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November 27, 2012

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Serial No. 12-206H
NL&OSWDC R0
Docket No. 50-305
License No. DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
REPORT IN RESPONSE TO MARCH 12, 2012 INFORMATION REQUEST
REGARDING SEISMIC ASPECTS OF RECOMMENDATION 2.3

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued, "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," to all power reactor licensees and holders of construction permits in active or deferred status. Seismic Recommendation 2.3 requires licensees to conduct seismic walkdowns at their plants to identify and address plant specific degraded, nonconforming, or unanalyzed conditions such that the nuclear power plant can respond to external events.

For Seismic Recommendation 2.3, Enclosure 3 of the letter states that within 180 days of the NRC's endorsement of the walkdown process, each licensee will submit its final response. The response should include a list of any areas that are unable to be inspected due to inaccessibility and a schedule for when the walkdowns will be completed.

In a letter dated May 31, 2012, the NRC endorsed EPRI 1025286, "Seismic Walkdown Guidance: For Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic," which Dominion Energy Kewaunee, Inc. (DEK) used to conduct its seismic walkdowns for Kewaunee Power Station (KPS). Attachment 1, on the attached compact disc, provides the walkdown report as DEK's response to Seismic Recommendation 2.3 for KPS. Attachment 2 provides a list of items for which inspections could not be completed due to inaccessibility and a schedule of when the walkdowns for these items will be completed. A supplemental submittal will be provided to the NRC with the results of the deferred seismic walkdowns by March 31, 2014.

On November 2, 2012, DEK informed the NRC of its plans to permanently cease power operation of KPS. The commitments made in this letter are based on continued power operations. DEK notes that if power operations cease and the reactor is permanently defueled, the commitments made in this letter will no longer be implemented.

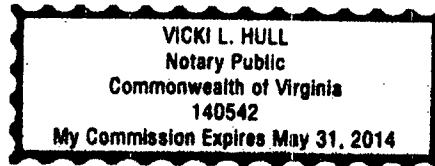
ADDI
NRR

If you have any questions regarding this information, please contact Craig Sly at (804) 273-2784.

Sincerely,



David A. Heacock
President and Chief Nuclear Officer
Dominion Energy Kewaunee, Inc.



COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by David A. Heacock, who is President and Chief Nuclear Officer of Dominion Energy Kewaunee, Inc. He has affirmed before me that he is duly authorized to execute and file the foregoing document in behalf of that company, and that the statements in the document are true to the best of his knowledge and belief.

Acknowledged before me this 27TH day of November, 2012.

My Commission Expires: May 31, 2014
Vicki L. Hull
Notary Public

Commitments made in this letter:

1. Seismic walkdowns that could not be completed due to inaccessibility will be completed as indicated in Attachment 2, Table 3-1 and a supplemental submittal will be provided to the NRC by March-31, 2014.

Attachments:

1. Kewaunee Seismic Walkdown Summary Report
2. List of Inaccessible Items

cc: U.S. Nuclear Regulatory Commission, Region III
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NRC Senior Resident Inspector
Kewaunee Power Station

ATTACHMENT 1

(See attached compact disc)

KEWAUNEE SEISMIC WALKDOWN SUMMARY REPORT

**DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION**

ATTACHMENT 2

LIST OF INACCESSIBLE AREAS

**DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION**

Table 3-1: Deferred Walkdown Items

ID Number	Description	Location	Inspection Completion Schedule
BUS6	4160V SWITCHGEAR BUS 6	Administration Building	December, 2013
31704/SW901A-1	Header 1A Shroud CLG Coil A/B Bypass	Containment	December, 2013
32116/RHR1A	RCS Loop A Supply to RHR Pumps	Containment	December, 2013
155-011	Fan Coil Unit Containment 1A	Containment	December, 2013
RBV150A/34130	CNTMT Fan Coil A Disch Damper	Containment	December, 2013
21083	PRZR Pressure Relief Tank Press XMTR	Containment	December, 2013
15124	Rx Coolant loop A Cold leg RTD	Containment	December, 2013
JB2659	Neutron Flux Monitoring Junction Box	Containment	December, 2013
24013	Steam Generator IA Level Ind. XMTR	Containment	December, 2013
MCC52A*	MCC Bus 52A	Administration Building	December, 2013
MCC52C*	MCC Bus 52C	Turbine Building	December, 2013
MCC52E*	MCC Bus 52E	Auxiliary Building	December, 2013
MCC52F*	MCC Bus 52F	Auxiliary Building	December, 2013
RD106*	Reactor Trip Breaker	Auxiliary Building	December, 2013
BRA106*	Instrument Bus Transformer	Turbine Building	December, 2013
STARTER01*	AFW10A/MV32027 A X- over Valve	Turbine Building	December, 2013
BRA111*	Inverter (Instrument Bus I)	Turbine Building	December, 2013
BRA112*	Inverter (Instrument Bus IV)	Turbine Building	December, 2013

* Walkdown inspection complete with the exception of access to electrical cabinet internally mounted items.

