SHEET
SWEL1-060	22EDAC	STARTING AIR COMPRESSOR #22	EDG	62'-0"	N.A.	Not Listed	Not Listed	12	I	Y	SEE SWEL SHEET
SWEL1-061	21MGS	21 MACHINE GENERATOR SET	CB	33'-0"	N.A.	Not Listed	Not Listed	13	I	N	SEE SWEL SHEET
SWEL1-062	22MGS	22 MACHINE GENERATOR SET	CB	33'-0"	N.A.	Not Listed	Not Listed	13	I	N	SEE SWEL SHEET
SWEL1-063	IBUS21	118 VAC INSTRUMENT BUS 21	CB	53'-0"	N.A.	Not Listed	Not Listed	14	I	N	SEE SWEL SHEET
SWEL1-064	DPNL22	125 VDC DISTRIBUTION PNL 22 PC4	CB	53'-0"	N.A.	Not Listed	Not Listed	14	I	N	SEE SWEL SHEET
SWEL1-065	EDD1	TRANSFER SWITCH	CB	15'-0"	N.A.	Not Listed	Not Listed	14	I	Y	SEE SWEL SHEET
SWEL1-066	EDD2	TRANSFER SWITCH	CB	15'-0"	N.A.	Not Listed	Not Listed	14	I	Y	SEE SWEL SHEET
SWEL1-067	EDC1	STATIC INVERTER #23 MANUAL BY-PASS SWITCH	CB	33'-0"	N.A.	Not Listed	Not Listed	14	I	N	SEE SWEL SHEET
SWEL1-068	BATT21	BATTERY BANK	CB	33'-0"	N.A.	Not Listed	Not Listed	15	I	N	SEE SWEL SHEET
SWEL1-069	BATT22	BATTERY BANK	CB	33'-0"	N.A.	Not Listed	Not Listed	15	I	N	SEE SWEL SHEET
SWEL1-070	BATT23	BATTERY BANK	CB	33'-0"	N.A.	Not Listed	Not Listed	15	I	Y	SEE SWEL SHEET
SWEL1-071	BATT24	BATTERY BANK	CB	33'-0"	N.A.	Not Listed	Not Listed	15	I	N	SEE SWEL SHEET
SWEL1-072	MI9	BATTERY CHARGER 21	CB	33'-0"	N.A.	Not Listed	Not Listed	16	I	Y	SEE SWEL SHEET
SWEL1-073	EGA3	BATTERY CHARGER 24	CB	33'-0"	N.A.	Not Listed	Not Listed	16	I	Y	SEE SWEL SHEET
SWEL1-074	EGA1	10 KVA STATIC INVERTER #21	CB	33'-0"	N.A.	Not Listed	Not Listed	16	I	Y	SEE SWEL SHEET
SWEL1-075	EGA8	10 KVA STATIC INVERTER #23	CB	33'-0"	N.A.	Not Listed	Not Listed	16	I	N	SEE SWEL SHEET
SWEL1-076	21EDG	DIESEL GENERATOR NO. 21	EDG	72'-0"	N.A.	Not Listed	Not Listed	17	I	Y	SEE SWEL SHEET

SWEL#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANCHOR	DRAWING
SWEL1-077	0022EDG	DIESEL GENERATOR NO. 22	EDG	72'-0"	N.A.	Not Listed	Not Listed	17	I	Y	SEE SWEL SHEET
SWEL1-078	0023EDG	DIESEL GENERATOR NO. 23	EDG	72'-0"	N.A.	Not Listed	Not Listed	17	I	Y	SEE SWEL SHEET
SWEL1-079	INST RK5	INSTRUMENT RACK 5	AFB	18'-6"	N.A.	Not Listed	Not Listed	18	I	Y	SEE SWEL SHEET
SWEL1-080	PCV-1139	AUXILIARY FWP TURBINE SUPP PRESS REDUCING VALVE	AFB	18'-6"	N.A.	Not Listed	Not Listed	18	I	N	SEE SWEL SHEET
SWEL1-081	IP2-EDGB-72-DB6	EDG BLDG 72' ELEVATION ENGINE AUXILIARIES CONTROL PANEL	EDG	72'-0"	N.A.	Not Listed	Not Listed	18	I	N	SEE SWEL SHEET
SWEL1-082	INST RK 19	INSTRUMENT RACK 19	VC	68'-0"	N.A.	Not Listed	Not Listed	18	I	Y	SEE SWEL SHEET
SWEL1-083	INST RK 21	INSTRUMENT RACK 21	VC	68'-0"	N.A.	Not Listed	Not Listed	18	I	Y	SEE SWEL SHEET
SWEL1-084	ELJ-10	EDG BUILDING THERMOSTAT	EDG	72'-0"	N.A.	Not Listed	Not Listed	19	I	N	SEE SWEL SHEET
SWEL1-085	TE-130	NON REGEN OUTLET LETDOWN TEMP ELEMENT	PAB	98'-0"	N.A.	Not Listed	Not Listed	19	I	N	SEE SWEL SHEET
SWEL1-086	TE-122	EXCESS LETDOWN TEMP ELEMENT	VCI	46'-0"	N.A.	Not Listed	Not Listed	19	I	N	SEE SWEL SHEET
SWEL1-087	PNL PP9	EDG 21 CONTROL PANEL	EDG	72'-0"	N.A.	Not Listed	Not Listed	20	I	N	SEE SWEL SHEET
SWEL1-088	EPK1	SW PUMP #21 STRAINER CONT PNL	SWSTR PIT	5'-9"	N.A.	Not Listed	Not Listed	20	O	N	SEE SWEL SHEET
SWEL1-089	EPG9	REMOTE UNDERVOLTAGE RELAY CABINET, BUS 6A	CB	15'-0"	N.A.	Not Listed	Not Listed	20	I	N	SEE SWEL SHEET
SWEL1-090	22SIP	22 SAFETY INJECTION PUMP	PAB	59'-0"	N.A.	Not Listed	Not Listed	20	I	Y	SEE SWEL SHEET
SWEL1-091	PNL EPA10	PAB EXCHANGER & CB PRG FAN 21 CONTROL PANEL	FAN HOUSE	80'-0"	N.A.	Not Listed	Not Listed	20	I	N	SEE SWEL SHEET
SWEL1-092	21CCST	21 COMPONENT COOLING SURGE TANK	PAB	98'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-093	22BAT	BORIC ACID TANK	PAB	98'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-094	0021RWST	21 REFUELING WATER STORAGE TANK	NTF	82'-0"	N.A.	Not Listed	Not Listed	21	O	Y	SEE SWEL SHEET
SWEL1-095	CST	CONDENSATE STORAGE TANK	YARD	80'-0"	N.A.	Not Listed	Not Listed	21	O	Y	SEE SWEL SHEET

SWEL#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	ANCHOR	DRAWING
SWEL1-096	21FODT	FUEL OIL DAY TANK NO. 21	EDG	72'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-097	21NRHX	NON REGEN HEAT EXCHANGER NO 21	PAB	98'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-098	21CCHX	CCW HEAT EXCHANGER NO 21	PAB	80' to 98'	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-099	0022IACA	INST AIR COMPRESSOR 22 AFTERCOOLER	CB	15'-0"	N.A.	Not Listed	Not Listed	21	I	N	SEE SWEL SHEET
SWEL1-100	0022EDSAT	STARTING AIR TANK 22DG	EDG	67'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET
SWEL1-101	21AT	21 SIS ACCUMULATOR	VC	46'-0"	N.A.	Not Listed	Not Listed	21	I	Y	SEE SWEL SHEET

Key to Environment Code

O = outdoors
 H = high humidity
 T = high temperature
 I = indoors
 B = Boron

Key to Building Code

EDG = Emergency Diesel Generator
 VC = Vapor Containment
 PAB = Primary Auxiliary Building
 AFB = Auxiliary Feed Pump Building
 CB = Control Building
 PPEN = Pipe Penetration
 FOST = Fuel Oil Storage Tank
 SWSTR PIT = Service Water Strainer Pit
 INTAKE = Intake Structure
 TSC = Technical Support Center
 ELE TUNNEL = Electrical Tunnel
 MEZZ = Mezzanine

Table 3 SWEL2 Base List

BL/2	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	N/R
2-2-1	21RWPP	Refueling Water Purification Pump 21 and Motor	PAB	68	Not Listed	Not Listed	N/A to BL 2	5	IB	
2-2-2	21SFPP	Spent Fuel Pit Pump 21 and Motor	FSB	70	Not Listed	Not Listed	N/A to BL 2	5	IB	
2-2-3	22SFPP	Spent Fuel Pit Pump 22 and Motor	FSB	70	Not Listed	Not Listed	N/A to BL 2	5	IB	
2-2-4	21SFPHX	Spent Fuel Pit Heat Exchanger	FSB	80	Not Listed	Not Listed	N/A to BL 2	21	IB	
2-2-5	21SFSP	Spent Fuel Pool Skimmer Pump 21	FSB	95	Not Listed	Not Listed	N/A to BL 2	5	I	
2-2-6	SFPD	Spent Fuel Pit Demineralizer 21	PAB	59	Not Listed	Not Listed	N/A to BL 2	21	IB	
2-2-7	SFPF	Spent Fuel Pit Filter 21	PAB	80	Not Listed	Not Listed	N/A to BL 2	0	IB	
2-2-8	SFPBH	Spent Fuel Pit Bridge Crane	FSB	95	Not Listed	Not Listed	N/A to BL 2	0	I	
2-2-9	40TFSBH	Fuel Storage Building 40/5 Ton Crane	FSB	95	Not Listed	Not Listed	N/A to BL 2	0	I	
2-2-10	110TFSB	Ederer Crane (Dry Fuel Storage)	FSB	95	Not Listed	Not Listed	N/A to BL 2	0	I	

Table 4 SWEL2 Rapid Draw-Down List

RDD#	DESCRIPTION	BASIS FOR INCLUSION/EXCLUSION	RDD
R-2-01	Fuel Transfer Tube Blind Flange (IP2)	Excluded. Routinely disassembled, inspected and reassembled every refueling. Additionally, excluded per FAQ 3.17.	Y
R-2-02	Fuel Transfer Canal Weir Gate (IP2)	Excluded. Routinely inspected every refueling. Additionally, excluded per FAQ 3.16.	Y
R-2-03	Abandoned 4" Pipe Penetration (IP2)	Excluded. Not accessible (in Spent Fuel Pool). Additionally, in category of "piping", not equipment or component.	Y

Table 5 WEL2 Seismic Walkdown Equipment List

SWEL2#	EQUIPMENT ID	DESCRIPTION	BLDG.	ELEV.	ROOM	TRAIN	SYSTEM TYPE	CLASS	ENVIRONMENT	N/R	RDD
SWEL2-2-001	21RWPP	Refueling Water Purification Pump 21 and Motor	PAB	68	Not Listed	Not Listed	N/A to BL 2	5	IB		N/A
SWEL2-2-002	21SFPP	Spent Fuel Pit Pump 21 and Motor	FSB	70	Not Listed	Not Listed	N/A to BL 2	5	IB		N/A
SWEL2-2-003	22SFPP	Spent Fuel Pit Pump 22 and Motor	FSB	70	Not Listed	Not Listed	N/A to BL 2	5	IB		N/A
SWEL2-2-004	21SFPHX	Spent Fuel Pit Heat Exchanger	FSB	80	Not Listed	Not Listed	N/A to BL 2	21	IB		N/A
SWEL2-2-005	SFPBH	Spent Fuel Pit Bridge Crane	FSB	95	Not Listed	Not Listed	N/A to BL 2	0	I		N/A
SWEL2-2-006	40TFSBH	Fuel Storage Building 40/5 Ton Crane	FSB	95	Not Listed	Not Listed	N/A to BL 2	0	I		N/A
SWEL2-2-007	110TFSB	Ederer Crane (Dry Fuel Storage)	FSB	95	Not Listed	Not Listed	N/A to BL 2	0	I		N/A

Indian Point Unit 2

Seismic Walkdown Equipment List Approval

Prepared by: Michael Koutsakos *Michael Koutsakos* Date: 11/8/2012
Equipment Selection Personnel

Reviewed by: Tom Panayotidis *Tom Panayotidis* Date: 11/07/2012
Kevin LaNinone *Kevin LaNinone* Date: 10/25/2012
Peer Reviewer

Concurrence by: John Ballek *John Ballek* Date: 11/8/2012
Operations Personnel

ATTACHMENT C – SEISMIC WALKDOWN CHECKLISTS (SWCs)

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-001

Equipment ID No. 0022SWPS Equip. Class¹ 0

Equipment Description NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER

Location: Bldg. SWSTR PIT Floor El. 5'-9" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Found mild surface corrosion. Acceptable, not a seismic issue.

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-001**Equipment ID No. 0022SWPSEquip. Class¹ 0Equipment Description NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-001

Equipment ID No. 0022SWPS

Equip. Class¹ 0

Equipment Description NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER

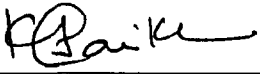
Other Adverse Conditions


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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC
503080 Rev 0, Intake structure Zurn strainer # 22 thru # 26 piping arrangement sections.
A-208111, Rev 19, Piping arrangement of automatic strainers in service water system intake structure.
AWC-013

Evaluated by: Kirit Parikh  Date: 10/23/2012

Nick Crispell  10/23/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-001

Equipment ID No. 0022SWPS

Equip. Class¹ 0

Equipment Description NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER

Photographs



Note: Front view of the service water pump automatic strainer.



Note: Side view of the service water pump automatic strainer

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

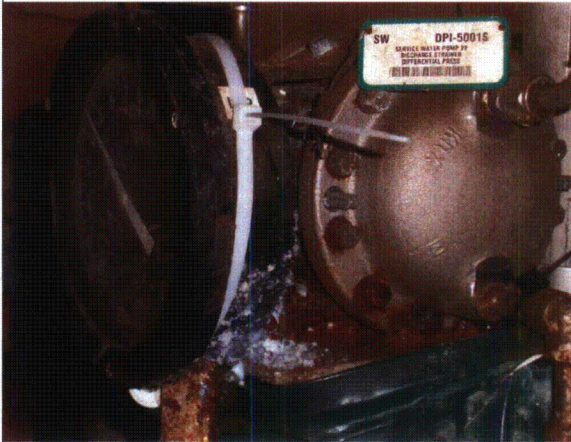
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-001

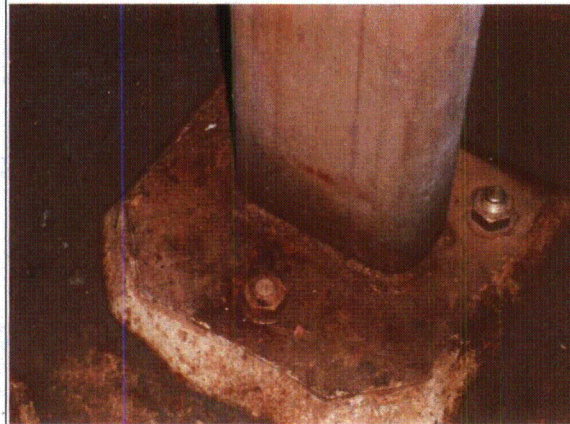
Equipment ID No. 0022SWPS

Equip. Class¹ 0

Equipment Description NO. 22 SERVICE WATER PUMP AUTOMATIC STRAINER



Note: Side view of the service water pump strainer



Note: Base plate view of the service water pump strainer support.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-002**Equipment ID No. 0024SWPS Equip. Class¹ 0Equipment Description NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINERLocation: Bldg. SWSTR PIT Floor El. 5'-9" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

*Found mild surface corrosion. Acceptable not a seismic issue.
Yes the anchorage is free of corrosion that is more than mild surface oxidation.*

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-002**Equipment ID No. 0024SWPSEquip. Class¹ 0Equipment Description NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINER

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

Strainer is very close (about 3/4") to Unistrut channel. Acceptable since it is well secured and target is a hard 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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-002

Equipment ID No. 0024SWPS

Equip. Class¹ 0

Equipment Description NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINER

Other Adverse Conditions

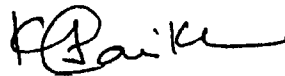
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: (Drawings and AWC)
503060 Rev 0, Intake structure Zurn strainer # 22 thru # 26 piping arrangement sections.
A 208111, Rev 19, Piping arrangement of automatic strainers in service water system intake structure,
AWC-013*

Evaluated by: Kirit Parikh



Date: 10/23/2012

Nick Crispell



10/23/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

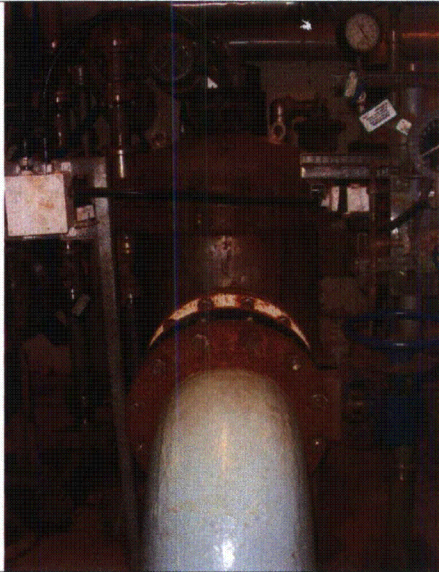
Seismic Walkdown Checklist (SWC) SWEL1-002

Equipment ID No. 0024SWPS

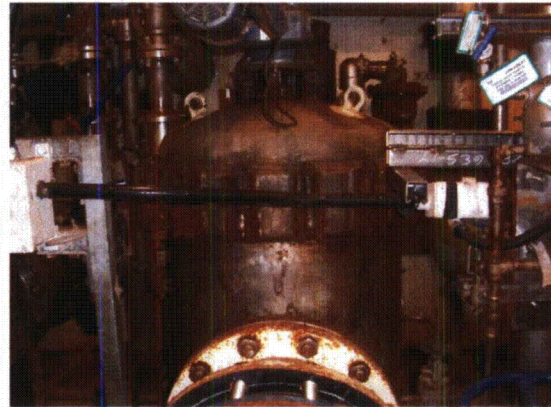
Equip. Class¹ 0

Equipment Description NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINER

Photographs



Note: Side view of the service water pump automatic strainer



Note: Front view of the service water pump automatic strainer

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

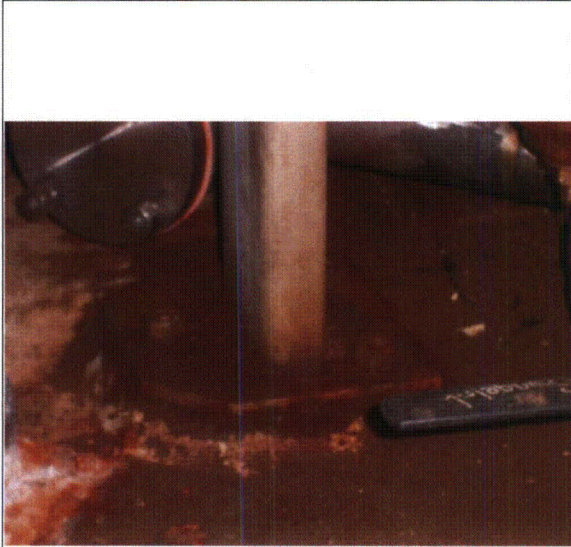
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-002

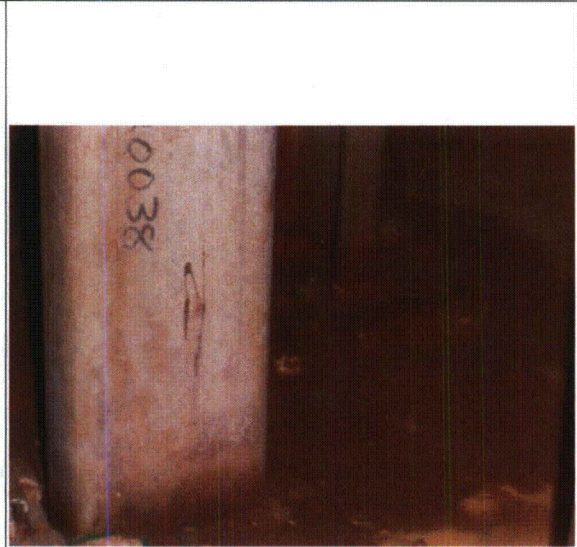
Equipment ID No. 0024SWPS

Equip. Class¹ 0

Equipment Description NO. 24 SERVICE WATER PUMP AUTOMATIC STRAINER



Note: Base plate view of the service water pump



Note: Base plate view of the service water pump

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-004

Equipment ID No. MS-47A

Equip. Class¹ 0

Equipment Description MS-47A

Location: Bldg. AFB

Floor El. 77'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No, the anchorage configuration verification is not required.

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

Not applicable since this is an in-line component.

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

Not applicable since this is an in-line component.

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

Not applicable since this is an in-line component.

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

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-004

Equipment ID No. MS-47A

Equip. Class¹ 0

Equipment Description MS-47A

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-004

Status: Y N U

Equipment ID No. MS-47A

Equip. Class¹ 0

Equipment Description MS-47A

Other Adverse Conditions

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

Yes, we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

- 1. SQUG MS-45A
- 2. DWG 9321-F-2137, Rev 7, Turbine Building, Heated Bay & Yard area, Safety Valve Drainage Piping.
- 3. AWC-036

Evaluated by: Stephen Yuan  Date: 10/25/2012

Paul Huebsch  Date: 10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-004

Equipment ID No. MS-47A

Equip. Class¹ 0

Equipment Description MS-47A

Photographs



Note: MS-47A



Note: Tag Close Up View

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. PCV-1276

Equip. Class¹ 0

Equipment Description N2 BACKUP TO AFW CONTROL VALVES

Location: Bldg. AFB Floor El. 18'-6" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes, the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U**Seismic Walkdown Checklist (SWC) SWEL1-005**Equipment ID No. PCV-1276Equip. Class¹ 0Equipment Description N2 BACKUP TO AFW CONTROL VALVES

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.)

Yes, the anchorage configuration is consistent with plant documentation. Drawing: 9321-LL-11196 Rev 1

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Fluorescent light bulbs need to be secured by wires to the light fixture for good practice. This is a house keeping issue it is judged the bulbs will not affect this SWEL component. CR IP2-2012-06483 has been written to resolve this condition.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. PCV-1276

Equip. Class¹ 0

Equipment Description N2 BACKUP TO AFW CONTROL VALVES

Other Adverse Conditions

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

Loose tool is found in the area and needs to be removed. During a seismic event the tool will swing and strike nearby valves/equipment. See Picture. CR IP2-2012-06483 has been written to remedy this condition.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

1. SQUG PVC-1276
2. DWG A240155, Rev 4, Auxiliary Boiler Feed Pump Room Instrument Air/Nitrogen Back-up System Piping Arrangement Plan and Details
3. DWG 9321-F-7053, Rev 38, AB Feed Pump Room Instrument Piping – Sheet 2, Instrumentation
4. DWG 9321-F-1208, Rev 8, Shield Wall Area, Concrete Plan El. 18'-6"
5. AWC-035

Evaluated by: Stephen Yuan  Date: 10/25/2012

Paul Huebsch  Date: 10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

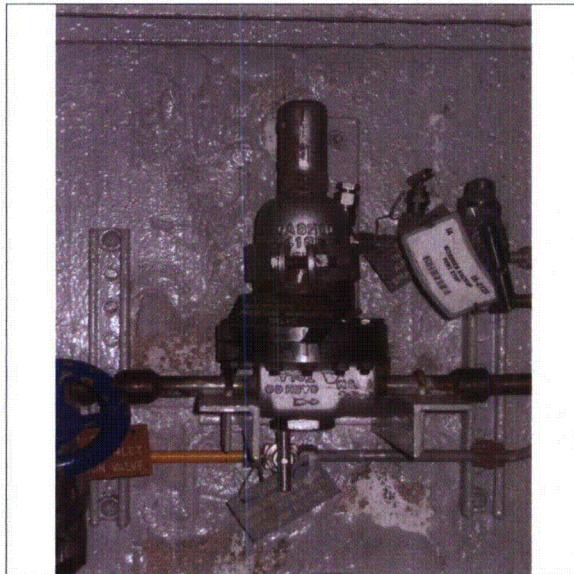
Seismic Walkdown Checklist (SWC) SWEL1-005

Equipment ID No. PCV-1276

Equip. Class¹ 0

Equipment Description N2 BACKUP TO AFW CONTROL VALVES

Photographs



Note: PCV-1276, N2 Backup To AFW Control Valve



Note: Close up view of its support.