**Dominion Energy Kewaunee, Inc.
Kewaunee Power Station**

Seismic Walkdown Summary Report

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

November, 2012

Executive Summary

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) staff issued requests for information pursuant to 10 CFR 50.54(f) related to the Near Term Task Force (NTTF) recommendations. Enclosure 3 of the NRC's 50.54(f) letter requested utilities to provide information related to NTTF Recommendation 2.3: Seismic, as amended by the SRMs associated with SECY-11-0124 and SECY-11-0137. The nuclear power industry and the NRC cooperatively developed guidelines and procedures to perform the seismic walkdowns. The resulting EPRI Report No. 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic* (EPRI 1025286) provides guidance and procedures for performing the seismic walkdowns.

Dominion followed the EPRI 1025286 guidance in developing the Seismic Walkdown Equipment List (SWEL), performing the Kewaunee Power Station (KPS) seismic walkdowns and developing the submittal report. Seismic walkdowns of accessible items have been completed. Some items included on the SWEL were not sufficiently accessible to complete the walkdown inspection. Walkdowns for these items are planned to be completed by the end of the next scheduled refueling outage (Fall 2013). A revised Summary Report will be issued following completion of the seismic walkdowns.

By completing and documenting the requested seismic walkdowns for KPS, Dominion has met the objectives of the NRC request for information related to NTTF Recommendation 2.3: Seismic. Potentially adverse conditions identified during the completed seismic walkdowns and area walk-bys were submitted as Condition Reports (CRs) in the KPS corrective action program (CAP). To date, no significant issues that challenged the KPS seismic licensing or design basis have been identified as a result of the walkdowns.

Kewaunee Power Station Seismic Walkdown Summary Report

Table of Contents

<u>SECTION</u>	<u>PAGE</u>
Executive Summary	ii
Background	iv
1.0 Seismic Licensing Basis Summary	1-1
2.0 Personnel Qualifications Summary	2-1
2.1 Equipment Selection	2-1
2.2 Seismic Walkdowns	2-1
2.3 Licensing Basis Evaluations	2-1
2.4 IPEEE Review	2-1
2.5 Peer Review	2-1
3.0 SSC Selection	3-1
3.1 Purpose	3-1
3.2 Methodology	3-1
3.3 Results	3-3
3.4 Inaccessible Items	3-5
4.0 Seismic Walkdowns and Area Walk-Bys	4-1
5.0 Licensing Basis Evaluation	5-1
5.1 Summary of Evaluations	5-1
5.2 Plant Modifications	5-1
6.0 IPEEE Vulnerabilities	6-1
7.0 Peer Review Summary	7-1
8.0 References	8-1

- Appendix A Personnel Qualifications (4 pages)
- Appendix B.1 Base List 1 (67 pages)
- Appendix B.2 Seismic Walkdown Equipment List (SWEL) (17 pages)
- Appendix B.3 Area Walk-by List (3 pages)
- Appendix C Seismic Walkdown Checklists (286 pages)
- Appendix D Area Walk-by Checklists (132 pages)

Background

Following the accident at the Fukushima Daiichi nuclear power plant resulting from the March 11, 2011, Great Tohoku Earthquake and subsequent tsunami, the NRC established the Near Term Task Force (NTTF) in response to Commission direction. The NTTF was tasked with conducting a review of NRC regulations and processes, and determining if the NRC should make additional improvements.

A set of recommendations made by the task force was included in a report provided to the Commission. Although the NRC concluded that continued plant operation did not pose an imminent risk to public health and safety, the Commission directed the NRC staff (in the Staff Requirements Memorandum (SRM) to SECY-11-0093) to determine those recommendations that should be implemented without unnecessary delay. In SECY-11-0124, the NRC staff identified the NTTF recommendations that should be implemented without delay, including the development of information requests to be made under 10 CFR 50.54(f).

The NRC issued the requests for information pursuant to 10 CFR 50.54(f) on March 12, 2012 related to the following NTTF recommendations (Reference 1):

- Recommendation 2.1: Seismic
- Recommendation 2.1: Flooding
- Recommendation 2.3: Seismic
- Recommendation 2.3: Flooding
- Recommendation 9.3: Emergency Preparedness

Enclosure 3 of the NRCs 50.54(f) letter addressed providing information related to NTTF Recommendation 2.3: Seismic, as amended by the SRMs associated with SECY-11-0124 and SECY-11-0137. Enclosure 3 requested that licensees:

1. Develop a methodology and acceptance criteria for seismic walkdowns to be endorsed by the NRC staff,
2. Perform seismic walkdowns using the NRC-endorsed walkdown methodology,
3. Identify and address degraded, nonconforming, or unanalyzed conditions through a corrective action program, and
4. Verify the adequacy of licensee monitoring and maintenance procedures.