ATTACHMENT 9.6
Sheet 5 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-005

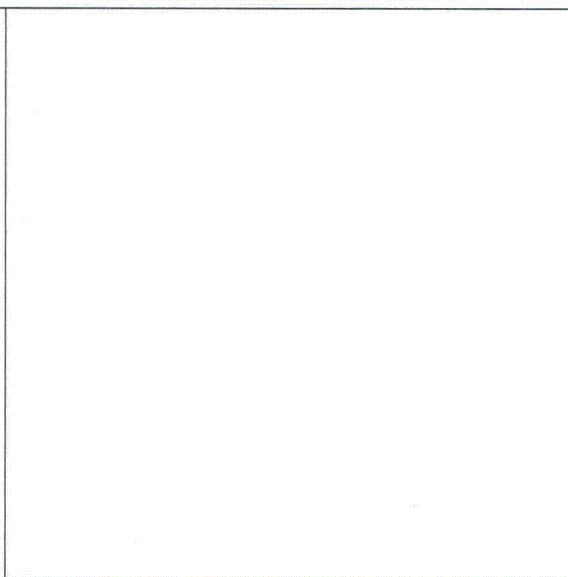
Equipment ID No. PCV-1276

Equip. Class¹ 0

Equipment Description N2 BACKUP TO AFW CONTROL VALVES



Note: Loose tool is found in the area and needs to be removed.



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. MCC-26A

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Location: Bldg. PAB

Floor El. 98'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Anchorage is internal to cabinet and can not be inspected at current time. Cabinet should be powered down and opened for inspection.

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

Anchorage is internal to cabinet and can not be inspected at current time. Cabinet should be opened for inspection.

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

No significant cracks external to cabinet. Internally should be inspected.

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

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-006**Equipment ID No. MCC-26AEquip. Class¹ 1Equipment Description 480 VAC MCC

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

The anchorage configuration is consistent with drawing 9321-LL-11049 sht. 4 Rev 1.

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

See comments in line 2 and 3

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs need wire securing bulb to fixture. CR IP2-2012-06354 issued to resolve.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. MCC-26A

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Cover screws on divider between MCC cubicals 3D & 4D not secured. Judged not to be seismic concern. CR IP2-2012-06605 issued to resolve.

References: Drawings and AWC

Drawings: 9321-LL-11049 sht.4 Rev 1 Auxiliary control panels for DG 31,32,33, Auxiliary control panels P7A.

9321-F-11051 Rev 1 Auxiliary control panel P7A

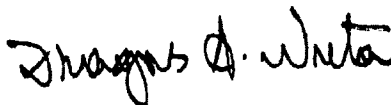
AWC-023

Evaluated by: Nick Crispell



Date: 10-22-2012

Dan Nuta



10-22-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

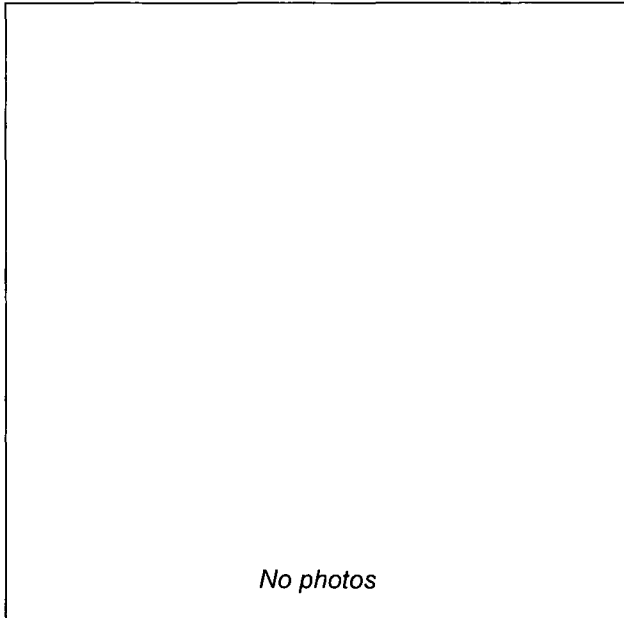
Seismic Walkdown Checklist (SWC) SWEL1-006

Equipment ID No. MCC-26A

Equip. Class¹ 1

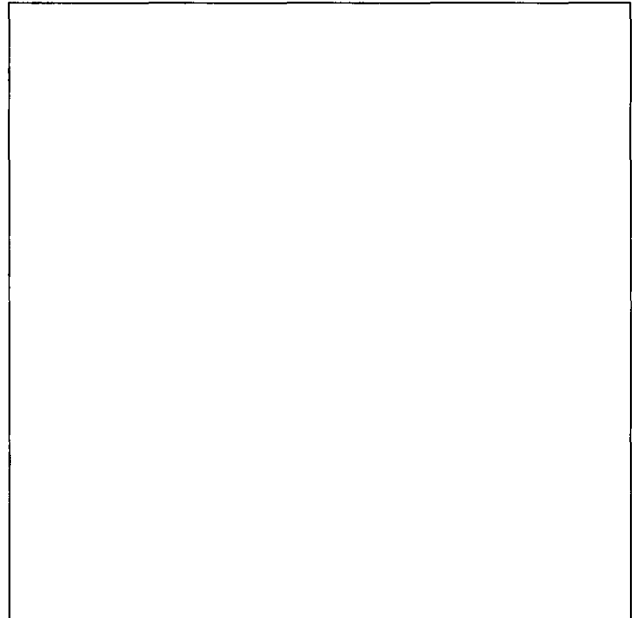
Equipment Description 480 VAC MCC

Photographs



No photos

Note: *No photos possible due to procedurally required camera standoff distance.*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-007

Equipment ID No. MCC-26AA

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Location: Bldg. PAB

Floor El. 98'-0"

Room, Area MCC Room

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Cabinet cubicals should be opened but are not allowed to be opened at power.

External anchorage at top to unistrut and exterior weld at bottom checked and found to be free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of bent, broken, missing or loose hardware for exterior visible anchorage. Interior could not be examined. MCC needs to be opened and internals inspected.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors when inspected externally. Interior can not be examined until MCC is opened and internally inspected.

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

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-007**Equipment ID No. MCC-26AAEquip. Class¹ 1Equipment Description 480 VAC MCC

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.)

*External stitch weld at bottom and anchorage with unistruts at top matches SQUG (SEWS). Internals could not be examined.
 Reference Dwg: 9321-F-20063-28 (A201805) Rev-28,*

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

Yes based on the above external only inspection anchorage evaluations, the anchorage is free of potentially adverse seismic conditions as inspected externally. Interior could not be examined.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Florescent light with no safety wire is contrary to good seismic practice and must be secured to fixture. CR IP2-2012-06354 issued to track resolution.

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

Yes attached lines have adequate flexibility to avoid damage.

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

Florescent bulbs can fall and impact MCC.

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-007

Equipment ID No. MCC-26AA

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings:

9321-F-20063(A201805), Rev-28, Turbine building and heater bay general arrangement ground floor plan at elev 15'.

9321-F-10323(A201331), Rev 5, Turbine building concrete plan at elev. 15' S.E portion.

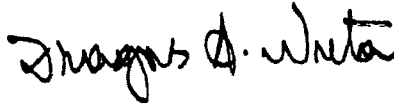
AWC-024

Evaluated by: Nick Crispell



Date: 10-22-2012

Dan Nuta



10-22-2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-007

Equipment ID No. MCC-26AA

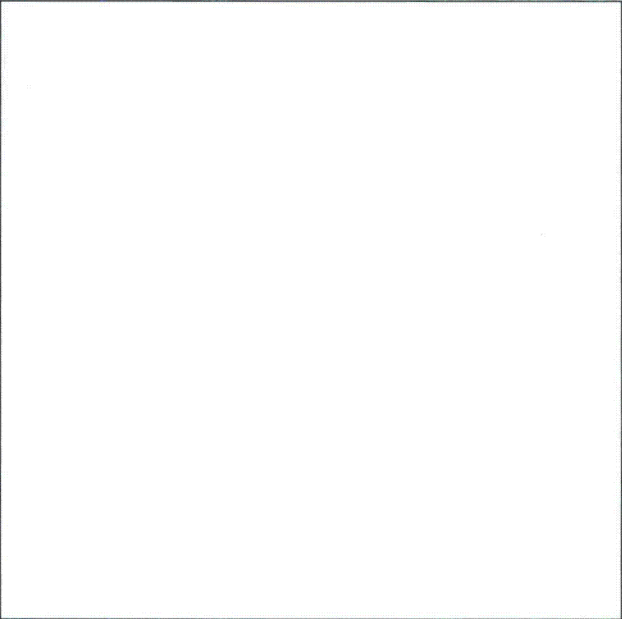
Equip. Class¹ 1

Equipment Description 480 VAC MCC

Photographs



Note: MCC



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-008**Equipment ID No. MCC-26BEquip. Class¹ 1Equipment Description 480 VAC MCCLocation: Bldg. PABFloor El. 98'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

MCC can not be opened at current time but should be. Anchorage not visible from outside. MCC is to be powered down and opened when possible.

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

Anchorage not visible from outside.

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

No cracks of significance outside of MCC. Internal anchorage is not visible from outside.

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

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-008**Equipment ID No. MCC-26BEquip. Class¹ 1Equipment Description 480 VAC MCC

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.)

*Internal anchorage is not visible from outside.**Reference Drawing: 9321-F-2510-49 (A200627), Rev 49*

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

*Internal anchorage is not visible from outside.***Interaction Effects**

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs need wire restraints securing bulb to fixture. CR IP2-2012-06354 issued to track resolution.

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

Yes attached lines have adequate flexibility to avoid damage.

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

Unsecured fluorescent bulbs could fall on MCC.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-008

Equipment ID No. MCC-26B

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Loose cover screw on MCC cubical 6D & 6H. Missing cover screw on Aux. Component Pump cubical 5KR, and on one bottom cover plate. MCC judged seismicly acceptable given location and quantity of remaining screws. CR IP2-2012-06605 issued to track repair of screws.

References: Drawings and AWC

Dwg DMD 311678-AA,

9321-F-2510(A200627), Rev 49 Primary Auxiliary building general arrangement plans.

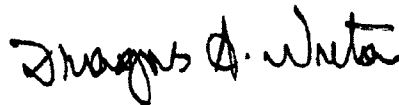
AWC-023

Evaluated by: Nick Crispell



Date: 10-22-2012

Dan Nuta



10-22-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-008

Equipment ID No. MCC-26B

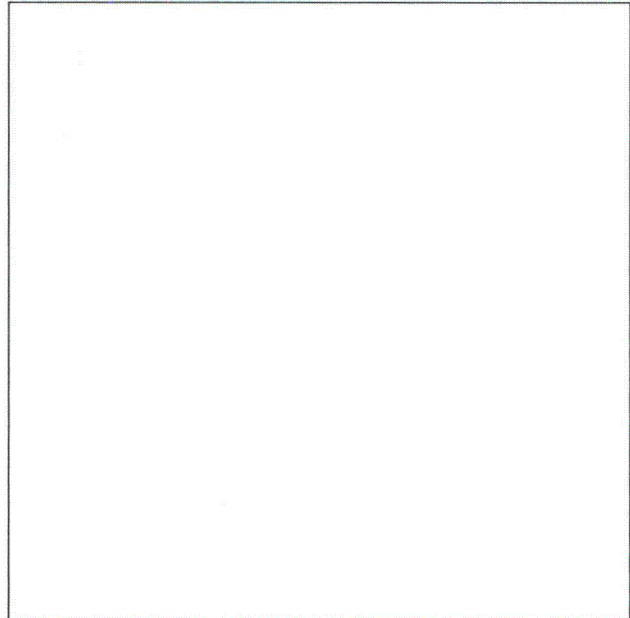
Equip. Class¹ 1

Equipment Description 480 VAC MCC

Photographs



Note: *MCC-26B. Not other pictures allowed while meeting the procedurally required 6' stand off distance.*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. MCC-26BB

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Location: Bldg. PAB

Floor El. 98'-0"

Room, Area MCC Room

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

External anchorage checked and found to be acceptable. Cubicals are to be opened and anchorage of internal components checked. Cubicals are not allowed to be opened when cubicals are powered.

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

Yes for external anchorage. Internals to be examined after opening the cabinet.

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

No significant cracks external to cabinet. Internals to be examined.

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

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-009**Equipment ID No. MCC-26BBEquip. Class¹ 1Equipment Description 480 VAC MCC

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 matches SQUG (SEWS) for external anchorage.

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

Internals to be examined at a latter time. Externals are acceptable.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent light with no safety wire is contrary to good seismic practice and must be secured to fixture. Bulbs are not over top of MCC and therefore MCC is acceptable seismicly. CR IP2-2012-06354 issued to track resolution.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. MCC-26BB

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC.

Drawings: 9321-F-70693 Rev, 2 Primary Auxiliary building general arrangement plan at elev. 55' instrumentation.

9321-F-25153(A202087), Rev 22, Primary Auxiliary building general arrangement plan at elev. 55' & 73'.

SK-020 Rev 0 sht. 1 & 2, MCC-36B PAB elev. 55'.

A208570, Rev 4, Equipment arrangement for post accident remote valve control sampling selection center.

A200250

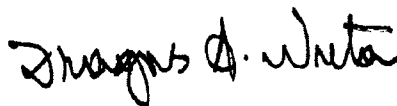
AWC-024

Evaluated by: Nick Crispell



Date: 10/22/2012

Dan Nuta



10/22/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-009

Equipment ID No. MCC-26BB

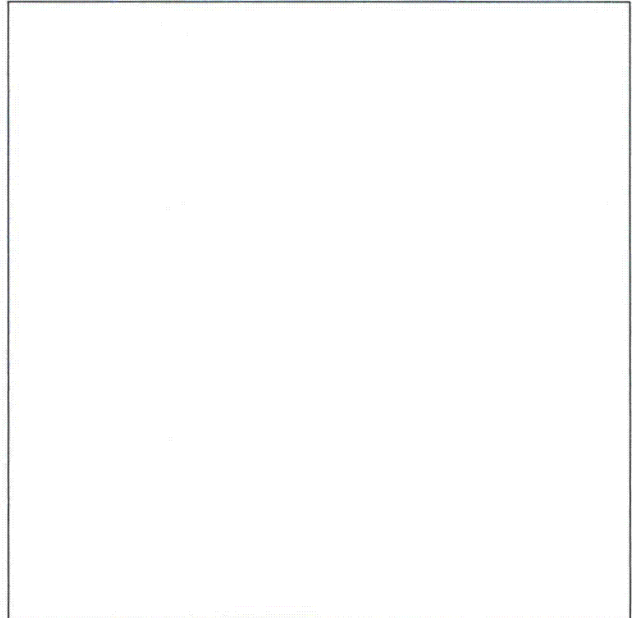
Equip. Class¹ 1

Equipment Description 480 VAC MCC

Photographs



Note: *North half of MCC room. Other photos not allowed due to procedurally required camera standoff requirements.*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. MCC-27A

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Location: Bldg. PAB

Floor El. 98'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Anchorage is internal to MCC and is not visible from the exterior. Cubicals are to be opened but are not allowed to be opened when cubical is powered. MCC to be powered down and MCC opened for inspection.

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

Anchorage is internal to MCC & is not visible from the exterior. Cubicals are to be opened but are not allowed to be at the current time.

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

No cracks of significance external to MCC. Need to examine internally.

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

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-010**Equipment ID No. MCC-27AEquip. Class¹ 1Equipment Description 480 VAC MCC

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.)

Reference SQUG (SEWS) for anchorage details. MCC needs to be opened to see anchorage.

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

MCC needs to be opened.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. MCC-27A

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Other Adverse Conditions


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

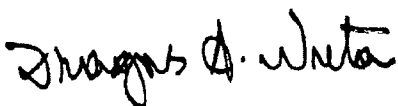
Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*1 of 6 cover screws loose on north power panel. Judged not to be a seismic concern.
 CR IP2-2012-06605 issued to track resolution.*

*References: Drawings and AWC.
 Drawings: 9321-F-2510(A200627), Primary Auxiliary building general arrangement plans.
 AWC-023*

Evaluated by: Nick Crispell  Date: 10-22-2012

Dan Nuta  10-22-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

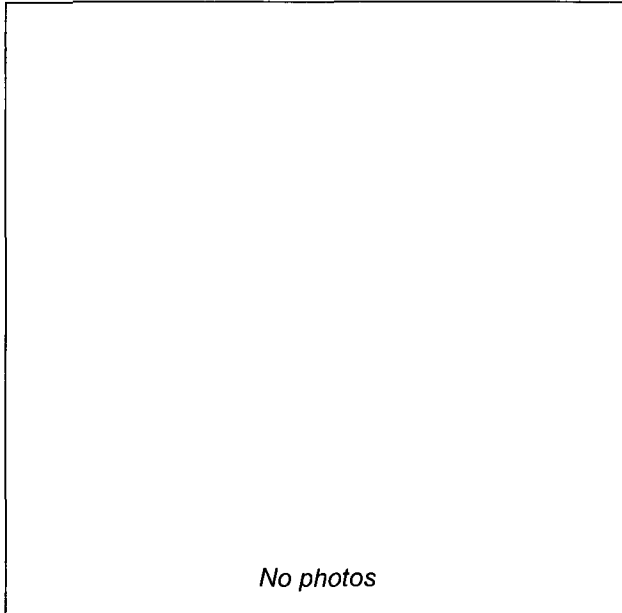
Seismic Walkdown Checklist (SWC) SWEL1-010

Equipment ID No. MCC-27A

Equip. Class¹ 1

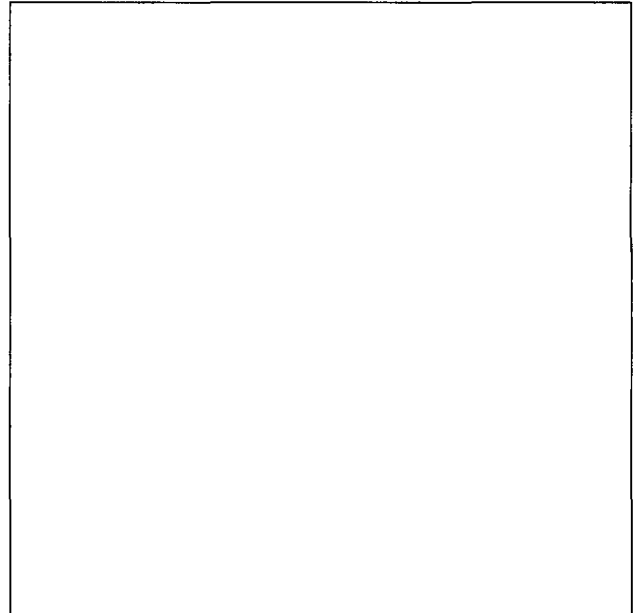
Equipment Description 480 VAC MCC

Photographs



No photos

Note: *No photos possible of component due to procedurally required camera standoff requirements.*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-011**Equipment ID No. MCC-29Equip. Class¹ 1Equipment Description 480 VAC MCCLocation: Bldg. CBFloor El. 33'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Internal anchorage not visible from outside. Cabinet shall be opened when MCC is powered down to inspect internal concrete anchorage and anchorage of internal components to the cabinet.

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

Cannot be determined since anchorage is internal to cabinet and door could not be opened.

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

Floor coated. No noticable cracks of significance.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-011**Equipment ID No. MCC-29Equip. Class¹ 1Equipment Description 480 VAC MCC

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.)

Cannot be determined since anchorage is internal to cabinet and door could not be opened. Anchorage to be per SQUG (SEWS).

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

Cannot be determined since anchorage is internal to cabinet and door could not be opened.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Block wall is seismically qualified by Computech report No. R547.01.

Florescent bulbs need to be secured to the fixture with wires. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture. It is judged the hard target MCC will remain operable if the florescent bulbs were to fall on it.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-011

Equipment ID No. MCC-29

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC.

Drawings:

A206640, Rev. 10, Arrangement of equipment in Cable Spreading room elev. 33'-0" west half plan & sects

SQUG (SEWS)

AWC-004

Evaluated by: Nick Crispell



Date: 10/11/2012

Stephen Yuan



10/11/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-011

Equipment ID No. MCC-29

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Photographs



Note:



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. MCC-26C

Equip. Class¹ 1

Equipment Description 480 VAC MCC

Location: Bldg. CB

Floor El. 33'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Anchorage internal to cabinet. Plant operations not allowed to open cubicals when powered. MCC is to be powered down and internal anchorage and anchorage of internal components inspected.

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

See answer to question 2.

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

See answer to question 2.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-012**Equipment ID No. MCC-26CEquip. Class¹ 1Equipment Description 480 VAC MCC

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.)

Cannot be determined since anchorage is internal to cabinet and door could not be opened. Anchorage to be per SQUG (SEWS).

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

MCC needs to be opened.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Masonry wall qualified by computech report no. R547.01.

Fluorescent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinets will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture for good seismic housekeeping.

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

Yes attached lines have adequate flexibility to avoid damage.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. MCC-26C

Equip. Class¹ 1

Equipment Description 480 VAC MCC

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

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

Other Adverse Conditions

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

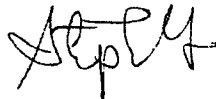
Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Spare MCC26X-4H cubical missing 1 of 2 lock latches. MCC judged seismicly acceptable. CR IP2-2012-06509 issued to track resolution.

*References: Drawings and AWC
A206640, Rev. 10, Arrangement of equipment in Cable Spreading room elev. 33'-0" west half plan & sects
SQUG (SEWS)
AWC-004*

Evaluated by: Stephen Yuan



Date: 10-11-2012

Nick Crispell



10-11-2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-012

Equipment ID No. MCC-26C

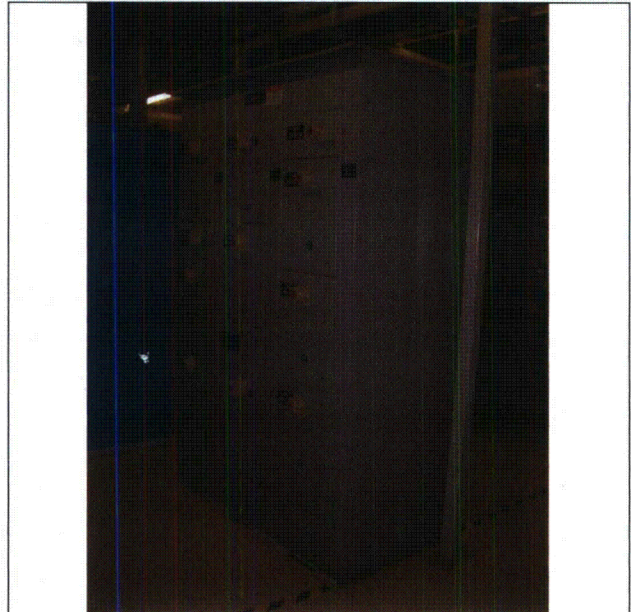
Equip. Class¹ 1

Equipment Description 480 VAC MCC

Photographs



Note:



Note:

Seismic Walkdown Checklist (SWC) SWEL1-013

Status: Y N U

Equipment ID No. BUS 5A Equip. Class¹ 2

Equipment Description 480V BUS 5A

Location: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Cubicle doors were opened. Internals were examined and judged to be anchored adequately. Visible floor anchorage acceptable.

It was noted most breakers did not have a lower left bolt and/or smaller bottom bolts connecting the breaker to the back of the cubicle. Missing bolts were judged acceptable given weight of breakers and large diameters of 3 other existing bolts. Following walkdown issue was discussed with Breaker Component Engineer (Lubrano) who said bolting was normal and acceptable.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-013**Equipment ID No. BUS 5AEquip. Class¹ 2Equipment Description 480V BUS 5A

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinets will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie fluorescent bulb to fixture for good seismic housekeeping.

Masonry (brick & block) walls in the area are seismically qualified per Computech report R547.01.

EN-DC-168 REV 0

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. BUS 5A

Equip. Class¹ 2

Equipment Description 480V BUS 5A

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

Other Adverse Conditions

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

Overhead breaker hoist is adequately secured.

Comments (Additional pages may be added as necessary)

*References:
 A219340, Rev 2, Conduit layout control building elevation 15'-0" plan for install of fire dampers.
 209196, Rev 11, Control building fire detection system, cable spread room elev 33'-0"
 CR IP2-2012-06120
 AWC-002*

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-9-2012

Stephen Yuan *Step Y* 10-9-2012

Dan Nuta *Dan Nuta* 10-9-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

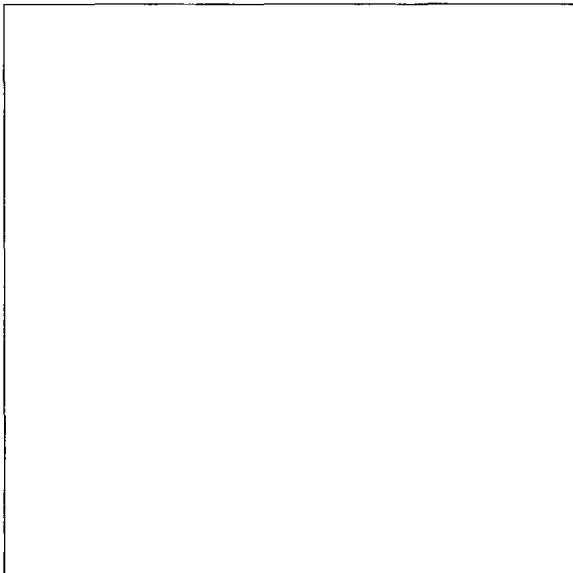
Seismic Walkdown Checklist (SWC) SWEL1-013

Equipment ID No. BUS 5A

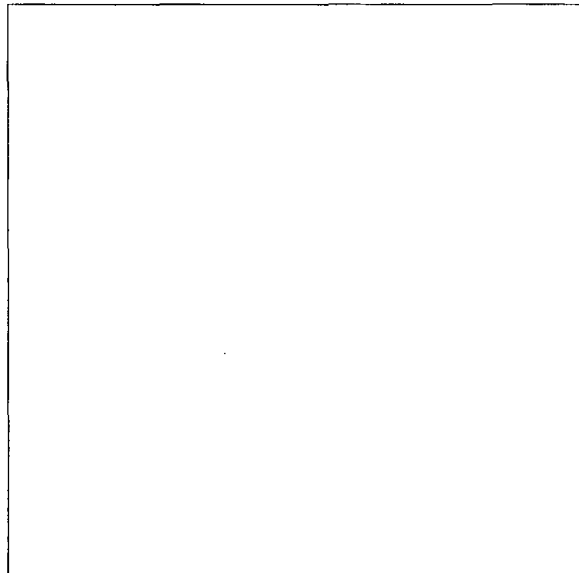
Equip. Class¹ 2

Equipment Description 480V BUS 5A

Photographs



Note: *Pictures could not be taken while meeting the procedural camera standoff requirement.*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-014

Equipment ID No. BUS 6A

Equip. Class¹ 2

Equipment Description 480V BUS 6A

Location: Bldg. CB

Floor El. 15'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Cubicle doors were opened. Internals were examined and judged to be anchored adequately. Visible floor anchorage acceptable.

It was noted most breakers did not have a lower left bolt and/or smaller bottom bolts connecting the breaker to the back of the cubicle. Missing bolts were judged acceptable given weight of breakers and large diameters of 3 other existing bolts. Following walkdown issue was discussed with Breaker Component Engineer (Lubrano) who said bolting was normal and acceptable.

Cubicle 52/3A T6A Bus tie 3A to 6A 480V 6A-7B was racked out and work inprogress tagged with having a broken rack stop mechanism.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-014**Equipment ID No. BUS 6AEquip. Class¹ 2Equipment Description 480V BUS 6A

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinets will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie fluorescent bulb to fixture for good seismic housekeeping.

Masonry (brick & block) walls are in the area and are seismically qualified per Computech report R547.01.

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-014

Equipment ID No. BUS 6A

Equip. Class¹ 2

Equipment Description 480V BUS 6A

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

Other Adverse Conditions

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

Overhead breaker hoist is adequately secured with chain and lock.

Comments (Additional pages may be added as necessary)

References:

*Drawings: A219340, Rev 2, Conduit layout Control Building elev. 15-0 plan for install of fire dampers
SQUG (SEWS)
CR IP2-2012-06120
AWC-002*

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-9-2012

Stephen Yuan *Step Y* 10-9-2012

Dan Nuta *Dan Nuta* 10-9-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-014

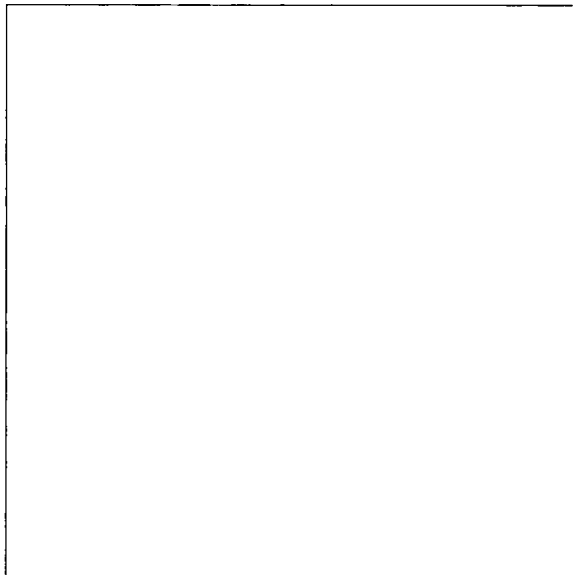
Status: Y N U

Equipment ID No. BUS 6A

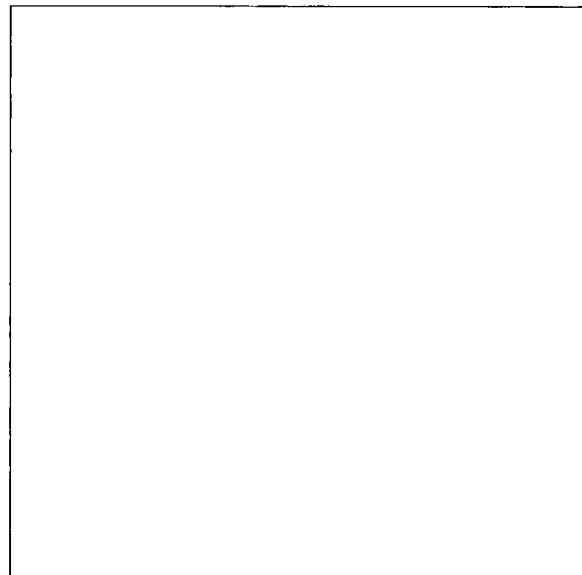
Equip. Class¹ 2

Equipment Description 480V BUS 6A

Photographs



Note: *Pictures could not be taken while meeting the procedural camera standoff requirement.*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-015

Equipment ID No. 52/RTA

Equip. Class¹ 2

Equipment Description REACTOR TRIP BREAKER A

Location: Bldg. CB

Floor El. 33'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No, the anchorage configuration verification is not required.

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

Cabinet anchorage inspected by looking through bottom vent opening. All visible anchors in good condition. Anchorage of components internal to cabinet could not be examined at time of inspection. Cabinet to be powered down and internals inspected.

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

Mild surface corrosion acceptable.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-015**Equipment ID No. 52/RTAEquip. Class¹ 2Equipment Description REACTOR TRIP BREAKER 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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the externally visible anchorage evaluations, the anchorage is free of potentially adverse seismic conditions. Internals to be inspected when cabinet is powered down. See questions 2.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinet will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie fluorescent bulb to fixture for added protection.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-015

Equipment ID No. 52/RTA

Equip. Class¹ 2

Equipment Description REACTOR TRIP BREAKER A

Other Adverse Conditions

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

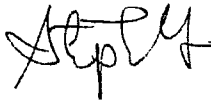
Cover on west side of cabinet is missing 3 of 14 screws. Cabinet with missing screws judged acceptable during seismic event. CR IP2-2012-06155 issued to track resolution. See AWC-003 for reference.

Comments (Additional pages may be added as necessary)

References:

Drawings: 9321-F-3052, Rev 38, Equipment arrangement control building.
AWC-003

Evaluated by: Stephen Yuan



Date: 10/11/2012

Nick Crispell



10/11/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-015

Equipment ID No. 52/RTA

Equip. Class¹ 2

Equipment Description REACTOR TRIP BREAKER A

Photographs



Note: RTA cabinet looking from east of side.



Note: RTA cabinet looking from west of side.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-016

Equipment ID No. SST5

Equip. Class¹ 4

Equipment Description STATION SERVICE TRANSFORMER 5A

Location: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No, the anchorage configuration verification is not required.

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

Anchorage is present but is internal to transformer which makes anchors not visible externally. Multiple bolts present securing cover shut, no hinge present so panels are not required to be opened.

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

Anchorage not visible.

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

Anchorage not visible.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-016**Equipment ID No. SST5Equip. Class¹ 4Equipment Description STATION SERVICE TRANSFORMER 5A

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinets will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie fluorescent bulb to fixture for good seismic housekeeping.

Masonry (brick & block) walls in the area are seismically qualified per Computech report R547.01.

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

Yes attached lines have adequate flexibility to avoid damage.

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-016

Equipment ID No. SST5

Equip. Class¹ 4

Equipment Description STATION SERVICE TRANSFORMER 5A

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

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

Other Adverse Conditions

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

Overhead breaker hoist is adequately secured.

Comments (Additional pages may be added as necessary)

References:

A247343-00, Rev 0, 480V SWGR Room equipment, plan sections and details, control building elev. 15'

A219340, Rev 2, Conduit layout control building elevation 15'-0" plan for install of fire dampers.

9321-F-3052, Rev 38, Equipment arrangement control building.

CR IP2-2012-06120

AWC-002

Evaluated by: Nick Crispell

Nick Crispell

Date: 10/9/2012

Stephen Yuan

Step Y

10/9/2012

D Nuta

D Nuta

10/9/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-016

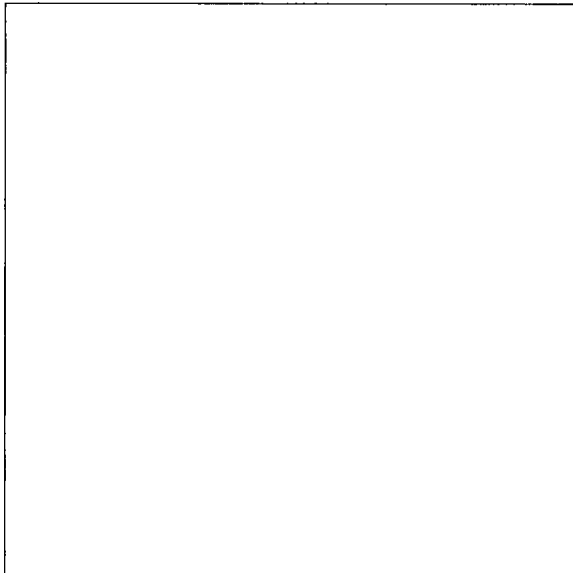
Status: Y N U

Equipment ID No. SST5

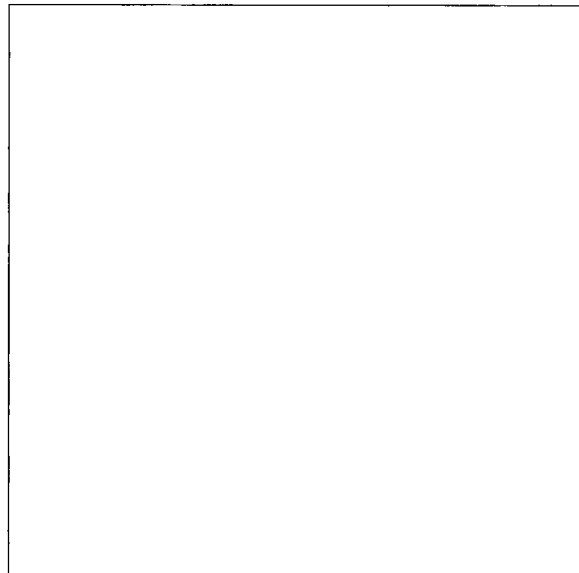
Equip. Class¹ 4

Equipment Description STATION SERVICE TRANSFORMER 5A

Photographs



Note: *Pictures could not be taken while meeting the procedural camera standoff requirement of 6'.*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-017

Equipment ID No. BB8 Equip. Class¹ 4

Equipment Description PRESSURIZER HEATER TRANSFORMER

Location: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Floor coated. No visible cracks.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-017**Equipment ID No. BB8Equip. Class¹ 4Equipment Description PRESSURIZER HEATER TRANSFORMER

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 matches drawing 126811, 206647 and SQUG (SEWS).

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulb could fall out of the light fixture and hit component. Falling bulb would not damage the component because the equipment is protected by a hard case. CR IP2-2012-06120 tracks installation of wires to secure bulb to fixture for good seismic housekeeping.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-017

Equipment ID No. BB8

Equip. Class¹ 4

Equipment Description PRESSURIZER HEATER TRANSFORMER

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

5 holes in both ends for transformer side panel are judged acceptable by walk down team. These holes were judged to be for attaching different components to the case as the holes are high up on the side of the case. Looking through vents there were no internal components in the area of these holes so no bolts in these holes is acceptable.

References:

*Vendor drawing 126811, Matra electric, inc.
9321-F-3052, Rev 38, Equipment arrangement control building
CR IP2-2012-06120
AWC-001*

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-9-2012

Stephen Yuan *Step Y* 10-9-2012

Dan Nuta *Dan Nuta* 10-9-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

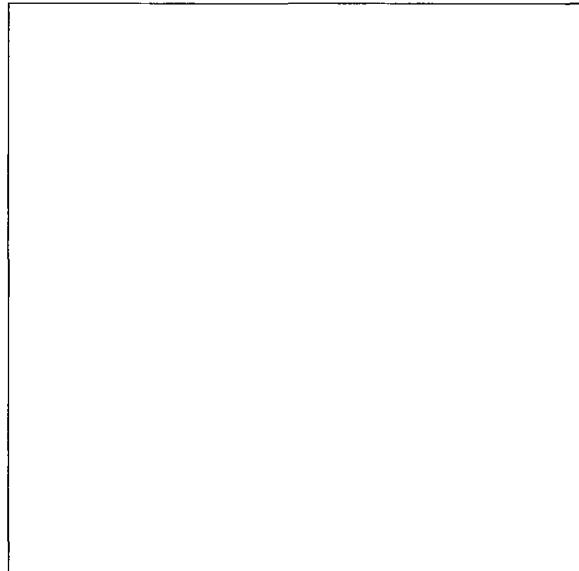
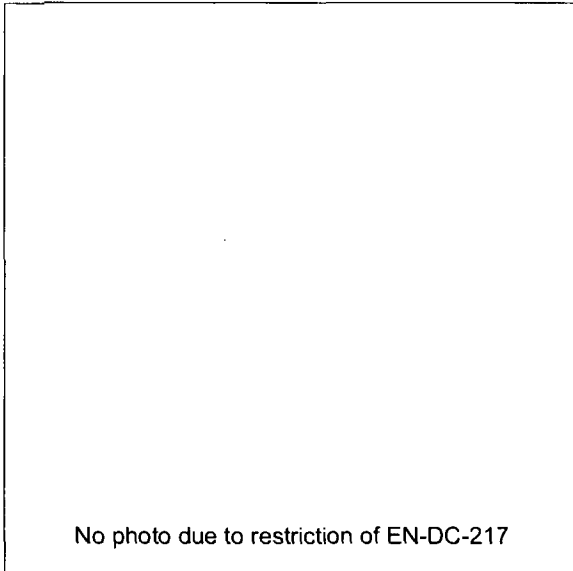
Seismic Walkdown Checklist (SWC) SWEL1-017

Equipment ID No. BB8

Equip. Class¹ 4

Equipment Description PRESSURIZER HEATER TRANSFORMER

Photographs



Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-018**Equipment ID No. BC2Equip. Class¹ 4Equipment Description 480/120 VAC TRANSFORMER #22Location: Bldg. CBFloor El. 33'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Equipment attached to unistrut anchored to a seismicly designed masonry wall. No significant visible cracks in masonry wall.

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. BC2

Equip. Class¹ 4

Equipment Description 480/120 VAC TRANSFORMER #22

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Masonry wall qualified by computech report no. R547.01.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-018

Equipment ID No. BC2

Equip. Class¹ 4

Equipment Description 480/120 VAC TRANSFORMER #22

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings: A206648, Rev 46 Conduit layout control building, elev. 33'-0", plan west half.

A206640, Rev 10, Arrangement of equipment in cable spread room, elev. 33'-0"

AWC-004

Evaluated by: Nick Crispell

Nick Crispell

Date: 10-11-2012

Dan Nuta

Dan Nuta

10-11-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-018

Equipment ID No. BC2

Equip. Class¹ 4

Equipment Description 480/120 VAC TRANSFORMER #22

Photographs



Note: *Transformer BC2*



Note: *Transformer BC2*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-019**Equipment ID No. BB9Equip. Class¹ 4Equipment Description PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMERLocation: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Minor surface corrosion on anchors. Judged acceptable.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-019**Equipment ID No. BB9Equip. Class¹ 4Equipment Description PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMER

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 matches drawing 325413.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulb could fall on equipment. But judged acceptable due to hardened target. CR IP2-2012-06120 tracks installing wire to secure bulb to fixture for good seismic housekeeping.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-019

Equipment ID No. BB9

Equip. Class¹ 4

Equipment Description PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMER

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

West side panel cover has one bolt loose. Missing side panel cover bolt/screw on east panel. Both panels missing washer on some bolts. These issues are acceptable seismicly. CR IP2-2012-06495 issued for tracking.

*References: Drawings and AWC
325413-00, Anchoring of Pressurizer Heater Transformer
A206647, Rev. 15, Indian Point No. 2 conduit layout Control Building elevation 15'-0" plan
9321-F-3052, Rev. 38, Equipment arrangement Control Building
CR IP2-2012-06495
AWC-001*

Evaluated by: Nick Crispell *Nick Crispell* Date: 10/09/2012

Stephen Yuan *Step Y* 10/09/2012

D Nuta *Dragos D. Nuta* 10/09/2012

ATTACHMENT 9.6
Sheet 4 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Seismic Walkdown Checklist (SWC) SWEL1-019

Status: Y N U

Equipment ID No. BB9

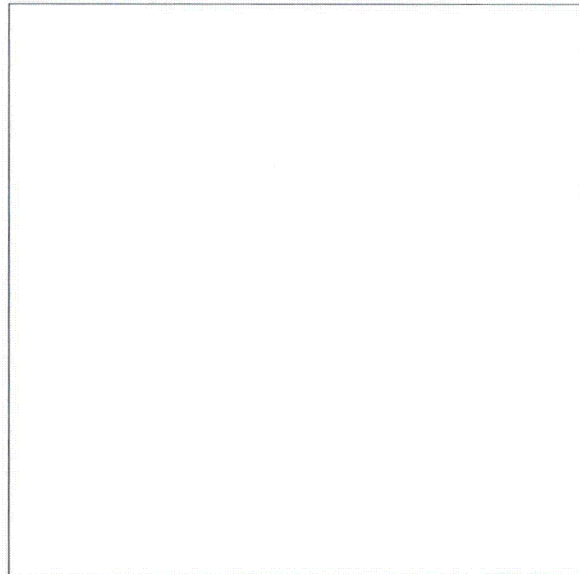
Equip. Class¹ 4

Equipment Description PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMER

Photographs



Note: *PRESSURIZER HEATER BACKUP GROUP #22 TRANSFORMER*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-020Equipment ID No. 0021SIPEquip. Class¹ 5Equipment Description SAFETY INJECTION PUMP 21Location: Bldg. PABFloor El. 59'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-020**Equipment ID No. 0021SIPEquip. Class¹ 5Equipment Description SAFETY INJECTION PUMP 21

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 matches drawing 9321-F-1167.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

One light bulb is blown out near component. This is not a seismic issue Lights Out Hotline (X-7600) was contacted regarding the light out. CR IP2-2012-06581 was also issued.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Seismic Walkdown Checklist (SWC) SWEL1-020

Status: Y N U

Equipment ID No. 0021SIP

Equip. Class¹ 5

Equipment Description SAFETY INJECTION PUMP 21

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
9321-F-1167, Rev 24 (A200107), Primary Auxiliary Building concrete plans at elv. 59' and 68'
9321-F-1166, Rev26 (A200106), Primary Auxiliary Building concrete plans at elv. 15', 35' & 42'
AWC-017
CR IP2-2012-06581*

Evaluated by: Nick Crispell

Nick Crispell

Date: 10/23/2012

Kirit Parikh

K Parikh

10/23/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-020

Equipment ID No. 0021SIP

Equip. Class¹ 5

Equipment Description SAFETY INJECTION PUMP 21

Photographs



Note: 21 Safety injection pump, front view



Note: The motor of the safety injection pump

ATTACHMENT 9.6
Sheet 5 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

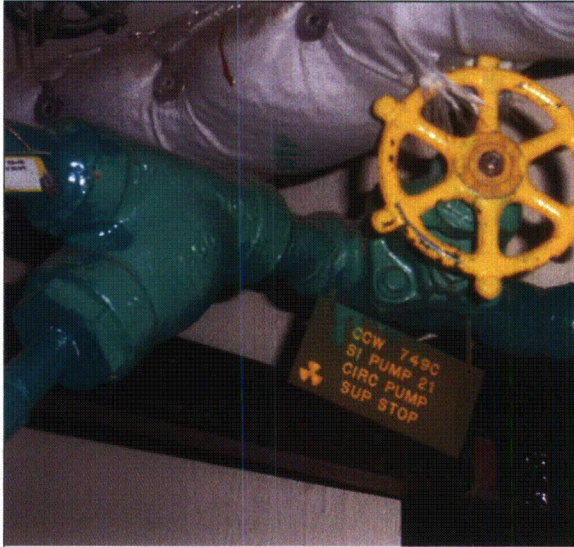
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-020

Equipment ID No. 0021SIP

Equip. Class¹ 5

Equipment Description SAFETY INJECTION PUMP 21



Note: *The handle of the S.I pump and associated pipings.*

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. 21AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 21

Location: Bldg. AFB

Floor El. 18'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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. 21AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 21

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.)

Yes, the anchorage configuration is consistent with plant drawings B227200-1.

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. 21AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 21

Other Adverse Conditions

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

Yes, we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

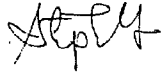
Comments (Additional pages may be added as necessary)

The panel attached to the pump is not required to be opened due to the number of bolts closing the cover. The inside of the panel therefore is not inspected.

References: Drawings and AWC

1. SQUG 0021AFP
2. DWG 9321-F-2014, Rev12 Auxiliary Feed Pump Building General Arrangement Sheet No. 1
3. DWG B227200, Rev 1, Auxiliary Boiler Feed Pumps #21 and #23
4. AWC-035

Evaluated by: Stephen Yuan



Date: 10/25/2012

Paul Huebsch



Date: 10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-021

Equipment ID No. 21AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 21

Photographs



Note: *AUX FEED PUMP NO. 21*



Note: *EQUIPMENT TAG*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-021

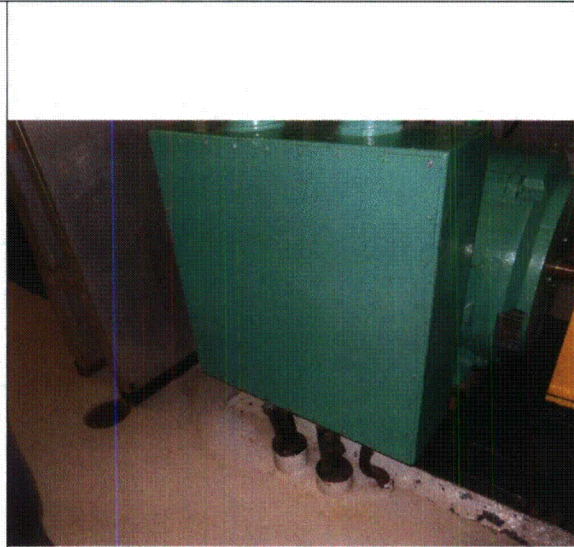
Equipment ID No. 21AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 21



Note: ANCHOR BOLT CLOSE UP VIEW



Note: THE PANEL ATTACHING TO THE PUMP CANN'T BE OPENED. INSIDE OF THE PANEL IS NOT INSPECTED.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. 0022AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 22

Location: Bldg. AF

Floor El. 18'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes, the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Grout at one anchor bolt is chipped off to the edge of the base plate leaving approximately 1½" edge distance for the anchor bolt (See photo). Since the grout does not contribute to the pullout cone this is not of consideration for bolt tension. Further, the grout is not considered to contribute to shear capacity and the embedment of the cast-in anchor bolt into the floor does not show evidence of cracking. Therefore, the absence of the grout is not a seismic concern.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 6

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-022**Equipment ID No. 0022AFPEquip. Class¹ 5Equipment Description AUX FEED PUMP NO. 22

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.)

Yes, the anchorage configuration is consistent with plant drawings B227200-1.