The nuclear power industry and the NRC agreed to cooperate in the development of guidelines and procedures to perform the seismic walkdowns. The resulting EPRI Report No. 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic* (EPRI 1025286) (Reference 2) provides guidance and procedures for performing the seismic walkdowns. The guidance addresses selection of personnel, selection of a sample of structures, systems, and components (SSCs) that represent a diversity of component types and ensures inclusion of components from critical systems and functions as described in the NRCs 50.54(f) letter, conduct of the walkdowns, evaluations against the plant seismic licensing basis, and reporting requirements. EPRI 1025286 also includes checklists to be used by the seismic walkdown engineers for seismic evaluations.

The guidance contained in EPRI 1025286 was developed to meet NRC's objectives, and in a letter dated May 31, 2012 (Reference 3), the NRC confirmed that the EPRI 1025286 guidance directs licensees to perform walkdowns in a manner that will address Requested Information Items 1.a through 1.g in the 50.54(f) letter. The NRC staff also confirmed that Section 8, "Submittal Report," of the EPRI 1025286 guidance outlines the appropriate information to be submitted in response to Requested Information Items 2.a through 2.f. of Enclosure 3 of the 50.54(f) letter.

Dominion used the EPRI 1025286 guidance in developing and performing the seismic walkdowns at Kewaunee Power Station (KPS) in response to the NRC's 50.54(f) letter. In addition, Dominion followed the EPRI 1025286 Section 8 guidance for the development of this Report.

1.0 Seismic Licensing Basis Summary

The seismic licensing basis for KPS is documented in the Updated Safety Analysis Report (USAR) (Reference 4). The USAR describes the design basis earthquake (DBE) loads and their application to structures and components. The design basis functions with regard to seismic design are in USAR Section B.6, *Design Criteria for Structures*. This section requires that, for a DBE, the reactor can be safely shut down and that there is no uncontrolled release of radioactivity.

The Preliminary Safety Analysis Report (PSAR) for KPS was issued in January 1968 and indicated that the plant was to be designed, constructed and operated in accordance with the intent of the July 10, 1967, proposed General Design Criteria (GDC). Initially a Dames & Moore Report concluded that the appropriate value for horizontal peak ground acceleration (PGA) was 0.10g for the DBE at KPS. A final design PGA of 0.12 g for the DBE was based on the recommendations of the US Coast and Geodetic Survey (USC&GS). USAR Appendix A, Plate 8B showing 0.12g as the PGA value for the DBE was submitted to the Atomic Energy Commission (AEC), and the value for the DBE PGA of 0.12g was accepted. A report from Newmark and Hall, consultants to the AEC, characterized the vertical earthquake as two-thirds of the maximum horizontal earthquake. The report also stated that the maximum horizontal and vertical responses are added linearly to existing loads such as dead and live loads.

The current structural design criteria are unchanged from the original structural design philosophy that the AEC concurred with during the original plant licensing process. The design philosophy for equipment component seismic design has been subject to significant changes since issuance of the original operating license. In 1995, KPS submitted a report summarizing the results of its Unresolved Safety Issue (USI) A-46 implementation program including safe shutdown path selection, equipment selection, equipment seismic evaluation, relay evaluation, and a list of all identified outliers (Reference 5). KPS adopted the methodology in the Generic Implementation Procedure (GIP) for Seismic Evaluation of Nuclear Plant Equipment as an alternative means of evaluating and seismically verifying new and replacement equipment. The methodology for equipment seismic design is described in USAR Section B.7, *Design Criteria for Components*.

Codes, standards, and methods related to the definition of the DBE and the design of structures and components for KPS can be found in USAR Sections 1.3.1 and 2.10, Chapter 5, and Appendix B, *Special Design Procedures*.

2.0 Personnel Qualifications Summary

A summary of the requirements, as outlined in EPRI 1025286 (Reference 2), for different seismic activities is provided as follows.

2.1 Equipment Selection

Personnel responsible for equipment selection should have knowledge of plant operations, plant documentation, and associated SSCs. They should have the capability to select a broad distribution of SSCs for the Seismic Walkdown Equipment List (SWEL). The Equipment Selection Personnel should also have knowledge of the Individual Plant Examination for External Events (IPEEE) program.

Equipment Selection Personnel: Tim Corbin, David Lohman, supported by licensed plant operators, and design and systems engineering personnel.