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

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

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 6

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. 0022AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 22

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

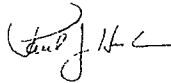
1. SQUG 0022AFP
2. DWG 9321-F-1208, Rev8, Shield Wall Area, Concrete plan EL. 18'-6"
3. B208484, Rev 3, Auxiliary Building Feed Pump #22 Balancing Chamber Pressure Tap
4. B2279770, Rev 0, Physical Protectors for Aux Boiler Feed Pumps #21, #22, #23 and Valve 846
5. DWG 9321-F-2014, Rev12, AFPB General Arrangement, Plan - SHT. NO 1
6. AWC-035

Evaluated by: Stephen Yuan



Date: 10/25/12

Paul Huebsch



10/25/12

ATTACHMENT 9.6
Sheet 4 of 6

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Seismic Walkdown Checklist (SWC) SWEL1-022

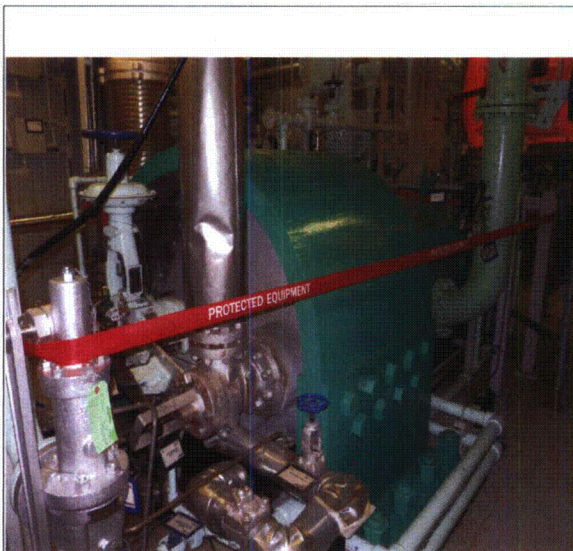
Status: Y N U

Equipment ID No. 0022AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 22

Photographs



Note: AUX FEED PUMP NO. 22



Note: Grout around one anchor bolt is chipped off on one side

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 6

IP2

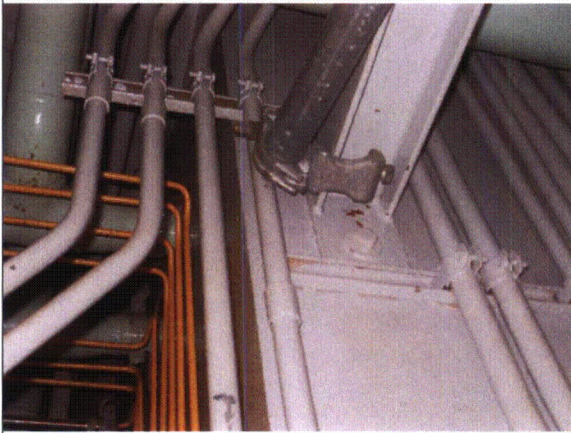
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-022

Equipment ID No. 0022AFP

Equip. Class¹ 5

Equipment Description AUX FEED PUMP NO. 22



Note: One of the scaffold supports is pointing to the conduit.



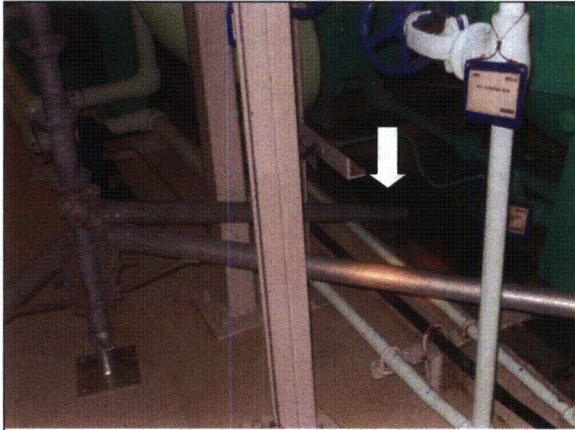
Note: One of the scaffold supports is pointing to the base of nitrogen rack.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 6 of 6

IP2



Note: *One of the supports is braced to the base of the pump*

Empty rectangular box for notes or observations.

Note:

Empty rectangular box for notes or observations.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-023Equipment ID No. 0023CCPEquip. Class¹ 5Equipment Description CCW PUMP NO. 23Location: Bldg. PABFloor El. 68'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

¹ Enter the equipment class name from EPR1 1025286. Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. 0023CCP

Equip. Class¹ 5

Equipment Description CCW PUMP NO. 23

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 matches drawing 9321-F-1167 & 9321-F-1166.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fluorescent bulbs need wire restraint to prevent bulbs from falling during a seismic event. CR IP2-2012-6614 was issued to track resolution. This is not a seismic issue if the fluorescent bulbs were to fall they would not render the hard target CCW Pump inoperable.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. 0023CCP

Equip. Class¹ 5

Equipment Description CCW PUMP NO. 23

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References:

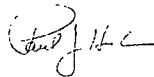
*9321-F-20143, (A201813), Rev 9 Auxiliary feed pump building general arrangement plans Sht. 1
 9321-F-1167, (A200107), Rev 24, Primary Auxiliary building concrete, plans at elev. 59' & 68'.
 9321-F-1166, (A200106), Rev 26 Primary Auxiliary building concrete, plans at elev. 15', 35' & 42'
 CR IP2-2012-6614
 AWC-018*

Evaluated by: Nick Crispell



Date: 10/19/2012

Paul Huebsch



10/19/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

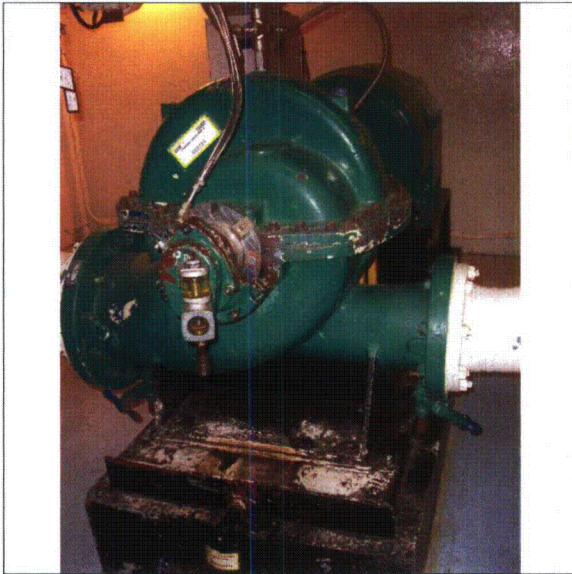
Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. 0023CCP

Equip. Class¹ 5

Equipment Description CCW PUMP NO. 23

Photographs



Note: *CCW Pump*



Note: *CCW Pump*

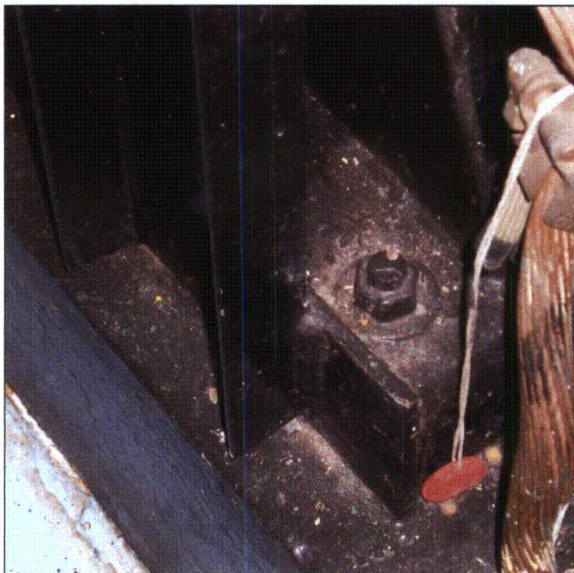
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-023

Equipment ID No. 0023CCP

Equip. Class¹ 5

Equipment Description CCW PUMP NO. 23



Note: Typical anchorage



Note: Typical anchorage

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-024

Equipment ID No. 21CLWP

Equip. Class¹ 5

Equipment Description 21 I/A CMPR CL COOLING WTR PMP

Location: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Minor surface corrosion on anchor bolts. Not significant.

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

Concrete coated. No significant cracking observed.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-024Equipment ID No. 21CLWPEquip. Class¹ 5Equipment Description 21 I/A CMPR CL COOLING WTR PMP

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

The masonry brick wall was seismic qualified by Computech Report no. R547.01.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-024

Status: Y N U

Equipment ID No. 21CLWP

Equip. Class¹ 5

Equipment Description 21 I/A CMPR CL COOLING WTR PMP

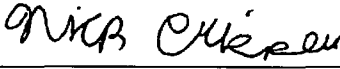
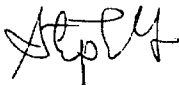
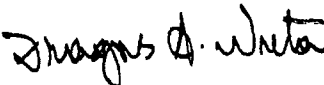
Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References:
 SQUG (SEWS)
 AWC-001

Evaluated by: <u>Nick Crispell</u>		Date: <u>10-9-2012</u>
<u>Stephen Yuan</u>		<u>10-9-2012</u>
<u>Dan Nuta</u>		<u>10-9-2012</u>

Seismic Walkdown Checklist (SWC) SWEL1-024

Status: Y N U

Equipment ID No. 21CLWP

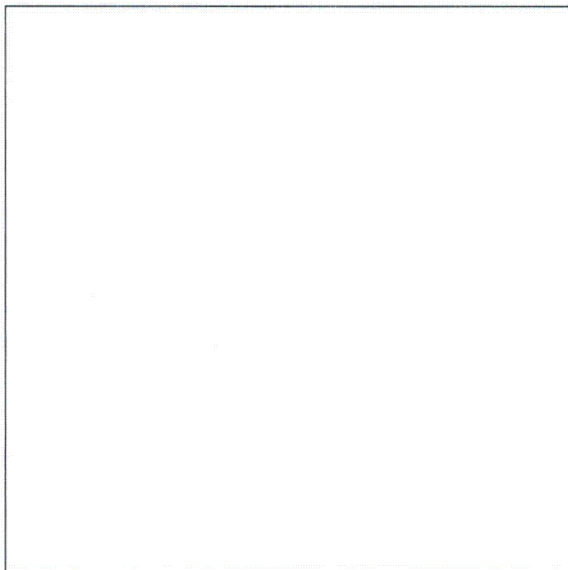
Equip. Class¹ 5

Equipment Description 21 I/A CMPR CL COOLING WTR PMP

Photographs



Note: 21 I/A COMPRESSOR CLOSING COOLING WATER PUMP (RIGHT)



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. 21BATP

Equip. Class¹ 5

Equipment Description BORIC ACID TRANSFER PUMP 21

Location: Bldg. PAB Floor El. 80'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No, the anchorage configuration verification is not required. The base plate has 4 bolts and only 2 are visible. The other 2 are hidden under the lead shielding.

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

Yes the anchorage is free of bent, broken, missing or loose hardware for the visible bolts.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation for the visible bolts. Since the bolts appear to be stainless steel, it is doubtful that the hidden bolts would have any corrosion.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

Seismic Walkdown Checklist (SWC) SWEL1-025

Status: Y N U

Equipment ID No. 21BATP

Equip. Class¹ 5

Equipment Description BORIC ACID TRANSFER PUMP 21

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. 21BATP

Equip. Class¹ 5

Equipment Description BORIC ACID TRANSFER PUMP 21

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References:

Drawings:

9321-F-1168, Rev. 29, Primary Auxiliary Building Concrete Floor Plan at EL. 80'-0"

B228653, Rev. 1, Replacement Boric Acid Transfer Pumps No. 21 & 22

9321-F-2510, Rev. 49, Primary Auxiliary Building General Arrangement Plans

SQUG (SEWS)

AWC-022

Evaluated by: Nick Crispell



Date: 10/19/2012

Paul Huebsch



10/19/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-025

Equipment ID No. 21BATP

Equip. Class¹ 5

Equipment Description BORIC ACID TRANSFER PUMP 21

Photographs



Note: *View of pump*



Note: *View of pump*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-025

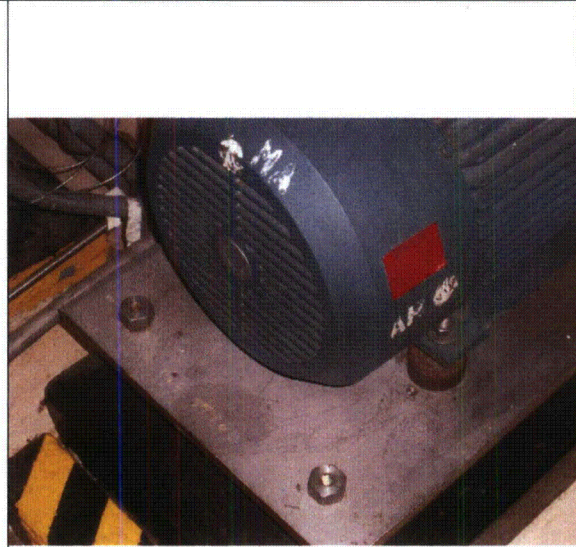
Equipment ID No. 21BATP

Equip. Class¹ 5

Equipment Description BORIC ACID TRANSFER PUMP 21



Note: *Anchor bolt at motor*



Note: *Anchor bolts at motor*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 6

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-026

Equipment ID No. 0023CHP

Equip. Class¹ 5

Equipment Description NO. 23 CHARGING PUMP

Location: Bldg. PAB Floor El. 80'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 6

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-026

Equipment ID No. 0023CHP

Equip. Class¹ 5

Equipment Description NO. 23 CHARGING PUMP

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

Yes, the anchorage configuration is consistent with plant calculation IP-CALC-04-01180.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

The masonry wall is qualified by Computech report R547.01.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 6

IP2

Seismic Walkdown Checklist (SWC) SWEL1-026

Status: Y N U

Equipment ID No. 0023CHP

Equip. Class¹ 5

Equipment Description NO. 23 CHARGING PUMP

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References:

A207647, Rev 5, Hanger location, install of suction stabilizers and pulsation dampeners for charging pump 21,22 and 23

Calc no. IP-CALC-04-01180.

AWC-021

Evaluated by: Nick Crispell



Date: 10/19/2012

Paul Huebsch



10/19/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 6

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-026

Equipment ID No. 0023CHP

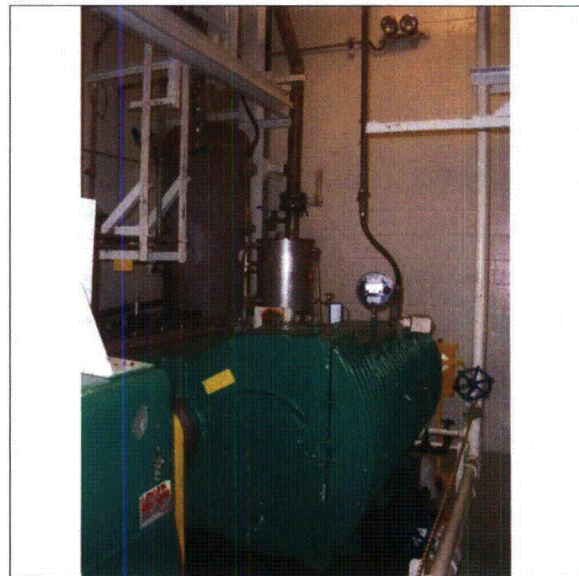
Equip. Class¹ 5

Equipment Description NO. 23 CHARGING PUMP

Photographs



Note: *View of pump*



Note: *View of pump*

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-026

Equipment ID No. 0023CHP

Equip. Class¹ 5

Equipment Description NO. 23 CHARGING PUMP



Note: View of piping in room



Note: Ductwork above pump



Note: Anchor bolt detail



Note: Anchor bolt

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 6

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-027**Equipment ID No. 21CSPEquip. Class¹ 5Equipment Description CONTAINMENT SPRAY PUMP 21Location: Bldg. PABFloor El. 68'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 6

IP2

Status: Y N USeismic Walkdown Checklist (SWC) SWEL1-027Equipment ID No. 21CSPEquip. Class¹ 5Equipment Description CONTAINMENT SPRAY PUMP 21

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.)

Yes, the anchorage configuration is consistent with plant drawings 9321-F-1167 & 9321-F-1166.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Scaffold overhead is marked unsafe per scaffold tag 866B. It is not braced well in the east/west direction and would impact valve if it collapses or sways during a seismic event. CR IP2-2012-06578 was issued to resolve.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

No as scaffolding over top of valve is likely to collapse onto valve during a seismic event.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 6

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-027

Equipment ID No. 21CSP

Equip. Class¹ 5

Equipment Description CONTAINMENT SPRAY PUMP 21

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings: 9321-F-1166, (A200106) Rev 26, Primary Auxiliary building concrete, plans at elevation 15', 35' & 42'.

9321-F-1167, (A 200107), Rev 24, Primary Auxiliary building concrete plans at elevations 59', and 68'.

AWC-019

Evaluated by: Nick Crispell



Date: 10/19/2012

Paul Huebsch



10/19/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 6

IP2

Status: Y N U

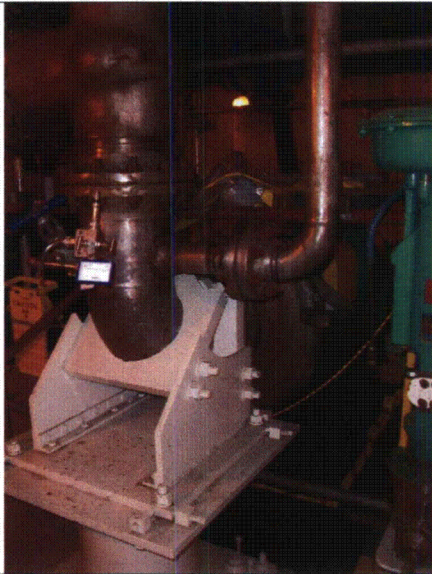
Seismic Walkdown Checklist (SWC) SWEL1-027

Equipment ID No. 21CSP

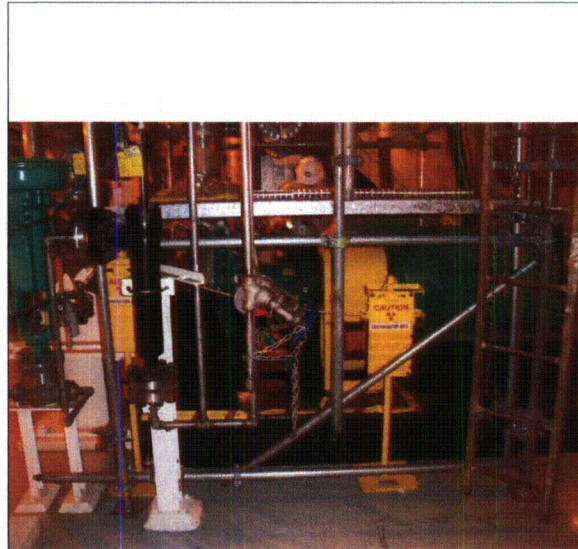
Equip. Class¹ 5

Equipment Description CONTAINMENT SPRAY PUMP 21

Photographs



Note: *Pipe Support*



Note: *Scaffold over pump*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 6

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-027

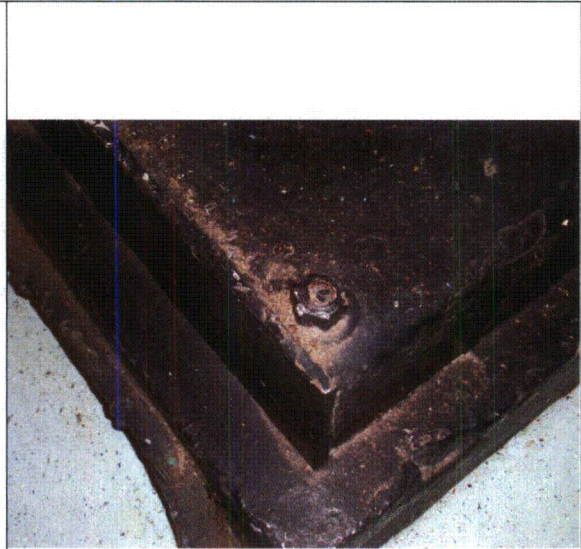
Equipment ID No. 21CSP

Equip. Class¹ 5

Equipment Description CONTAINMENT SPRAY PUMP 21



Note: Scaffold over pump



Note: Anchor bolt

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-027

Equipment ID No. 21CSP

Equip. Class² 5

Equipment Description CONTAINMENT SPRAY PUMP 21



Note: Pump



Note: Scaffold Red tag #866B

² Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-028**Equipment ID No. 21RHRPEquip. Class¹ 6Equipment Description RHR PUMP NO. 21Location: Bldg. PABFloor El. 15'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-028

Equipment ID No. 21RHRP

Equip. Class¹ 6

Equipment Description RHR PUMP NO. 21

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 matches the drawing A200106.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Masonry wall exists on west side of the RHR Pump 21. The wall is qualified per SQUG (SEWS)

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-028

Equipment ID No. 21RHRP

Equip. Class¹ 6

Equipment Description RHR PUMP NO. 21

Other Adverse Conditions

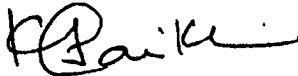
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Comments (Additional pages may be added as necessary)

*Reference Drawings & AWC
A200106, Rev 26, Primary Auxiliary building, plan at elev. 15'-0"
AWC-026*

Evaluated by: Kirit Parikh



Date: 10/23/2012

Nick Crispell



10/23/2012

ATTACHMENT 9.6
Sheet 4 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-028

Equipment ID No. 21RHRP

Equip. Class¹ 6

Equipment Description RHR PUMP NO. 21

Photographs



Note: Front view of the pump no 21



Note: Corner view of the pump

ATTACHMENT 9.6
Sheet 5 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-028

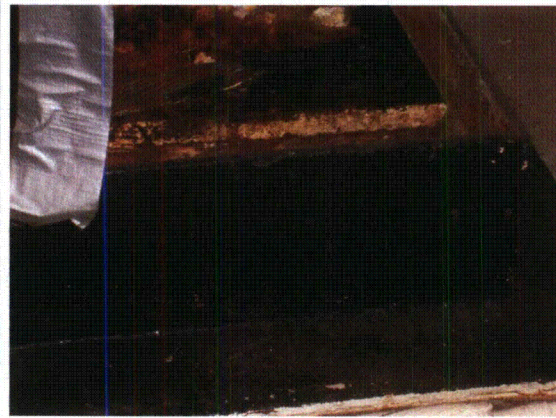
Equipment ID No. 21RHRP

Equip. Class¹ 6

Equipment Description RHR PUMP NO. 21



Note: connections to the pump 21



Note: Anchor Bolt of the pump.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-029**Equipment ID No. 0022RHRPEquip. Class¹ 6Equipment Description RHR PUMP NO. 22Location: Bldg. PABFloor El. 15'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U**Seismic Walkdown Checklist (SWC) SWEL1-029**Equipment ID No. 0022RHRPEquip. Class¹ 6Equipment Description RHR PUMP NO. 22

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 anchorage configuration verification is required.)

Anchorage matches the drawing A200106.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Masonry wall exists near the RHR Pump about 4' away. The wall is qualified per SQUG (SEWS)

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

Yes attached lines have adequate flexibility to avoid damage.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-029

Equipment ID No. 0022RHRP

Equip. Class¹ 6

Equipment Description RHR PUMP NO. 22

Other Adverse Conditions

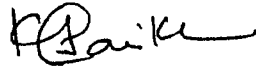
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References:
 A200106, Rev 26, Auxiliary building, plan details at elev. 15'-0"
 SQUG (SEWS)
 AWC-027

Evaluated by: Kirit Parikh



Date: 10/23/2012

Nick crispell



10/23/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-029

Equipment ID No. 0022RHRP

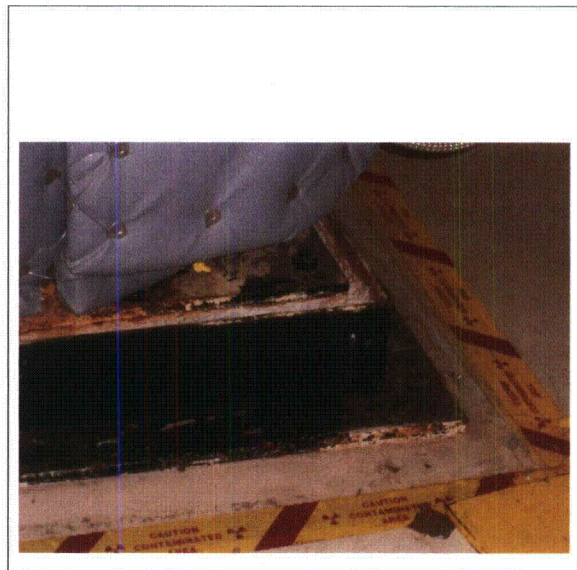
Equip. Class¹ 6

Equipment Description RHR PUMP NO. 22

Photographs



Note: *Front view of the pump*



Note: *Anchor Bolts of the pump*

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-029

Equipment ID No. 0022RHRP

Equip. Class¹ 6

Equipment Description RHR PUMP NO. 22



Note: Anchor Bolt view of the pump



Note: Wheel and the body of the pump

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. 0022SWP

Equip. Class¹ 6

Equipment Description 22 SERVICE WATER PUMP

Location: Bldg. INTAKE Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

2 of the anchor bolts are flush with the nuts. Judged acceptable.

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

Minor surface rust. Judged acceptable.

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

Floor is coated with approximately 2" of epoxy. Coating is flaking and chipping. No significant cracking observed.

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. 0022SWP

Equip. Class¹ 6

Equipment Description 22 SERVICE WATER PUMP

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

Anchorage is consistent with SQUG (SEWS).

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Near by fence judged adequate for seismic loading by comparison to the wind loads.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. 0022SWP

Equip. Class¹ 6

Equipment Description 22 SERVICE WATER PUMP

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings:

SQUG (0022SWP)

AWC-014

Evaluated by: Nick Crispell

Nick Crispell

Date: 10-17-2012

Dan Nuta

Dan Nuta

10-17-2012

ATTACHMENT 9.6
Sheet 4 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

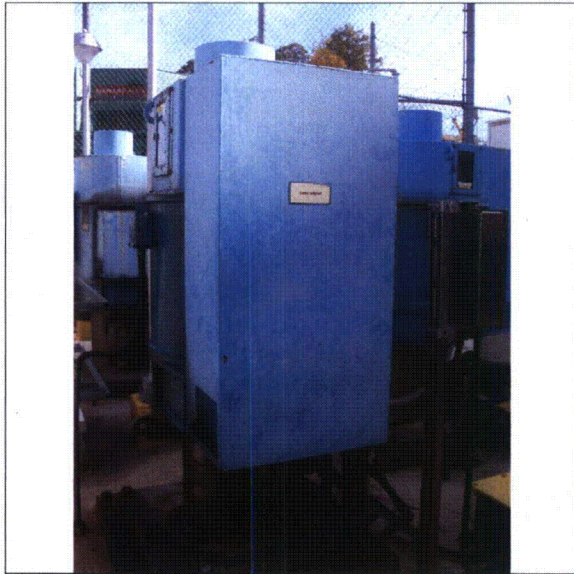
Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. 0022SWP

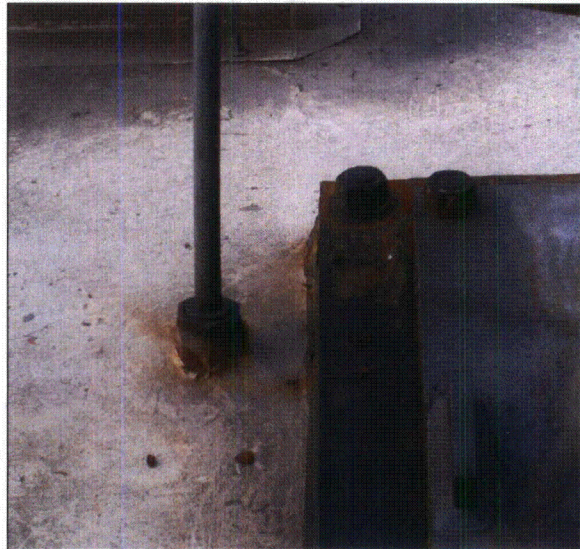
Equip. Class¹ 6

Equipment Description 22 SERVICE WATER PUMP

Photographs



Note: 22SWP



Note: Typical anchorage.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

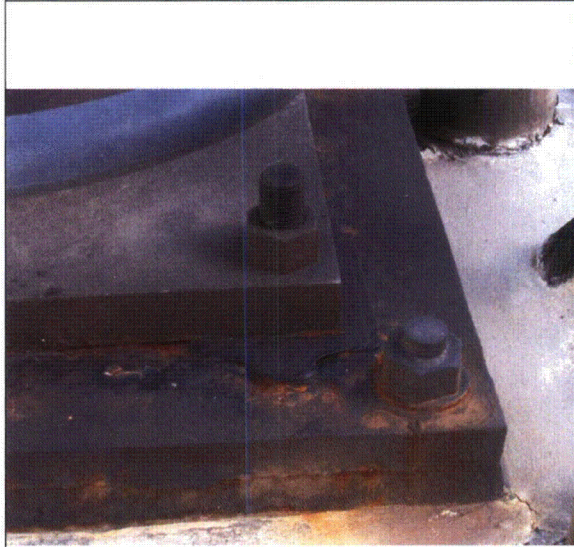
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-030

Equipment ID No. 0022SWP

Equip. Class¹ 6

Equipment Description 22 SERVICE WATER PUMP



Note: Typical anchorage.



Note: Typical anchorage.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. 0026SWP

Equip. Class¹ 6

Equipment Description 26 SERVICE WATER PUMP

Location: Bldg. INTAKE Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Minor surface corrosion. Judged acceptable.

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

Floor is coated with approximately 2 inches of epoxy coating. Epoxy coating is chipping, flaking, and has hair line cracks. No significant visible cracks to suggest concrete was cracked below epoxy. Judged acceptable.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-031**Equipment ID No. 0026SWPEquip. Class¹ 6Equipment Description 26 SERVICE WATER PUMP

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

Anchorage is consistent with SQUG (SEWS).

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Fence posts shows corrosion on baseplate. Judged acceptable.

Fence post and baseplate judged adequate for seismic loading by comparison to the wind loads.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. 0026SWP

Equip. Class¹ 6

Equipment Description 26 SERVICE WATER PUMP

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

No tag on the pump. CR IP2-2012-06546 issued to tag the pump.

References: Drawings and AWC.

Drawings: A227488, Rev 2, Intake structure location of service water pipe welds.

AWC-014

Evaluated by: Nick Crispell

Nick Crispell

Date: 10-17-2012

Dan Nuta

Dan Nuta

10-17-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-031

Equipment ID No. 0026SWP

Equip. Class¹ 6

Equipment Description 26 SERVICE WATER PUMP

Photographs



Note: 26 Service Water Pump



Note: Typical anchor bolt.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

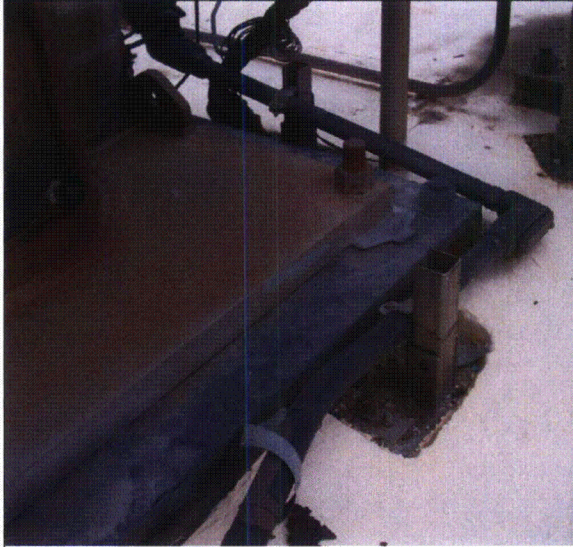
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-031

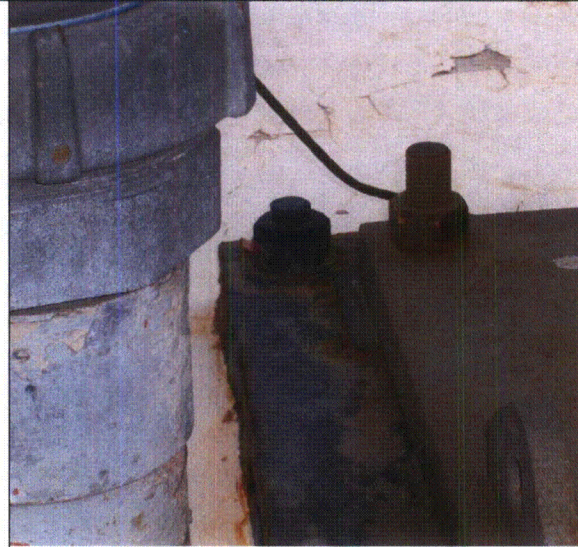
Equipment ID No. 0026SWP

Equip. Class¹ 6

Equipment Description 26 SERVICE WATER PUMP



Note: *Typical anchor bolt.*



Note: *Typical anchor bolt.*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-032Equipment ID No. 0023FOTPEquip. Class¹ 6Equipment Description FUEL OIL TRANSFER PUMP D.G. 23Location: Bldg. FOSTFloor El. 77'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Anchorage is to a steel pipe riser not to concrete.

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. 0023FOTP

Equip. Class¹ 6

Equipment Description FUEL OIL TRANSFER PUMP D.G. 23

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Ground wire conduit & pump power conduit close to pump flange. Acceptable given rigidity of pump and conduits.

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

The overhead pipe near the roof line of the EDG building is supported on three wide flange columns. These columns are supported on baseplates with some nuts not fully engaged. Typical of all three baseplates. LB-02 was performed to analyze the condition.

The high voltage transmission tower located east of the valve is judged by walk down team to be seismically acceptable compared to wind and icing loads.

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

Yes attached lines have adequate flexibility to avoid damage.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-032

Equipment ID No. 0023FOTP

Equip. Class¹ 6

Equipment Description FUEL OIL TRANSFER PUMP D.G. 23

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

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

Other Adverse Conditions

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

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

Comments (Additional pages may be added as necessary)

Cover plates on pump is missing 2 of 8 screws. Typical for both cover plates on pump. While seismically acceptable, new screws must be installed to prevent water intrusion. See photo below. CR IP2-2012-06383 issued to track resolution.

Sealant on end of ground wire conduit for the Fuel Oil Transfer Pump D.G. 23 is not adequate to seal the conduit against water intrusion. While this is not a seismic concern, the conduit should be properly sealed. CR IP2-2012-06383 issued to track resolution.

References: Drawings and AWC

Drawings: 9321-F-22513(A-202024), Rev 9, Diesel generator building general arrangement elevations.

AWC-012

Evaluated by: Nick Crispell

Nick Crispell

Date: 10-16-2012

Dan Nuta

Dan Nuta

10-16-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-032

Equipment ID No. 0023FOTP

Equip. Class¹ 6

Equipment Description FUEL OIL TRANSFER PUMP D.G. 23

Photographs



Note: Fuel Oil Transfer Pump



Note: Cover plate missing 2 of 8 screws.

ATTACHMENT 9.6
Sheet 5 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-032

Equipment ID No. 0023FOTP

Equip. Class¹ 6

Equipment Description FUEL OIL TRANSFER PUMP D.G. 23

	
<p>Note: <i>Insulation damaged on discharge from Fuel Oil Transfer Pump.</i></p>	<p>Note:</p>

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-034

Equipment ID No. PCV-1310A Equip. Class¹ 7

Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

Location: Bldg. AFB Floor El. 43'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Valve is in-line however the actuator has a spring can support, for which support was inspected.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Concrete around floor penetration has about 6 cracks. They are thermal cracks. Judged acceptable.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-034**Equipment ID No. PCV-1310AEquip. Class¹ 7Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A

(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-034

Equipment ID No. PCV-1310A

Equip. Class¹ 7

Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings: 9321-F-2125, Rev 24, (A200450), Auxiliary feed pump building, turbine supply & exhaust piping plans and sections.

9321-H-23613, Rev 0, Auxiliary building feed pump turbine steam supply equilizing lines around control valves PCV-1310A and PCV 1310-B

AWC-010

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-12-2012

Stephen Yuan *Step Y* 10-12-2012

Status: Y N U

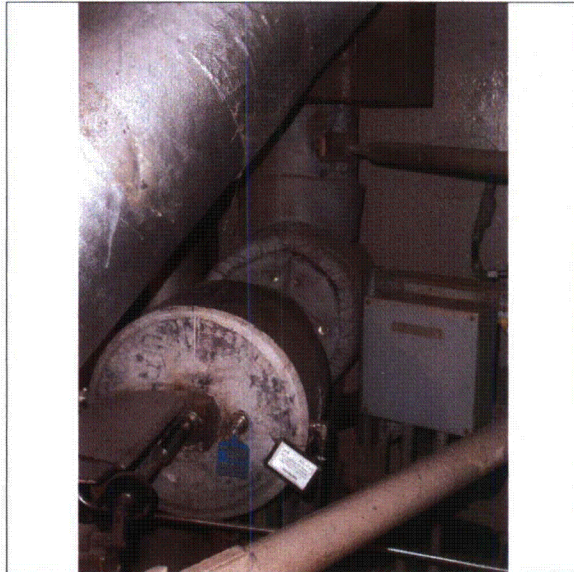
Seismic Walkdown Checklist (SWC) SWEL1-034

Equipment ID No. PCV-1310A

Equip. Class¹ 7

Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

Photographs



Note:
*AUX FEEDWATER PUMP 22 TURB
STEAM SUPPLY SHUT-OFF VALVE*



Note:
*THE IN-LINE MOTOR OPERATED VALVE,
ACTUATOR HAS SPRING CAN SUPPORT*

ATTACHMENT 9.6
Sheet 5 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-034

Equipment ID No. PCV-1310A

Equip. Class¹ 7

Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE



Note:

CONCRETE AROUND FLOOR PENETRATION HAS ABOUT 6 CRACKS. IT IS APEAR TO BE THERMAL CRACKS

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-035**Equipment ID No. PCV-1310BEquip. Class¹ 7Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVELocation: Bldg. AFBFloor El. 32'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No, the anchorage configuration verification is not required.

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

Valve is in line. Actuator is supported on a spring can.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U**Seismic Walkdown Checklist (SWC) SWEL1-035**Equipment ID No. PCV-1310BEquip. Class¹ 7Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

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

Not applicable since is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. PCV-1310B

Equip. Class¹ 7

Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Fluorescent bulbs in area needs to be secured to light fixture by wires. Bulb falling would not pose a seismic operability issue for this component given location of bulbs and target. CR IP2-2012-06485 is issued to track resolution.

References: Drawings and AWC.

Drawings: 9321-L-60825, Rev 6, Pipe support details sht.26

9321-F-21253, (A201324) Rev 13, Auxiliary feed pump building turbine supply and exhaust piping plans and sections.

9321-H-23613, Rev 0, Auxiliary feed pump building turbine steam supply equalizing lines around control valves PCV 1310A and PCV 1310 B

9321-F-2125, (A200450,) Rev 24, Auxiliary feed pump building turbine supply and exhaust piping plans and sections.

AWC-009

Evaluated by: Nick Crispell *Nick Crispell* Date: 10/12/12

Stephen Yuan *Step Y* 10/12/12

Status: Y N U

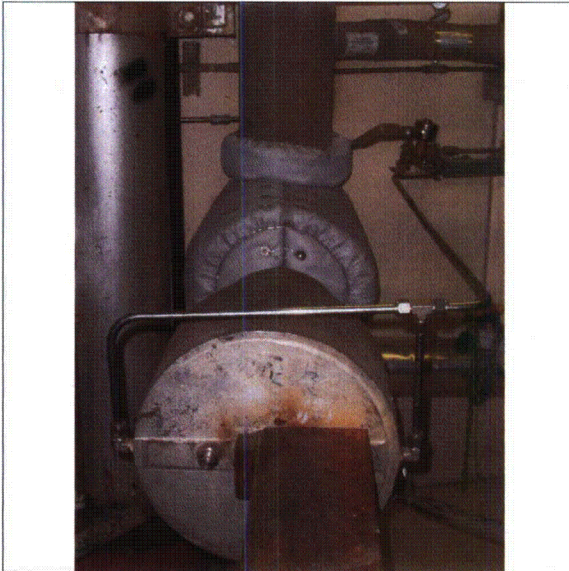
Seismic Walkdown Checklist (SWC) SWEL1-035

Equipment ID No. PCV-1310B

Equip. Class¹ 7

Equipment Description AUX FEEDWATER PUMP 22 TURB STEAM SUPPLY SHUT-OFF VALVE

Photographs



Note:

PCV-1310B



Note:

PCV-1310B ACTUATOR AND SUPPORT

ATTACHMENT 9.6
Sheet 1 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-036

Equipment ID No. FCV-1176

Equip. Class¹ 7

Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

Location: Bldg. EDG Floor El. 67'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No anchorage check. In-line valve.

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

Not applicable since it is an in-line valve.

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

Not applicable since it is an in-line valve.

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

Not applicable since it is an in-line valve.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-036Equipment ID No. FCV-1176Equip. Class¹ 7Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

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.)

Not applicable since component is an in-line valve.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Scaffolding nearby has been engineering evaluated per scaffolding tag signoffs. Judged to be seismically adequate.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-036

Equipment ID No. FCV-1176

Equip. Class¹ 7

Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Minor surface corrosion observed in valves, pipes, and steel components. Judged acceptable.

References:

9321-F-2257, Rev 47, (A200600), Diesel generator building cooling water piping river water system.

9321-F-2722, Rev 126, Flow diagram service water system nuclear steam supply.

Vendor drawing no. R-000853-1, Rev C

AWC-011

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-16-2012

Stephen Yuan *Steph Y* 10-16-2012

Dan Nuta *Dan Nuta* 10-16-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

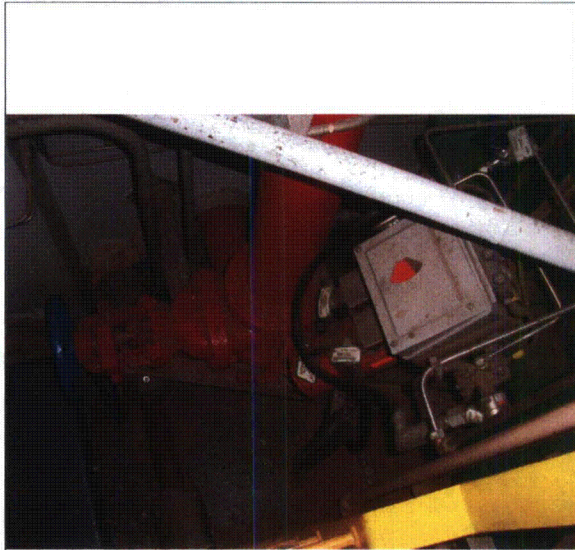
Seismic Walkdown Checklist (SWC) SWEL1-036

Equipment ID No. FCV-1176

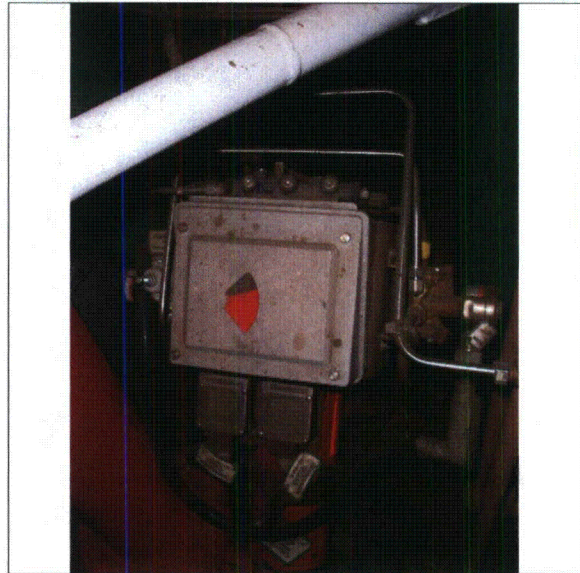
Equip. Class¹ 7

Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

Photographs



Note: Jacket water cooler return flow control valve.



Note: Jacket water cooler return flow control valve.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-037**Equipment ID No. FCV-1176A Equip. Class¹ 7Equipment Description JACKET WTR COOLER RET FLOW CTRL VLVLocation: Bldg. EDG Floor El. 67'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No anchorage check. The valve is a in-line valve.

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

No anchorage check. The valve is a in-line valve.

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

No anchorage check. The valve is a in-line valve.

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

No anchorage check. The valve is a in-line valve.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-037**Equipment ID No. FCV-1176AEquip. Class¹ 7Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

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.)

Not applicable since component is an in-line valve.

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.***Interaction Effects**

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Scaffolding near by has been engineering evaluated per scaffolding tag signoffs. Judged to be seismically adequate.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-037

Equipment ID No. FCV-1176A

Equip. Class¹ 7

Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Minor surface corrosion observed in valves, pipes, and steel components. Judged acceptable.

References:

9321-F-2257, Rev 47, (A200600), Diesel generator building cooling water piping river water system.

9321-F-2722, Rev 126, Flow diagram service water system nuclear steam supply.

Vendor drawing no.R-000853-1 Rev C.

AWC-011

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-16-2012

Stephen Yuan *Step Y* 10-16-2012

Dan Nuta *Dan Nuta* 10-16-2012

ATTACHMENT 9.6
Sheet 4 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

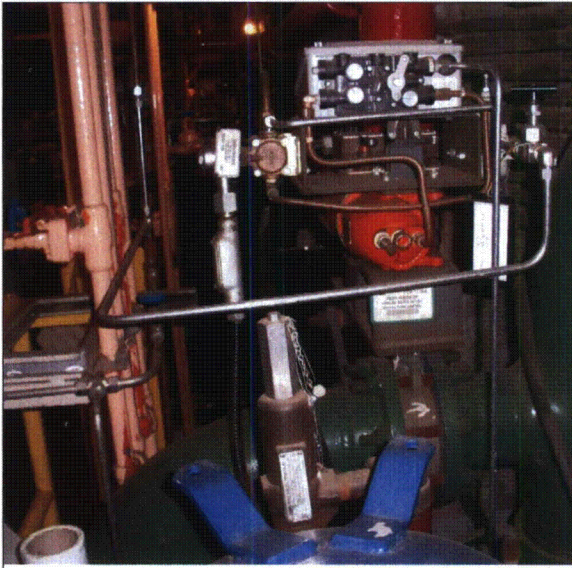
Seismic Walkdown Checklist (SWC) SWEL1-037

Equipment ID No. FCV-1176A

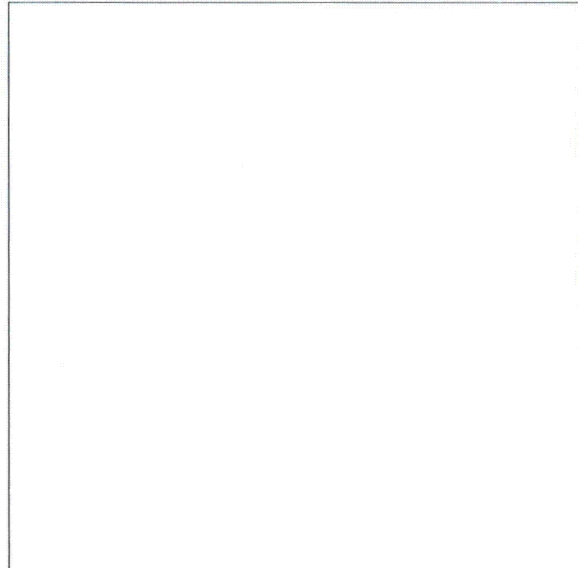
Equip. Class¹ 7

Equipment Description JACKET WTR COOLER RET FLOW CTRL VLV

Photographs



Note: *Jacket water cooler return flow control valve.*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-038**Equipment ID No. 250AEquip. Class¹ 8Equipment Description 21 RCP SEAL INJ LINE ISO VLVLocation: Bldg. PPEN & MEZZFloor El. 51'-0" & 67'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

The Valve is a motor operated valve. The motor operator is anchored on floor elevation 67'6" and the valve is on elevation 51'. Both motor operator and valve were inspected for this component.

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-038**Equipment ID No. 250AEquip. Class¹ 8Equipment Description 21 RCP SEAL INJ LINE ISO VLV

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

The anchorage configuration matches drawings A208690-4 Rev 04,

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-038

Equipment ID No. 250A

Equip. Class¹ 8

Equipment Description 21 RCP SEAL INJ LINE ISO VLV

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

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

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References:
A208690 Rev 04, Addition of Motor Operators for valves No's. 205, 958, 869 A&B, 250 A, B, C, & D.
02-403-0012, Rev. 3, Motor Operations for Cont. Isol Valves M.O. For Valves 250A-D, 205.
SQUG (SEWS)
AWC-028, and AWC-029*

Evaluated by: Kirit Parikh  Date: 10/24/2012

Nick Crispell  10/24/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-038

Equipment ID No. 250A

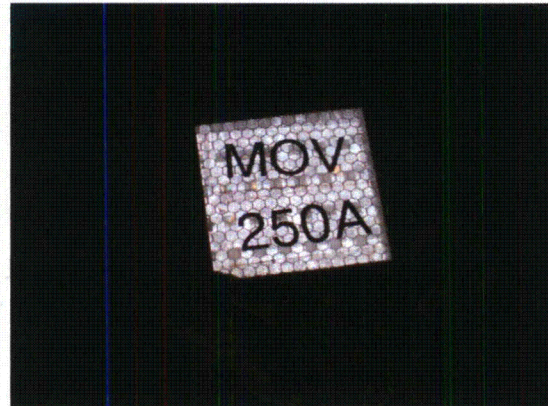
Equip. Class¹ 8

Equipment Description 21 RCP SEAL INJ LINE ISO VLV

Photographs



Note: *Valve anchorage at elevation 67'*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-038

Equipment ID No. 250A

Equip. Class¹ 8

Equipment Description 21 RCP SEAL INJ LINE ISO VLV



Note: Valve overhead area



Note: Area around the valve

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-039Equipment ID No. SWN-51-1AEquip. Class¹ 8Equipment Description 21 FCU OUTLET SAMPLE ISO VALVELocation: Bldg. MEZZFloor El. 67'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Mild corrosion both on plate and the anchor bolts. Judged not to be a seismic concern.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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. SWN-51-1A

Equip. Class¹ 8

Equipment Description 21 FCU OUTLET SAMPLE ISO VALVE

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

The anchorage configuration matches drawing A208160-12-SR-51-1A Rev 0.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-039

Equipment ID No. SWN-51-1A

Equip. Class¹ 8

Equipment Description 21 FCU OUTLET SAMPLE ISO VALVE

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

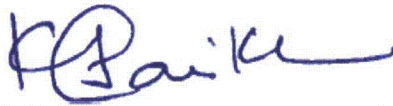
References:

A208160, Rev. 04, Arrg't of Motor Operated Valves in Service Water Sample Lines to Radiation Monitor

12-SR-51-1A, Rev 0, Support

AWC-028

Evaluated by: Kirit Parikh



Date: 10/24/2012

Nick Crispell



10/24/2012

Status: Y N U

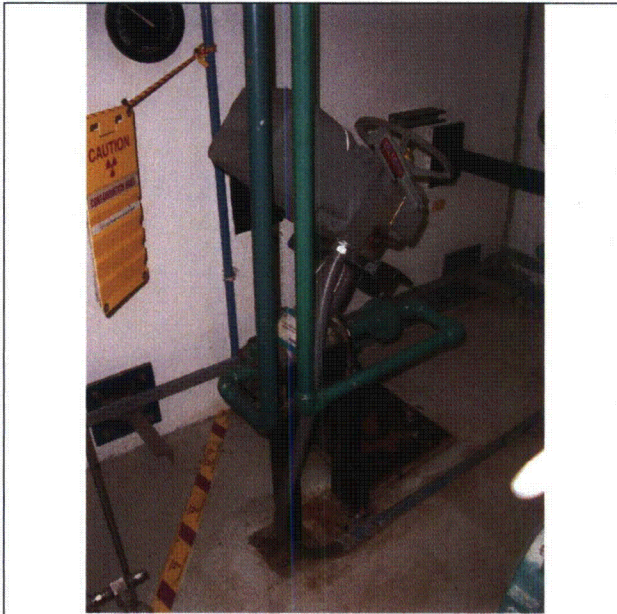
Seismic Walkdown Checklist (SWC) SWEL1-039

Equipment ID No. SWN-51-1A

Equip. Class¹ 8

Equipment Description 21 FCU OUTLET SAMPLE ISO VALVE

Photographs



Note: Bolts and base plate view



Note: Corrosion on the plate

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-040**Equipment ID No. 1870Equip. Class¹ 8Equipment Description RHR PUMP MINI FLOW TEST LINE VALVELocation: Bldg. PPEN & MEZZFloor El. 51'-0" & 67'-6"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Valve is in line with a motor operator. Valve is on elevation 51' and motor operator for valve is anchored to the 67'6" floor.

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation. Mild surface rust, acceptable, no seismic concerns.

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

Inline valve is not anchored into the concrete; anchorage is on elevation 67' for motor operator.

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N USeismic Walkdown Checklist (SWC) SWEL1-040Equipment ID No. 1870Equip. Class¹ 8Equipment Description RHR PUMP MINI FLOW TEST LINE VALVE

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A

(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)

The anchorage configuration matches drawing B-227173-0 Rev 0, & B229713-1 Rev 1.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-040

Equipment ID No. 1870

Equip. Class' 8

Equipment Description RHR PUMP MINI FLOW TEST LINE VALVE

Other Adverse Conditions

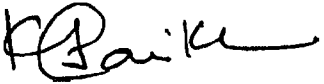
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U


Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References:

*B-227173 Rev 0, Installation of motor operators for valves no. 743 & 1870,
B229713 Rev 1. Mounting details for RHR mini flow line MOVs 743 and 1870 for install of Redundant indication system,
AWC-029*

Evaluated by: Kirit Parikh  Date: 10/24/2012

Nick Crispell  10/24/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-040

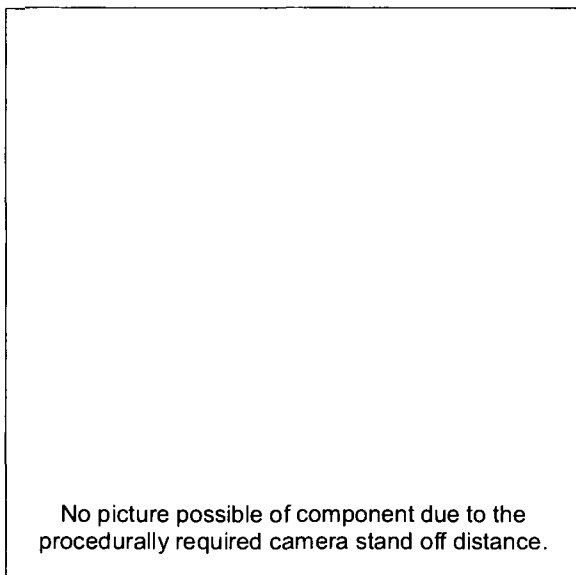
Status: Y N U

Equipment ID No. 1870

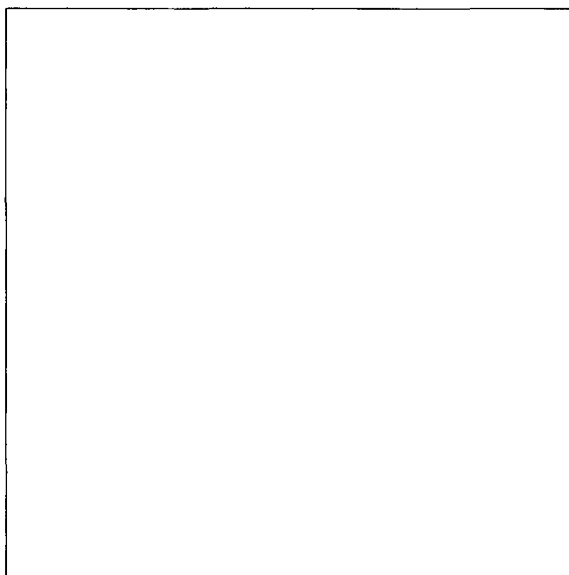
Equip. Class¹ 8

Equipment Description RHR PUMP MINI FLOW TEST LINE VALVE

Photographs



Note:



Note:

ATTACHMENT 9.6
Sheet 1 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. 4928

Equip. Class¹ 8

Equipment Description 24 RCP SEAL INJ LINE ISO VLV

Location: Bldg. PPEN Floor El. 51'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N USeismic Walkdown Checklist (SWC) SWEL1-041Equipment ID No. 4928Equip. Class¹ 8Equipment Description 24 RCP SEAL INJ LINE ISO VLV

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. 4928

Equip. Class¹ 8

Equipment Description 24 RCP SEAL INJ LINE ISO VLV

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Engineering approved long term scaffolding built around the area is judged seismically adequate.

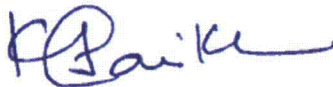
References: Drawings and AWC

Drawings: A208080 Rev 06, Alternate reactor coolant pump seal injection system

A228177 Rev 01, Diag of conn's for post accident M.O.V.'s 850B, 250A, 250B, 869A, 4926, 870, 4928, 958.

AWC-029

Evaluated by: Kirit Parikh



Date: 10/24/2012

Nick Crispell



10/24/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

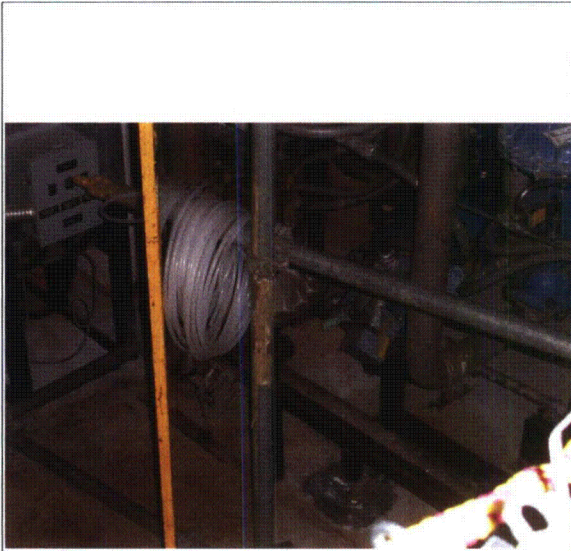
Seismic Walkdown Checklist (SWC) SWEL1-041

Equipment ID No. 4928

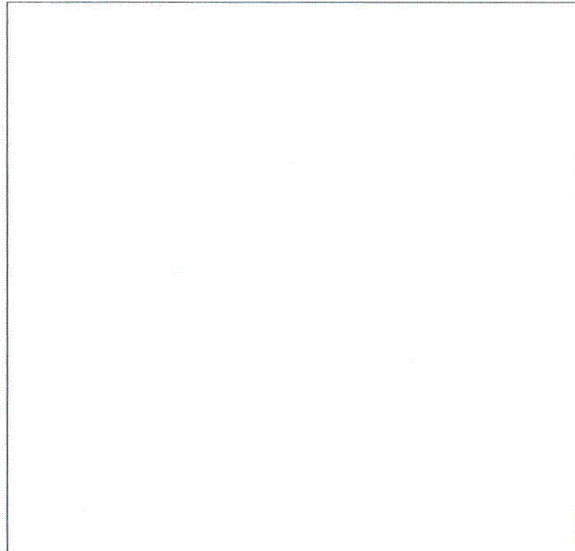
Equip. Class¹ 8

Equipment Description 24 RCP SEAL INJ LINE ISO VLV

Photographs



Note: *Valve 4928*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-042

Equipment ID No. HCV-142(MOV 227) Equip. Class¹ 8

Equipment Description BYPASS CHANNEL FLOW TO RCS VALVE

Location: Bldg. PPEN Floor El. 51'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Valve is in-line, motor operator is supported. Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-042**Equipment ID No. HCV-142(MOV 227)Equip. Class¹ 8Equipment Description BYPASS CHANNEL FLOW TO RCS VALVE

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

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-042

Equipment ID No. HCV-142(MOV 227)

Equip. Class¹ 8

Equipment Description BYPASS CHANNEL FLOW TO RCS VALVE

Other Adverse Conditions

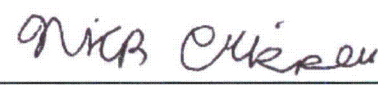
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
9321-F-2736, Rev 129, Flow diagram chemical & volume control system.
AWC-029*

Evaluated by: Kirit Parikh  Date: 10/24/2012

Nick Crispell  10/24/2012

ATTACHMENT 9.6
Sheet 4 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

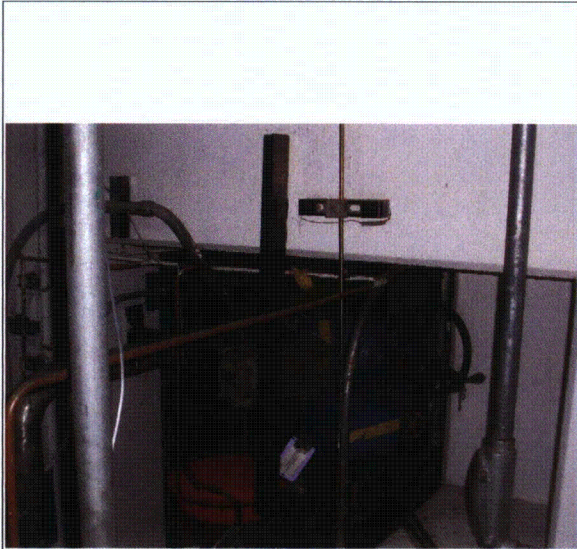
Seismic Walkdown Checklist (SWC) SWEL1-042

Equipment ID No. HCV-142(MOV 227)

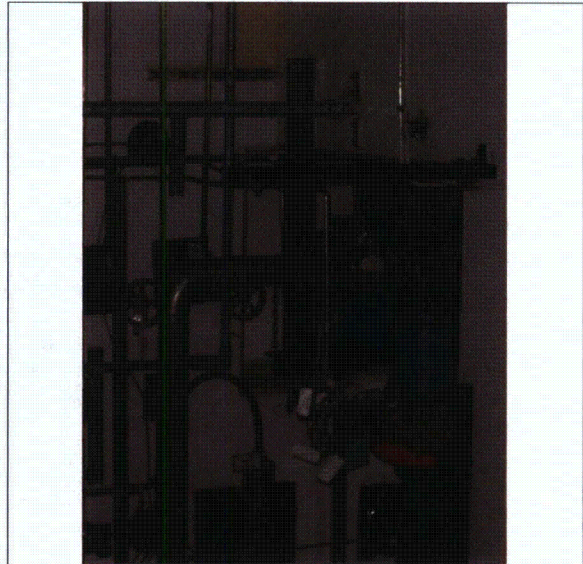
Equip. Class¹ 8

Equipment Description BYPASS CHANNEL FLOW TO RCS VALVE

Photographs



Note: *Valve structure from corner*



Note: *Valve structure and associated commodities*

ATTACHMENT 9.6
Sheet 5 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Seismic Walkdown Checklist (SWC) SWEL1-042

Status: Y N U

Equipment ID No. HCV-142(MOV 227)

Equip. Class¹ 8

Equipment Description BYPASS CHANNEL FLOW TO RCS VALVE



Note: Anchorage of the valve motor supports on concrete wall

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-043

Equipment ID No. SOV-1230

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Location: Bldg. AF

Floor El. 77'-4"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Not applicable since the anchorage is attached to steel plate.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-043**Equipment ID No. SOV-1230Equip. Class¹ 8Equipment Description SG 21 MSIV SOV

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

Yes, the anchorage configuration is consistent with drawing A227166-3.

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-043

Status: Y N U

Equipment ID No. SOV-1230

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Other Adverse Conditions

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

Yes, we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

1. *Dwg A227166, Rev 3, Replacement of main steam isolation valve solenoids. (Con Ed) drawing*
2. *Dwg D227176, Rev 0 (Con Ed) drawing*
3. *AWC-036*

Evaluated by: Stephen Yuan  Date: 10/25/2012

Paul Huebsch  10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-043

Status: Y N U

Equipment ID No. SOV-1230

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Photographs

Control Room would not permit pictures.

Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-044Equipment ID No. SOV-1231Equip. Class¹ 8Equipment Description SG 21 MSIV SOVLocation: Bldg. AFBFloor El. 77'-4"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Not applicable since the anchorage is attached to steel.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-044**Equipment ID No. SOV-1231Equip. Class¹ 8Equipment Description SG 21 MSIV SOV

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.)

Yes, the anchorage configuration is consistent with plant drawings A227166-3

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-044

Equipment ID No. SOV-1231

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

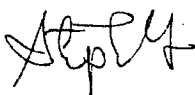
Other Adverse Conditions

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

Yes, we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
Dwg A227166, Rev 3, Replacement of main steam isolation valve solenoids. (Con Ed drawing)
Dwg D227176, Rev 0, Gen sta Unit 2 main stm sys isol. Loops vas MS-1-21, MS1-22, MS1-23 & MS1-24
AWC-036*

Evaluated by: Stephen Yuan  Date: 10/25/2012

Paul Huebsch  Date: 10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-044

Status: Y N U

Equipment ID No. SOV-1231

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Photographs

Control Room would not permit pictures.

Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-045Equipment ID No. SOV-1232Equip. Class¹ 8Equipment Description SG 21 MSIV SOVLocation: Bldg. AFBFloor El. 77'-4"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Not applicable since the anchorage is attached to steel plate.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-045Equipment ID No. SOV-1232Equip. Class¹ 8Equipment Description SG 21 MSIV SOV

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.)

Yes, the anchorage configuration is consistent with plant documentation A227166-3

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-045

Equipment ID No. SOV-1232

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Other Adverse Conditions

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

Yes, we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

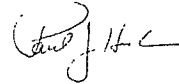
*References: Drawings and AWC
Dwg A227166, Rev 3, Replacement of main steam isolation valve solenoids. (Con Ed drawing)
Dwg D227176, Rev 0, Gen sta Unit 2 main stm sys isol. Loops vas MS-1-21, MS1-22, MS1-23 & MS1-24
AWC-036*

Evaluated by: Stephen Yuan



Date: 10/25/2012

Paul Huebsch



10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-045

Status: Y N U

Equipment ID No. SOV-1232

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Photographs

Control Room would not permit pictures
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Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-046Equipment ID No. SOV-1233Equip. Class¹ 8Equipment Description SG 21 MSIV SOVLocation: Bldg. AFBFloor El. 77'-4"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes, the anchorage is free of bent, broken, missing or loose hardware.

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

Yes, the anchorage is free of corrosion that is more than mild surface oxidation.

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

Not applicable since the anchorage is attached to steel.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-046**Equipment ID No. SOV-1233Equip. Class¹ 8Equipment Description SG 21 MSIV SOV

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.)

Yes, the anchorage configuration is consistent with plant drawing A227166-3.

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

Yes, based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes, soft targets are free from impact by nearby equipment or structures.

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

Yes, overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes, attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-046

Equipment ID No. SOV-1233

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Other Adverse Conditions

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

Yes, we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
Dwg A227166, Rev 3, Replacement of main steam isolation valve solenoids.
Dwg D227176, Rev 0, Gen sta Unit 2 main stm sys isol. Loops vas MS-1-21, MS1-22, MS1-23 & MS1-24
AWC-036*

Evaluated by: Stephen Yuan  Date: 10/25/2012

Paul Huebsch  Date: 10/25/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-046

Status: Y N U

Equipment ID No. SOV-1233

Equip. Class¹ 8

Equipment Description SG 21 MSIV SOV

Photographs

Control Room would not permit pictures

Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-047Equipment ID No. F-318Equip. Class¹ 9Equipment Description EDG BLDG FANLocation: Bldg. EDGFloor El. 72'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Fireproofing material obstructs view of some anchors. Checked visible anchors.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Anchorage to structural steel.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-047**Equipment ID No. F-318Equip. Class¹ 9Equipment Description EDG BLDG FAN

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-047

Equipment ID No. F-318

Equip. Class¹ 9

Equipment Description EDG BLDG FAN

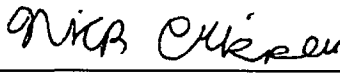
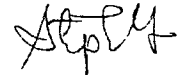
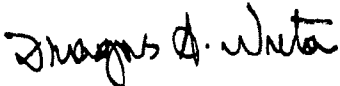
Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
A246342, Rev. 2, E.D.G. BLDG Ventilation
AWC-011*

Evaluated by: <u>Nick Crispell</u>		Date: <u>10-15-2012</u>
<u>Stephen Yuan</u>		<u>10-15-2012</u>
<u>Dan Nuta</u>		<u>10-15-2012</u>

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-047

Status: Y N U

Equipment ID No. F-318

Equip. Class¹ 9

Equipment Description EDG BLDG FAN

Photographs

No picture possible due to procedurally required camera standoff distance.

Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-048**Equipment ID No. 22CPEFEquip. Class¹ 9Equipment Description CB PURGE & PAB EXHUAUST FANLocation: Bldg. FAN HOUSEFloor El. 72'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-048Equipment ID No. 22CPEFEquip. Class¹ 9Equipment Description CB PURGE & PAB EXHUAUST FAN

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 5

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Seismic Walkdown Checklist (SWC) SWEL1-048

Status: Y N U

Equipment ID No. 22CPEF

Equip. Class¹ 9

Equipment Description CB PURGE & PAB EXHUAUST FAN

Other Adverse Conditions

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

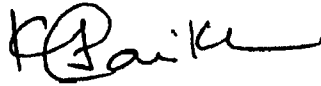
Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

A metal pulley is on the floor due to maintenance in progress. Not a seismic concern.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
9321-F-4034, Rev 19, Fan House, PAB, FSB & CB Exh., Purge & Dilution Fans Sections
9321-F-4033, Rev 23, Fan House, PAB, FSB + CB Exh., Purge & Dilution Fans Plans
AWC-031*

Evaluated by: Kirit Parikh



Date: 10/24/2012

Nick crispell



10/24/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

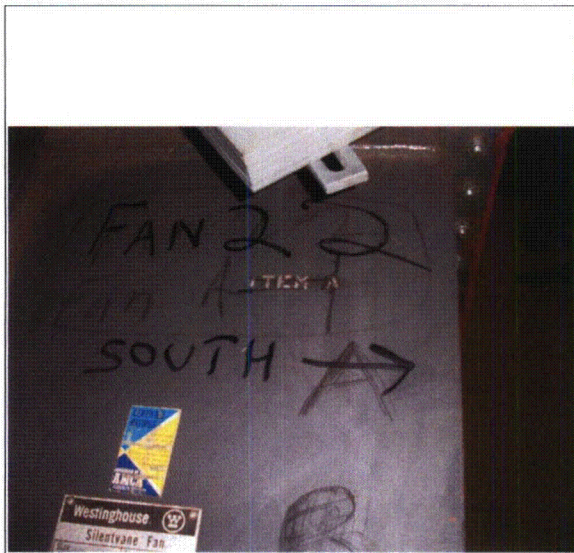
Seismic Walkdown Checklist (SWC) SWEL1-048

Equipment ID No. 22CPEF

Equip. Class¹ 9

Equipment Description CB PURGE & PAB EXHUAST FAN

Photographs



Note: Fan identification writing



Note: Fan front view

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-048

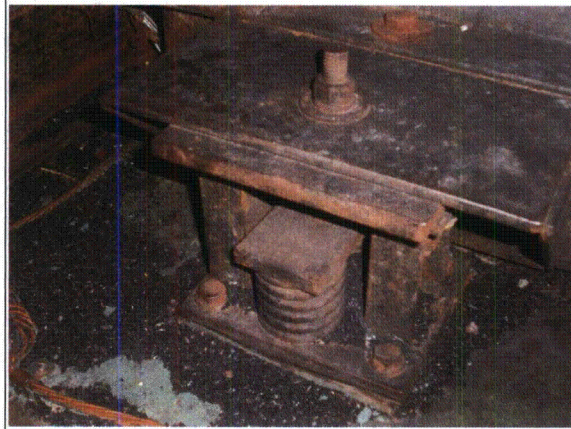
Equipment ID No. 22CPEF

Equip. Class¹ 9

Equipment Description CB PURGE & PAB EXHUAST FAN



Note: Fan overhead areas



Note: Fan anchorage view

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-049**Equipment ID No. 21CPEFEquip. Class¹ 9Equipment Description CB PURGE & PAB EXHUAUST FANLocation: Bldg. FAN HOUSEFloor El. 72'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-049**Equipment ID No. 21CPEFEquip. Class¹ 9Equipment Description CB PURGE & PAB EXHUAUST FAN

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-049

Equipment ID No. 21CPEF

Equip. Class¹ 9

Equipment Description CB PURGE & PAB EXHUAUST FAN

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

A loose metal pulley is found on the floor due to maintenance in progress. Not a seismic concern.

Comments (Additional pages may be added as necessary)

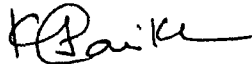
References:

9321-F-4034, Rev 19, Fan House, PAB, FSB & CB Exh., Purge & Dilution Fans Sections

9321-F-4033, Rev 23, Fan House, PAB, FSB + CB Exh., Purge & Dilution Fans Plans

AWC-031

Evaluated by: Kirit Parikh



Date: 10/24/2012

Nick Crispell



10.24/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-049

Equipment ID No. 21CPEF

Equip. Class¹ 9

Equipment Description CB PURGE & PAB EXHUAST FAN

Photographs



Note: *Front view of the fan*



Note: *Fan anchorage*

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-049

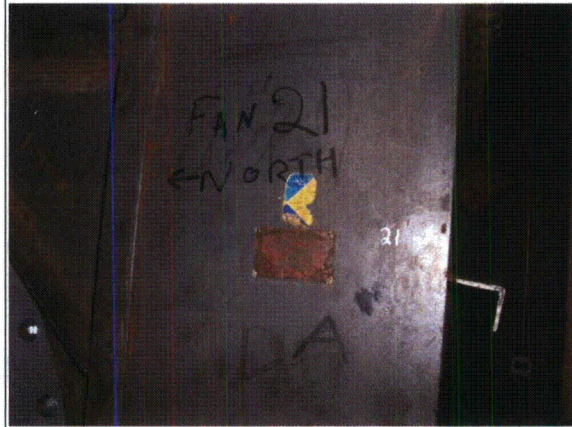
Equipment ID No. 21CPEF

Equip. Class¹ 9

Equipment Description CB PURGE & PAB EXHUAST FAN



Note: Area, Above the fan 21



Note: Fan 21, facing front part of the fan

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. 21ETEF

Equip. Class¹ 9

Equipment Description EXHAUST FAN

Location: Bldg. ELE TUNNEL

Floor El. 73'-7"

Room, Area Behind EDG Bldg.

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Minor surface rust, acceptable

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-050**Equipment ID No. 21ETEFEquip. Class¹ 9Equipment Description EXHAUST FAN

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A

(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)

The anchorage configuration verification is required and is consistent with the plant drawing 9321-F-3052-38 Rev 38.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Transmission lines over head well protected. No seismic concern.

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. 21ETEF

Equip. Class¹ 9

Equipment Description EXHAUST FAN

Other Adverse Conditions


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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
9321-F-3052, Rev 38, Equipment Arrangement Control Bldg. UFSAR Figure No. 1.2-7 (SHT. 2)
AWC-033*

Evaluated by: Kirit Parikh



Date: 10/25/2012

Nick Crispell



10/25/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. 21ETEF

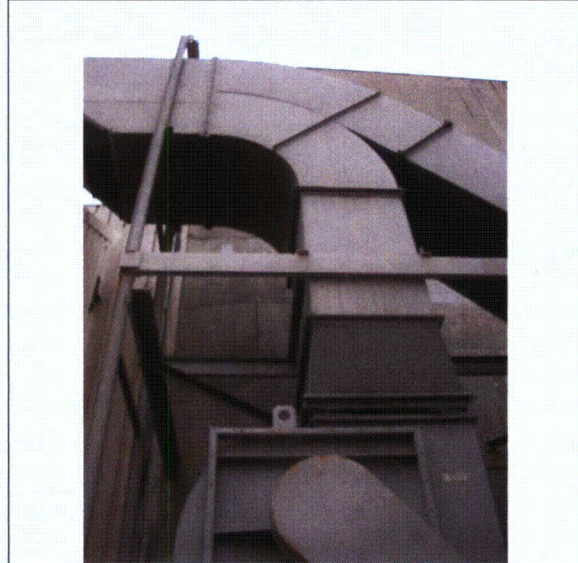
Equip. Class¹ 9

Equipment Description EXHAUST FAN

Photographs



Note: Front view of the Exhaust fan 21ETEF



Note: The Fan and exhaust ducts

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-050

Equipment ID No. 21ETEF

Equip. Class¹ 9

Equipment Description EXHAUST FAN



Note: *View of the base plate and anchors*



Note: *Side view of the exhaust fan*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-051Equipment ID No. F-216Equip. Class¹ 9Equipment Description WALL FAN #216Location: Bldg. CBFloor El. 15'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Fan is elevated significantly above the floor. Can not see all anchors do to the high elevation of fan. Yes for all anchors observable from floor.

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

Surface corrosion. Judged acceptable.

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

No concrete anchorage. All anchorage to structural steel.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-051**Equipment ID No. F-216Equip. Class¹ 9Equipment Description WALL FAN #216

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-051

Status: Y N U

Equipment ID No. F-216

Equip. Class¹ 9

Equipment Description WALL FAN #216

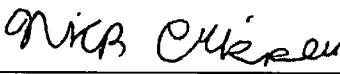
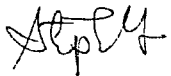
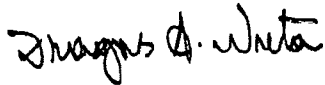
Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
9321-F-4017, Rev 28, (A-201041), Control building heating vent. And air conditioning plans and sections.
9321-F-3052, Rev 38, Equipment arrangement control building.
AWC-001*

Evaluated by: <u>Nick Crispell</u>		Date: <u>10-9-2012</u>
<u>Stephen Yuan</u>		<u>10-9-2012</u>
<u>Dan Nuta</u>		<u>10-9-2012</u>

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

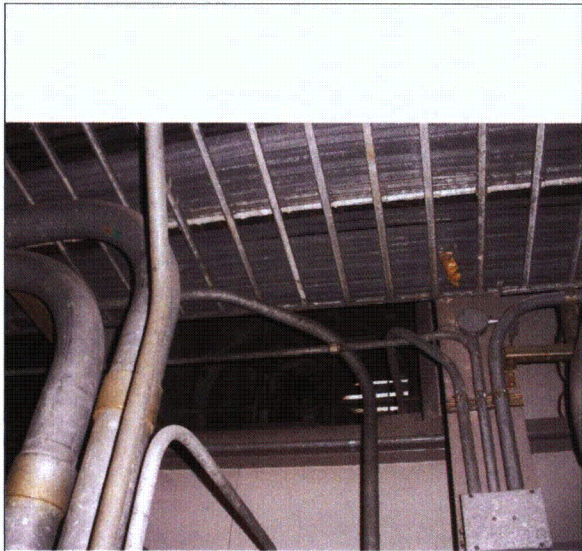
Seismic Walkdown Checklist (SWC) SWEL1-051

Equipment ID No. F-216

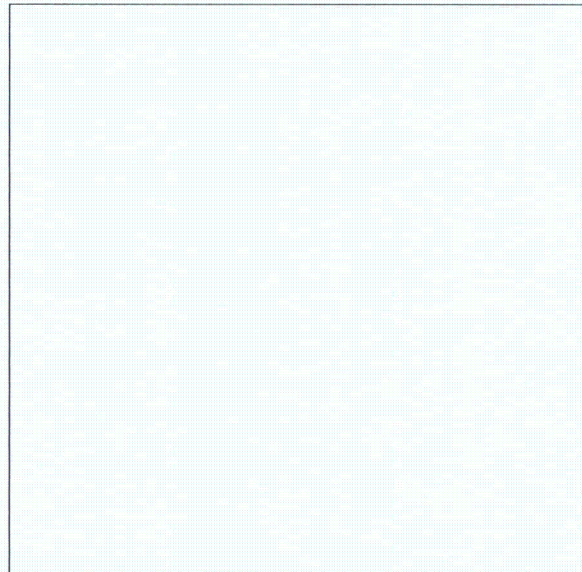
Equip. Class¹ 9

Equipment Description WALL FAN #216

Photographs



Note: Fan is at high elevation. Only part of the anchorage/connection can be observed from ground.



Note:

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 1 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-057**Equipment ID No. CCRAC2Equip. Class¹ 11Equipment Description CONDENSING UNIT (24 TONS)Location: Bldg. TSCFloor El. 88'-6"Room, Area Bldg Roof

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Anchorage is present but not visible. Anchorage is covered with flashing and then flashing is cover with water proofing as this is a roof mounted AC unit. Equipment has a large foot print and low CG therefore overturning is judged not to be a concern.

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

Same answer as question 2 above.

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

Same answer as question 2 above

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-057**Equipment ID No. CCRAC2Equip. Class¹ 11Equipment Description CONDENSING UNIT (24 TONS)

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-057

Equipment ID No. CCRAC2

Equip. Class¹ 11

Equipment Description CONDENSING UNIT (24 TONS)

Other Adverse Conditions


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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
A226593, Rev 0, Tech Support Center Part Plan Elev. 88'-6" HVAC Arrangement & Sections
138208, Rev 15, Indian Point Unit No. 1 Plan at Elevation 88'-6"
AWC-036*

Evaluated by: Kirit Parikh  Date: 10/25/2012

Nick Crispell  10/25/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-057

Equipment ID No. CCRAC2

Equip. Class¹ 11

Equipment Description CONDENSING UNIT (24 TONS)

Photographs



Note: The condensing unit, CCRAC2, with anchorage area covered with water proof materials



Note: Side view of the condensing unit

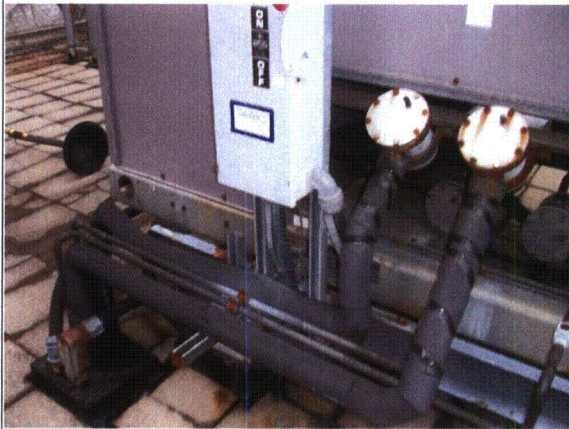
Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-057

Equipment ID No. CCRAC2

Equip. Class¹ 11

Equipment Description CONDENSING UNIT (24 TONS)



Note: *Soft connections on the condensing unit*



Note: *The base of the condensing unit covered with water proof materials.*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-058**Equipment ID No. 21IACEquip. Class¹ 12Equipment Description INSTRUMENT AIR COMPRESSOR 21Location: Bldg. CBFloor El. 15'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Anchor bolts have double nuts. One extra nut on top is loose and not touching second nut. Bottom nut is tight. Judged acceptable.

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Coated concrete. No significant concrete cracking found.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-058**Equipment ID No. 21IACEquip. Class¹ 12Equipment Description INSTRUMENT AIR COMPRESSOR 21

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 matches SQUG (SEWS).

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

The masonry brick wall was seismic qualified by Computech Report no. R547.01.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Seismic Walkdown Checklist (SWC) SWEL1-058

Status: Y N U

Equipment ID No. 21IAC

Equip. Class¹ 12

Equipment Description INSTRUMENT AIR COMPRESSOR 21

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

- None.
- *UNISTRUT support on the east side of the EP-2 concrete pedestal has one member missing a bolt attached to the pedestal above the base. The support for the EP-2 power conduit is considered acceptable. However, the missing bolt should be reinstalled. CR IP2-2012-06495 issued for tracking.*
 - *EP-2 tensioning bolt double nut has minor surface rust. OK.*

References: Drawings and AWC

Drawings: 9321-F-3052, Rev 38, Equipment arrangement control building, UFSAR figure no. 12-7

9321-F-18543, Rev 10, Control and diesel generator building concrete plan elev.15'

AWC-001

Evaluated by:	<u>Nick Crispell</u> <i>Nick Crispell</i>	Date: <u>10/09/2012</u>
	<u>Stephen Yuan</u> <i>Step Y</i>	<u>10/09/2012</u>
	<u>D Nuta</u> <i>Dragos D. Nuta</i>	<u>10/09/2012</u>

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

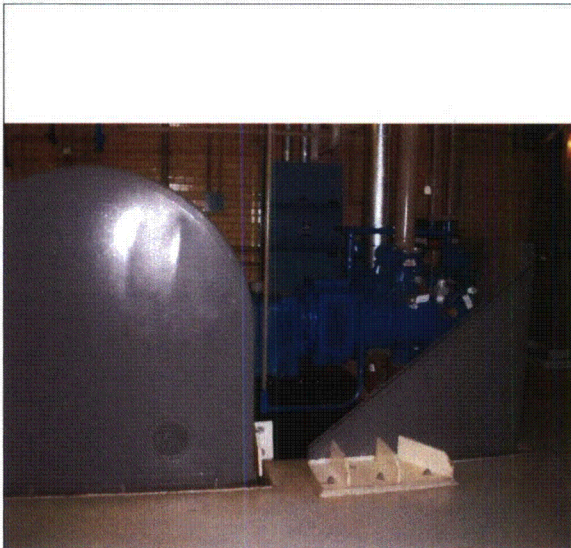
Seismic Walkdown Checklist (SWC) SWEL1-058

Equipment ID No. 21IAC

Equip. Class¹ 12

Equipment Description INSTRUMENT AIR COMPRESSOR 21

Photographs



Note: *Instrument Air Compressor 21*



Note: *EP-2 pedestal east UNISTRUT support.*

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-059

Equipment ID No. 0022IAC

Equip. Class¹ 12

Equipment Description INSTRUMENT AIR COMP 22

Location: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

One corner bolt has two nuts. Bottom one is tight. Acceptable.

Minor surface rust on bolt. Grounding wire shows surface corrosion judged acceptable.

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

Concrete coated. No visible cracks in anchor area of significance.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-059**Equipment ID No. 0022IACEquip. Class¹ 12Equipment Description INSTRUMENT AIR COMP 22

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 matches SQUG (SEWS).

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

The masonry brick wall was seismic qualified by Computech Report no. R547.01.

Brick wall has crack near column K8,10.1, appears to be caused by local impact. Not major structural crack.

Overhead fluorescent bulb doesn't have wire securing bulb to fixture. CR IP2-2012-06120 addresses the issue.

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

Yes attached lines have adequate flexibility to avoid damage.

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-059

Equipment ID No. 0022IAC

Equip. Class¹ 12

Equipment Description INSTRUMENT AIR COMP 22

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

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

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
Drawings: 9321-F-3052, Rev 38, Equipment arrangement control building.*

AWC-001

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-9-2012

Stephen Yuan *Step Y* 10-9-2012

Dan Nuta *Dan Nuta* 10-9-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-059

Equipment ID No. 0022IAC

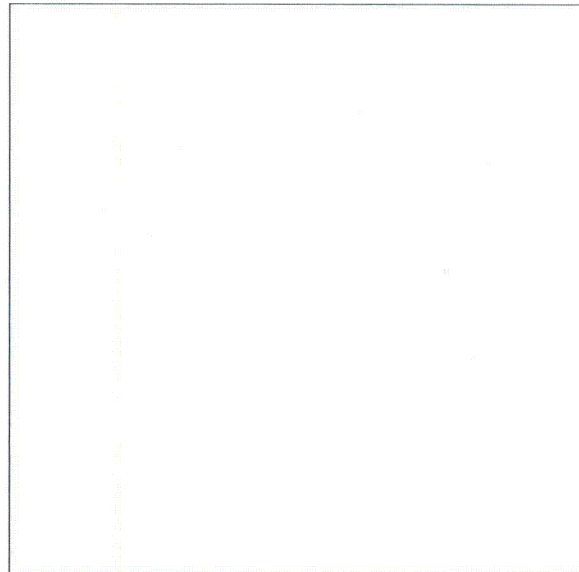
Equip. Class¹ 12

Equipment Description INSTRUMENT AIR COMP 22

Photographs



Note: *Instrument Air Compressor 22*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-060

Equipment ID No. 22EDAC

Equip. Class¹ 12

Equipment Description STARTING AIR COMPRESSOR #22

Location: Bldg. EDG Floor El. 62'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

Yes the anchorage configuration verification is required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Hair line cracks present. They are judged acceptable.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-060**Equipment ID No. 22EDACEquip. Class¹ 12Equipment Description STARTING AIR COMPRESSOR #22

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.)

Matches SQUG (SEWS). 4 Clip angles welded to top plate which is anchor bolted into the concrete pedestal.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-060

Equipment ID No. 22EDAC

Equip. Class¹ 12

Equipment Description STARTING AIR COMPRESSOR #22


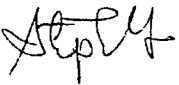
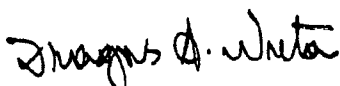
Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC
Drawings: 9321-H-2250, Rev 7, Diesel generator building general arrangement plan.
9321-F-1461, Rev 10, Diesel generator building concrete foundation plan.
AWC-011

Evaluated by: <u>Nick Crispell</u>		Date: <u>10-16-2012</u>
<u>Stephen Yuan</u>		<u>10-16-2012</u>
<u>Dan Nuta</u>		<u>10-16-2012</u>

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

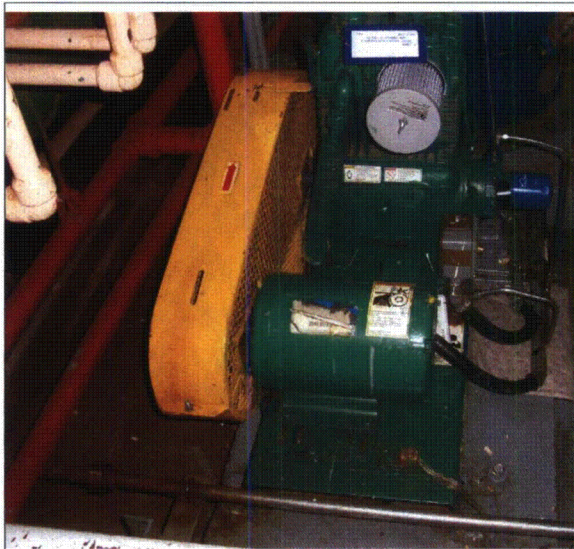
Seismic Walkdown Checklist (SWC) SWEL1-060

Equipment ID No. 22EDAC

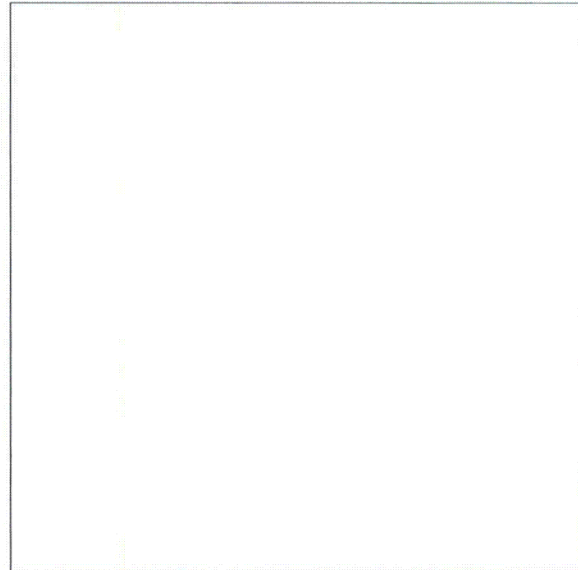
Equip. Class¹ 12

Equipment Description STARTING AIR COMPRESSOR #22

Photographs



Note: EDG Starting Air Compressor #22



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-061Equipment ID No. 21MGSEquip. Class¹ 13Equipment Description 21 MACHINE GENERATOR SETLocation: Bldg. CBFloor El. 33'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Surface corrosion on bolts and washers. Acceptable.

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

Concrete pedestal is chipped on south-west corner. Judged not seismically significant.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-061**Equipment ID No. 21MGSEquip. Class¹ 13Equipment Description 21 MACHINE GENERATOR SET

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.)

Not applicable since component is not part of the anchorage configuration verification.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

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

Brick wall south and block wall south-west for battery room 22 are seismicly qualified by Computech report No. R547.01. .

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-061

Equipment ID No. 21MGS

Equip. Class¹ 13

Equipment Description 21 MACHINE GENERATOR SET

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

Some fluorescent bulbs need wire restraints in room. Floresent light south of equipment needs new balast per taped on sign. This is not a seismic issue for this component as component is a hard target but is a seismic good housekeeping practice. CR IP2-2012-06120 tracks resolution of these issues.

East side vent panel missing 2 of 10 cover bolts. Judged acceptable seismicly by walkdown team. CR IP2-2012-6134 tracks resolution of this issue.

References: Drawings and AWC

Drawings: 9321-F-3052, Rev 38. Equipment arrangement control building.

AWC-003

Evaluated by: Nick Crispell *Nick Crispell* Date: 10-10-2012

Stephen Yuan *Step Y* 10-10-2012

Dan Nuta *Dan Nuta* 10-10-2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-061

Equipment ID No. 21MGS

Equip. Class¹ 13

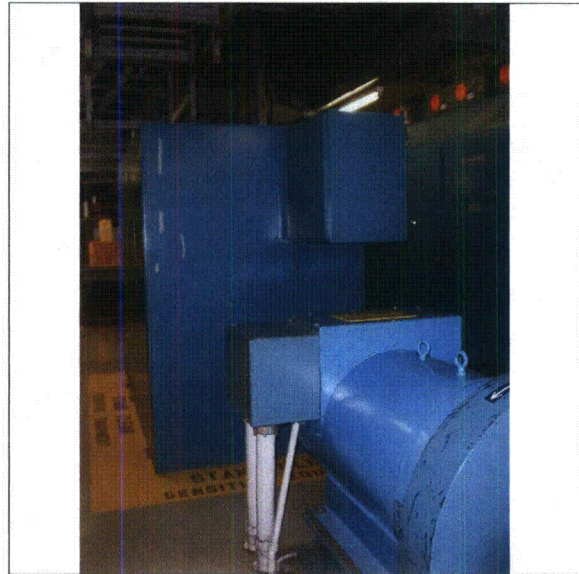
Equipment Description 21 MACHINE GENERATOR SET

Photographs



Note:

21MACHINE GENERATOR SET



Note:

21MACHINE GENERATOR SET

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-062**Equipment ID No. 22MGSEquip. Class¹ 13Equipment Description 22 MACHINE GENERATOR SETLocation: Bldg. CBFloor El. 33'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

No, the anchorage configuration verification is not required.

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

Yes the anchorage is free of bent, broken, missing or loose hardware.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-062**Equipment ID No. 22MGSEquip. Class¹ 13Equipment Description 22 MACHINE GENERATOR SET

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.)

Not applicable since the anchorage configuration verification is not required.

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

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Cable tray support frame (over top of 22 MG SET) appears too close to the conduit west of the frame. The frame might interact with the conduit. Additionally the cable tray support frame does not appear to be seismically designed. License basis evaluation LB-01 determined that the cable tray support as well as the gap between the conduit and cable tray support was seismically adequate. CR IP2-2012-06498 was issued to hold the LBE. Refer to AWC-003 for area walk by. The concern is accepted.

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

Yes attached lines have adequate flexibility to avoid damage.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-062

Equipment ID No. 22MGS

Equip. Class¹ 13

Equipment Description 22 MACHINE GENERATOR SET

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

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

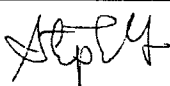
Other Adverse Conditions


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

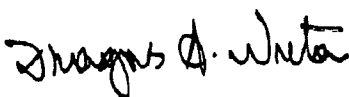
Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
Drawings: 9321-F-30523, Rev 50. Equipment arrangement control building.
AWC-003*

Evaluated by: Stephen Yuan  Date: 10/10/2012

Nick Crispell  10/10/2012

Dan Nuta  10/10/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-062

Equipment ID No. 22MGS

Equip. Class¹ 13

Equipment Description 22 MACHINE GENERATOR SET

Photographs



Note:

22 MACHINE GENERATOR SET



Note:

OVERHEAD CABLE TRAY SUPPORT

ATTACHMENT 9.6
Sheet 1 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-065

Equipment ID No. EDD1

Equip. Class¹ 14

Equipment Description TRANSFER SWITCH

Location: Bldg. CB Floor El. 15'-0" Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Lock nuts connecting bottom unistrut to unistrut are not fully engaged with lock nut nylon. Acceptable as unistruts are welded together as called for on drawings.

Cabinet door was opened and internal components and anchorage of internal components were examined and judged acceptable.

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

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

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

Anchorage is to structural steel not to concrete.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-065**Equipment ID No. EDD1Equip. Class¹ 14Equipment Description TRANSFER SWITCH

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 matches drawing 206651-9

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.***Interaction Effects**

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Yes overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are not likely to collapse onto the equipment.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-065

Equipment ID No. EDD1

Equip. Class¹ 14

Equipment Description TRANSFER SWITCH

Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings: A206651, Rev 9, Conduit layout control building elevation 15' and 33'

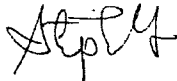
AWC-002

Evaluated by: Nick Crispell



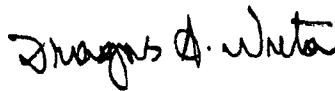
Date: 10-9-2012

Stephen Yuan



10-9-2012

Dan Nuta



10-9-2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-065

Equipment ID No. EDD1

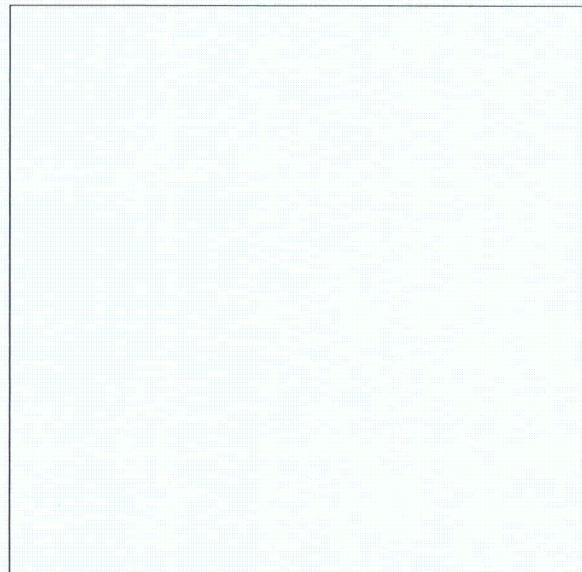
Equip. Class¹ 14

Equipment Description TRANSFER SWITCH

Photographs



Note: *Transfer switch*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-066**Equipment ID No. EDD2Equip. Class¹ 14Equipment Description TRANSFER SWITCHLocation: Bldg. CBFloor El. 15'-0"

Room, Area _____

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

Instructions for Completing Checklist

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

Anchorage

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

The anchorage configuration verification is required.

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

Cabinet door opened. Internals where examined and judged to be adequately anchored.

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

Minor surface corrosion acceptable.

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

Yes the anchorage is free of visible cracks in the concrete near the anchors.

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

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-066**Equipment ID No. EDD2Equip. Class¹ 14Equipment Description TRANSFER SWITCH

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 matches drawing 206646.

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

*Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.***Interaction Effects**

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

Yes soft targets are free from impact by nearby equipment or structures.

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

Masonry wall is seismically qualified by computech report R547.01 per SQUG SEWS.

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

Yes attached lines have adequate flexibility to avoid damage.

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

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

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Seismic Walkdown Checklist (SWC) SWEL1-066

Status: Y N U

Equipment ID No. EDD2

Equip. Class¹ 14

Equipment Description TRANSFER SWITCH


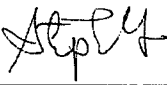
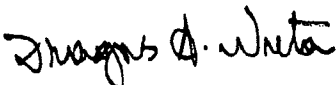
Other Adverse Conditions

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

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
 Drawings: A206646, Rev 20, Conduit layout control building, elevation 15'-0"
 AWC-002*

Evaluated by: <u>Nick Crispell</u>		Date: <u>10-9-2012</u>
<u>Stephen Yuan</u>		<u>10-9-2012</u>
<u>Dan Nuta</u>		<u>10-9-2012</u>

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-066

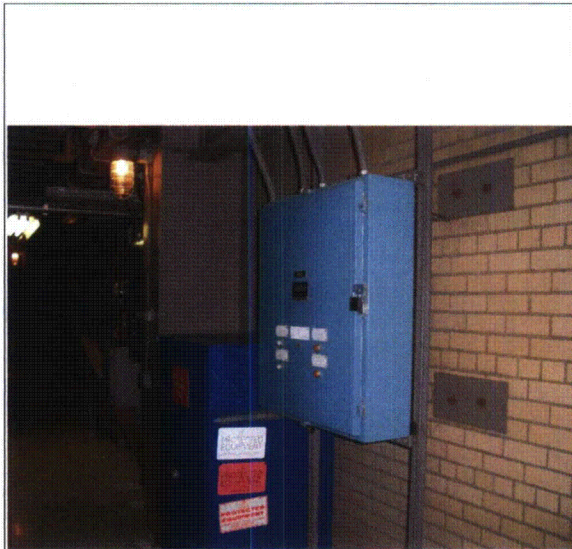
Status: Y N U

Equipment ID No. EDD2

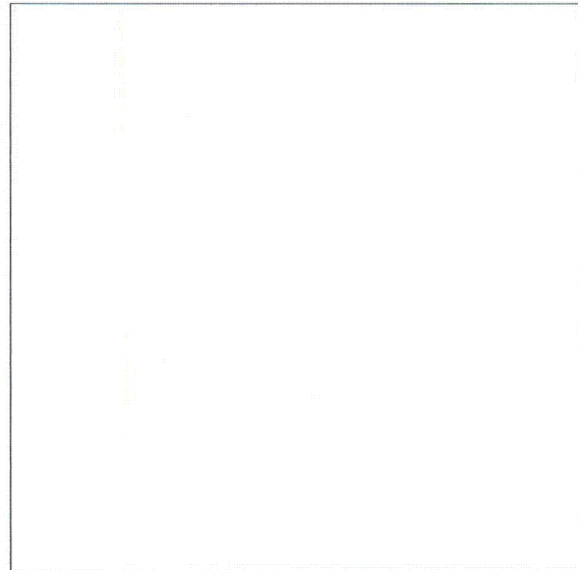
Equip. Class¹ 14

Equipment Description TRANSFER SWITCH

Photographs



Note: *Transfer Switch*



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-067Equipment ID No. EDC1Equip. Class¹ 14Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCHLocation: Bldg. CBFloor El. 33'-0"

Room, Area _____

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

No, the anchorage configuration verification is not required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Cabinet shall be opened to inspect attachment of internal components to the cabinet. Cabinet can not be opened when powered.

Anchorage external to cabinet checked and found to be free of bent, broken, missing or loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

External anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

External anchorage is free of significant visible cracks in the masonry wall near the anchors.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. EDC1

Equip. Class¹ 14

Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

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.)

Not applicable since component is not part of the anchorage configuration verification.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Cabinet need to be opened to inspect attachment of internal components to the cabinet. Cabinet can not be opened when powered.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Yes soft targets are free from impact by nearby equipment or structures..

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

Block wall is seismicly qualified by Computech report No. R547.01.

Fluorescent bulbs need to be secured to fixtures with wires. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture. It is judged the hard target inverter will remain operable if the florescent bulbs were to fall on it.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. EDC1

Equip. Class¹ 14

Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

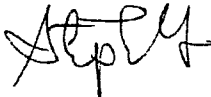
Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

References: Drawings and AWC

*Drawings: A206648, Rev 46, Conduit layout Control building, elev. 33' plan west half
AWC-004*

Evaluated by: Stephen Yuan



Date: 10/11/12

Nick Crispell



10/11/12

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-067

Equipment ID No. EDC1

Equip. Class¹ 14

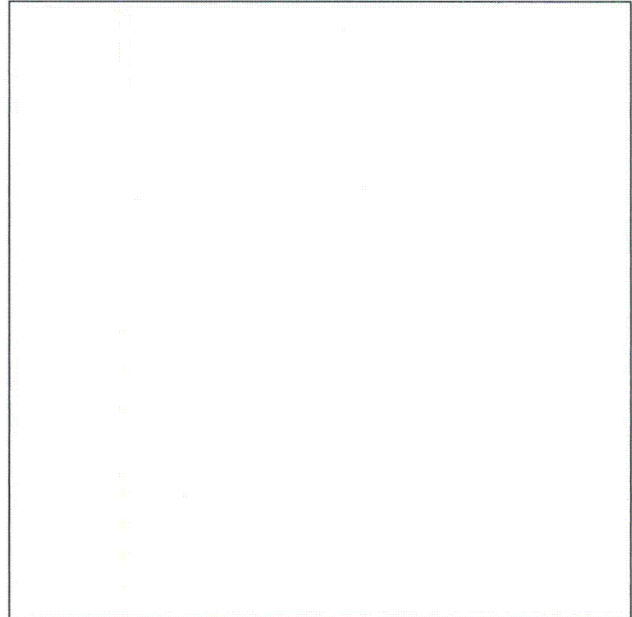
Equipment Description STATIC INV. #23 MANUAL BY-PASS SWITCH

Photographs



Note:

STATIC INV #23 MANUAL BY-PASS SWITCH



Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-068Equipment ID No. BATT21Equip. Class¹ 15Equipment Description BATTERY BANKLocation: Bldg. CBFloor El. 33'-0"Room, Area 21 Battery Room

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

The anchorage configuration verification is not required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Yes the anchorage is free of bent, broken, missing or loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Yes the anchorage is free of visible cracks in the concrete near the anchors.

¹ Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-068**Equipment ID No. BATT21Equip. Class¹ 15Equipment Description BATTERY BANK

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.)

Not applicable since component is not part of the anchorage configuration verification.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Block wall is seismically qualified by Computech report No. R547.01.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

CR IP2-2012-06120 tracks installation of wires to tie fluorescent bulb to fixture for good seismic housekeeping. This is judged as a non seismic issue as bulbs falling would not render the hard target batteries inoperable.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-068

Status: Y N U

Equipment ID No. BATT21

Equip. Class¹ 15

Equipment Description BATTERY BANK

Other Adverse Conditions

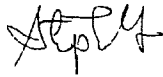
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
Drawings: 9321-F-3052, Rev 38. Equipment arrangement control room.
AWC-006*

Evaluated by: Stephen Yuan



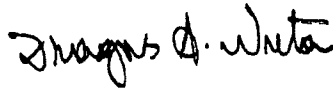
Date: 10/10/12

Nick Crispell



10/10/12

Dan Nuta



10/10/12

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-068

Status: Y N U

Equipment ID No. BATT21

Equip. Class¹ 15

Equipment Description BATTERY BANK

Photographs

No photo due to restriction of EN-DC-217.

Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-069**Equipment ID No. BATT22Equip. Class¹ 15Equipment Description BATTERY BANKLocation: Bldg. CBFloor El. 33'-0"Room, Area 22 Battery Room

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

No, the anchorage configuration verification is not required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Yes the anchorage is free of bent, broken, missing or loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

¹ Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-069**Equipment ID No. BATT22Equip. Class¹ 15Equipment Description BATTERY BANK

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.)

Not applicable since component is not part of the anchorage configuration verification.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Yes soft targets are free from impact by nearby equipment or structures.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

Fluorescent bulbs need to be secured with wires. CR IP2-2012-06120 tracks installation of wires to tie fluorescent bulb to fixture. It is judged the batteries (hard target) would remain operable if the fluorescent bulbs fall.

Block wall is seismically qualified by Computech report No. R547.01.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

EN-DC-168 REV 0

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-069

Equipment ID No. BATT22

Equip. Class¹ 15

Equipment Description BATTERY BANK

Other Adverse Conditions

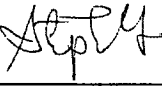
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

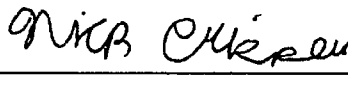
Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

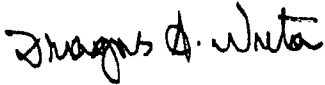
Comments (Additional pages may be added as necessary)

Loose steel member (12" long) found under the battery rack. CR IP2-2012-06510 tracks resolution This is a non-seismic issue.

*References: Drawings and AWC
Drawings: 9321-F-3052, Rev 38, Equipment arrangement control building.
AWC-005*

Evaluated by: Stephen Yuan  Date: 10/10/2012

Nick Crispell  10/10/2012

D Nuta  10/10/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-069

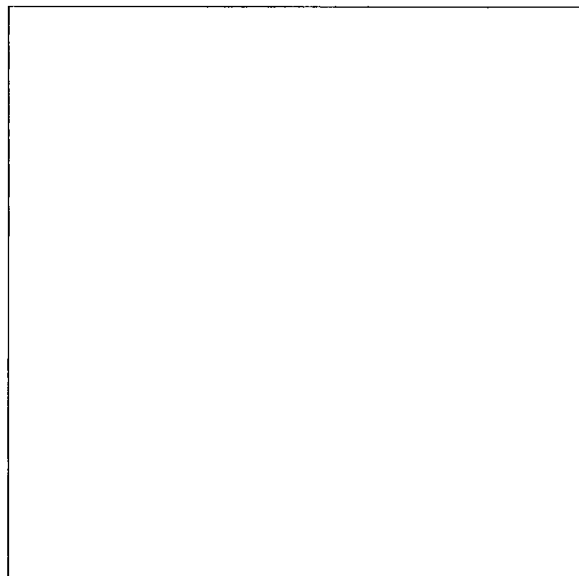
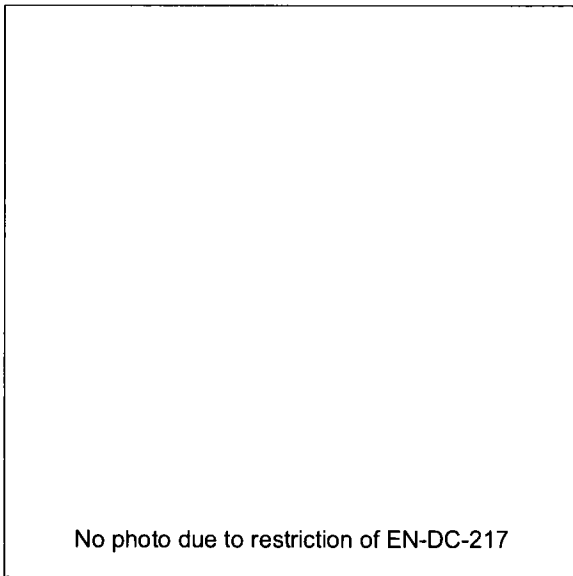
Status: Y N U

Equipment ID No. BATT22

Equip. Class¹ 15

Equipment Description BATTERY BANK

Photographs



Note:

Note:

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 1 of 5

IP2

Status: Y N U Seismic Walkdown Checklist (SWC) SWEL1-070Equipment ID No. BATT23Equip. Class¹ 15Equipment Description BATTERY BANKLocation: Bldg. CBFloor El. 33'-0"Room, Area BATTERY ROOM 23

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

Yes the anchorage configuration verification is required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Yes the anchorage is free of bent, broken, missing or loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Floor coated. No visible concrete cracks observed.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 2 of 5

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-070**Equipment ID No. BATT23Equip. Class¹ 15Equipment Description BATTERY BANK

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 matches drawing M-10398, M-10397, TMC53813, and SQUG (SEWS).

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Yes soft targets are free from impact by nearby equipment or structures.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

Block walls of concern are qualified by SQUG (SEWS).

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-070

Equipment ID No. BATT23

Equip. Class¹ 15

Equipment Description BATTERY BANK

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

One overhead light is burnt out. This is a non-seismic issue. CR IP2-2012-06510 issued to resolve.

References: Drawings and AWC

Drawings: 9321-F-3052, Rev 38, Equipment arrangement control building.

AWC-015

Evaluated by: Nick Crispell

Nick Crispell

Date: 10-17-2012

Dan Nuta

Dan Nuta

10-17-2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-070

Equipment ID No. BATT23

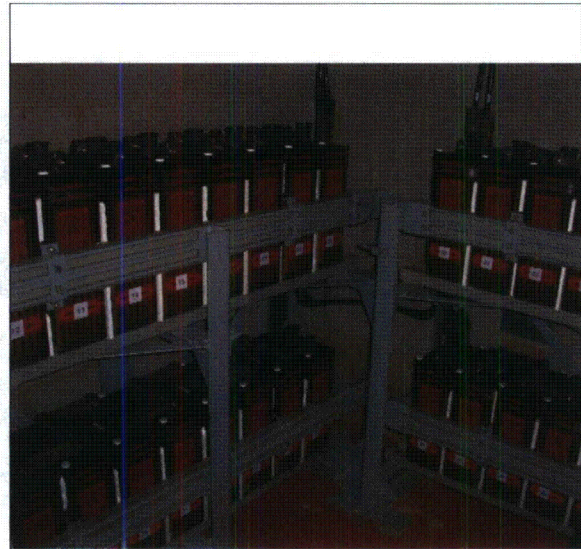
Equip. Class¹ 15

Equipment Description BATTERY BANK

Photographs



Note: *Battery rack 23 looking south-east.*



Note: *Battery rack 23 looking south-west.*

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-070

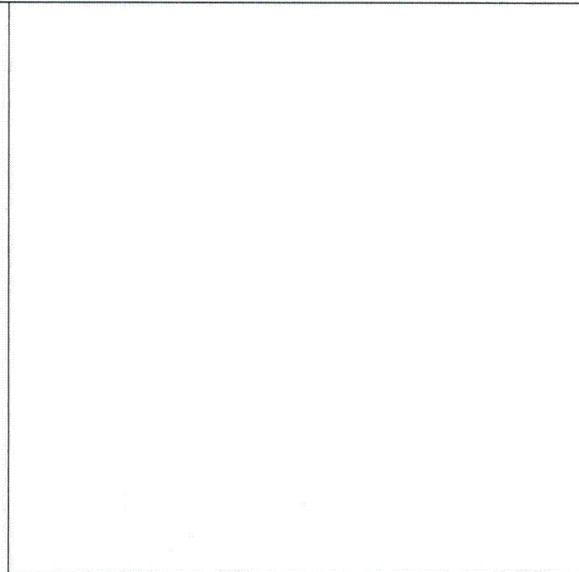
Equipment ID No. BATT23

Equip. Class¹ 15

Equipment Description BATTERY BANK



Note: *Typical baseplate and anchor bolts.*



Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-071

Equipment ID No. BATT24

Equip. Class¹ 15

Equipment Description BATTERY BANK

Location: Bldg. CB

Floor El. 33'-0"

Room, Area 24 Battery Room

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

No, the anchorage configuration verification is not required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Yes the anchorage is free of bent, broken, missing or loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

¹ Enter the equipment class name from EPR1 1025286, Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-071

Equipment ID No. BATT24

Equip. Class¹ 15

Equipment Description BATTERY BANK

5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
- Y N U N/A

Not applicable since component is not part of the anchorage configuration verification.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions?
- Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
- Y N U N/A

Block wall is seismically qualified by Computech report No. R547.01.

There is a 1½" gap between block and a perpendicular block wall. The gap was judged large enough to prevent seismic pounding of the two walls by the walk down team.

8. Are 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 is out. This is not a seismic concern. CR IP2-2012-06351 issued for tracking purposes.

9. Do attached lines have adequate flexibility to avoid damage?
- Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?
- Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

ATTACHMENT 9.6
Sheet 3 of 4

SEISMIC WALKDOWN CHECKLIST FORM
IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-071

Equipment ID No. BATT24

Equip. Class¹ 15

Equipment Description BATTERY BANK

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

*References: Drawings and AWC
Drawings: A206640, Rev 10, Arrangement of equipment in cable spread room elevation 33'-0"
AWC-016*

Evaluated by: Stephen Yuan  Date: 10/10/2012

Nick Crispell  10/10/2012

Dragos Nuta  10/10/2012

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 4 of 4

IP2

Seismic Walkdown Checklist (SWC) SWEL1-071

Status: Y N U

Equipment ID No. BATT24

Equip. Class¹ 15

Equipment Description BATTERY BANK

Photographs

No photo due to restriction of EN-DC-217

Note:

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-072

Equipment ID No. MI9

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 21

Location: Bldg. CB

Floor El. 33'-0"

Room, Area _____

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

Yes the anchorage configuration verification is required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Yes the anchorage is free of bent, broken, missing or loose hardware.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

¹ Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 5

IP2Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-072**Equipment ID No. MI9Equip. Class¹ 16Equipment Description BATTERY CHARGER 21

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 matches drawing 011D13800.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Gap between the cabinet and adjacent frame west of the cabinet is 0.5". This seismic separation requires analysis to determine adequacy. LB-08 was performed to resolve.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

Florescent bulbs overhead are unsecured and could fall out of the light fixture. Hard target cabinet will protect internals from damage. Judged acceptable. CR IP2-2012-06120 tracks installation of wires to tie florescent bulb to fixture for good seismic housekeeping.

Masonry block wall is seismically qualified by Computech Report no. R547.01 as discussed in SQUG SEWS.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-072

Equipment ID No. MI9

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 21

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Internals of cabinet could not be examined at time of inspection per OPS personnel as cabinet was active.

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

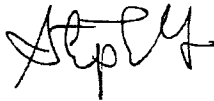
Comments (Additional pages may be added as necessary)

References: Drawings and AWC

Drawings: A206640, Rev 10. Arrangement of equipment in cable spreading room, elev. 33' 011D13800, Rev 7. Outline for the battery charger 22,24,21 and 23.

AWC-004

Evaluated by: Stephen Yuan



Date: 10/11/2012

Nick Crispell



10/11/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-072

Equipment ID No. M19

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 21

Photographs



Note: Battery charger 21



Note: Battery charger 21 is cabinet on right

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 5 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-072

Equipment ID No. MI9

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 21



Note: *Battery charger 21*

Note:

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. EGA3

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 24

Location: Bldg. CB

Floor El. 33'-0"

Room, Area _____

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

Yes the anchorage configuration verification is required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Anchorage of internal components to cabinet could not be inspected as operations is not allowed to open cabinet when cabinet is powered. Cabinet is to be powered down, opened and internals inspected.

Anchorage of cabinet to concrete floor is external to cabinet and was inspected.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

¹ Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

ATTACHMENT 9.6**SEISMIC WALKDOWN CHECKLIST FORM**

Sheet 2 of 4

IP2

Status: Y N U **Seismic Walkdown Checklist (SWC) SWEL1-073**Equipment ID No. EGA3Equip. Class¹ 16Equipment Description BATTERY CHARGER 24

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.)

One Hilti anchor bolt is 3/8" diameter not 1/2 per DWG 011D13800-7. Smaller anchor bolt was documented by SQUG (SEWS) and is therefore seismically acceptable.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Yes soft targets are free from impact by nearby equipment or structures.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

Masonry wall is qualified by computech report no. R547.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 4

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. EGA3

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 24

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

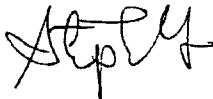
References: Drawings and AWC

Drawings: 011D13800, Rev 7, Outline for battery charger 22,24,21 & 23

A206640, Rev 10, Arrangement of equipment in cable spreading room elev. 33'

AWC-004

Evaluated by: Stephen Yuan



Date: 10/11/2012

Nick Crispell



10/11/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-073

Equipment ID No. EGA3

Equip. Class¹ 16

Equipment Description BATTERY CHARGER 24

Photographs



Note: *3/8" anchor on north-west corner*



Note: *North-east corner*

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-074

Equipment ID No. EGA1

Equip. Class¹ 16

Equipment Description 10 KVA STATIC INVERTER #21

Location: Bldg. CB

Floor El. 33'-0"

Room, Area _____

Manufacturer, Model, Etc. (optional but recommended) _____

Instructions for Completing Checklist

This checklist may be used to document the results of the Seismic Walkdown of an item of equipment on the SWEL. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N

Yes the anchorage configuration verification is required.

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A

Anchorage of internal components to cabinet could not be inspected as operations is not allowed to open cabinet when cabinet is powered. Cabinet is to be powered down, opened and internals inspected.

Anchorage of cabinet to concrete floor is external to cabinet and was inspected.

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A

Yes the anchorage is free of corrosion that is more than mild surface oxidation.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A

Yes, the anchorage is free of visible cracks in the concrete near the anchor.

¹ Enter the equipment class name from EPRI 1025286, Appendix B: Classes of Equipment.

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-074

Equipment ID No. EGA1

Equip. Class¹ 16

Equipment Description 10 KVA STATIC INVERTER #21

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 matches description provided in SQUG (SEWS) and DWG 011D13800-7.

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Yes based on the above anchorage evaluations, the anchorage is free of potentially adverse seismic conditions.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A

Yes soft targets are free from impact by nearby equipment or structures.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A

Masonry wall qualified by computech report no. R547.01 per SQUG (SEWS).

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

Yes attached lines have adequate flexibility to avoid damage.

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Yes based on the above seismic interaction evaluations, the equipment is free of potentially adverse seismic interaction effects.

ATTACHMENT 9.6

SEISMIC WALKDOWN CHECKLIST FORM

Sheet 3 of 5

IP2

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-074

Equipment ID No. EGA1

Equip. Class¹ 16

Equipment Description 10 KVA STATIC INVERTER #21

Other Adverse Conditions

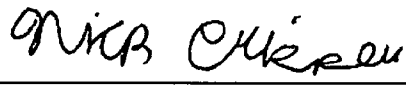
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Yes we have looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment.

Comments (Additional pages may be added as necessary)

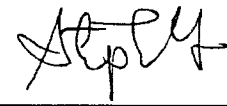
*References: Drawings and AWC
Drawings: A206640, Rev 10, arrangement of equipment in cable spreading room elev. 33'.
AWC-004*

Evaluated by: Nick Crispell



Date: 10/11/2012

Stephen Yuan



10/11/2012

Status: Y N U

Seismic Walkdown Checklist (SWC) SWEL1-074

Equipment ID No. EGA1

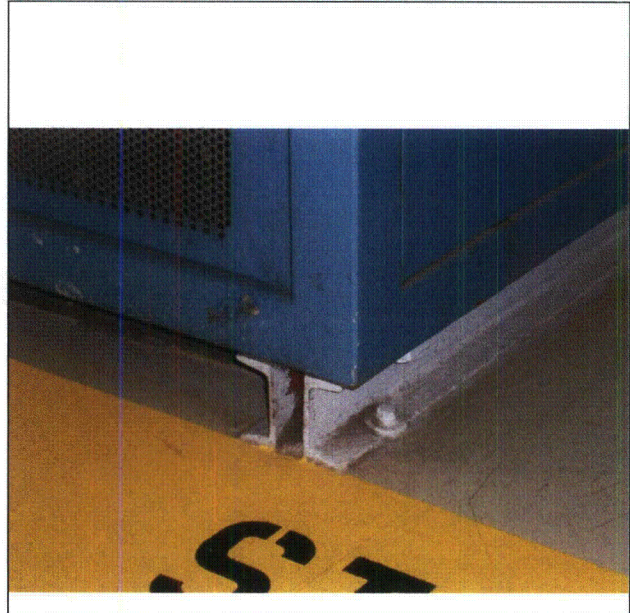
Equip. Class¹ 16

Equipment Description 10 KVA STATIC INVERTER #21

Photographs



Note: Cabinet



Note: North west anchor