2.2 Seismic Walkdowns

The seismic walkdown engineers (SWEs) should have a degree in mechanical or civil/structural engineering, or equivalent; and experience in seismic engineering as it applies to nuclear power plants. In addition, the SWEs must successfully complete one of the following two training courses: NTTF 2.3 Seismic Walkdown Training Course or SQUG Walkdown Training Course.

SWEs: Ellery Baker, Tim Corbin, Glenn A. Gardner, Ronald Little, Daniel J. Vasquez, and Tim Wattleworth

2.3 Licensing Basis Evaluations

All potentially adverse seismic conditions were documented and evaluated within the corrective action program (CAP); no licensing basis evaluations of potentially adverse seismic conditions were performed outside of the corrective action program defined by plant procedures.

2.4 IPEEE Review

Reviewers should have adequate engineering experience to review and understand the results of the IPEEE program.

IPEEE Reviewer: Tim Corbin, Daniel J. Vasquez

2.5 Peer Review

The peer review team should consist of a minimum of two individuals, one of whom has seismic engineering experience as it applies to nuclear power plants.

Peer Reviewers: Marc Hotchkiss (Team Lead), Joe McNamara, and Leo Nadeau.

Appendix A provides the qualifications of the personnel involved in performing the seismic walkdown activities at KPS.

3.0 SSC Selection

3.1 Purpose

This section describes the process used to develop the seismic walkdown equipment list (SWEL), and documents the resulting SWEL and Area Walk-by list, in response to NRC's 10 CFR 50.54(f) letter dated March 12, 2012 (Reference 1). The SWEL was developed using the guidance provided in EPRI 1025286 (Reference 2) and defines the scope of the seismic walkdowns.

3.2 Methodology

EPRI 1025286, Section 3: *Selection of SSCs*, describes the process to be used to identify items to be included on a SWEL. In general, the SWEL is comprised of two groups of items. The first is a sample of components from the seismic safe shutdown equipment list (SSEL). The other is a sample of components associated with the spent fuel pool. These lists are designated as SWEL 1 and SWEL 2, respectively. SWEL 1 and SWEL 2 are combined to form the SWEL, which defines the overall scope of equipment used as input to the seismic walkdowns. Additional information regarding the process used to develop the SWEL is provided below.

SWEL 1 Development

The base equipment list used as a starting point for development of the SWEL 1 list was the SSEL developed to address NRC Unresolved Safety Issue (USI) A-46, "Seismic Qualification of Equipment in Operating Plants."

The development of the SSEL included consideration of the following four safety functions:

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

Consistent with the guidance in EPRI 1025286, the SSEL was reviewed for items that support the following safety function:

- Containment function

In addition, the SSEL was reviewed by a licensed operator to identify updates to the SSEL that were required as a result of safe shutdown flowpath changes implemented since the SSEL was initially developed.

SWEL 1 was developed by applying the following five sample selection attributes, defined in EPRI 1025286, to the SSEL. The required sample size for SWEL 1 was 90 to 120 items. The method of application for each attribute is summarized below:

1. A variety of types of systems. Sample items were selected to represent a broad range of frontline and support systems included on the SSEL.

2. Major new and replacement equipment. A review of the equipment on the SSEL was performed to identify major new or replacement equipment installed within the last 15 years, consistent with EPRI 1025286 guidance. These items were identified for inclusion in the selection of the samples for SWEL 1.
3. A variety of types of equipment. At least one item from each of the classes of equipment listed in EPRI 1025286, Appendix B, *Classes of Equipment* was included on SWEL 1 to provide a sample selection of a variety of equipment types. Where no items were listed on the SSEL for a specific class of equipment, no items in that equipment class were selected for SWEL 1.
4. A variety of environments. Sample items were selected from different locations in the plant to include various environments (hot, cold, dry, wet) and inside and outside installations.
5. Equipment enhanced due to vulnerabilities identified during the IPEEE program. The USI A-46 and IPEEE program documentation was reviewed to determine equipment that had been modified or otherwise enhanced to reduce IPEEE vulnerabilities. These items were identified for inclusion in the selection of the samples for SWEL 1.

For each item on SWEL 1, the applicable supported safety function(s) are identified as a confirmation that the five safety functions discussed above are adequately represented. In addition, risk significant items on the SWEL 1 list were identified from a review of the Probability Risk Assessment (PRA) Risk Analysis notebooks and the Maintenance Rule Scoping Matrix. This information was reviewed by PRA subject matter experts as confirmation that risk insights are adequately considered in the development of SWEL 1.

SWEL 2 Development

SWEL 2 was developed based on a review of systems associated with the spent fuel pool (SFP) that are Seismic Category I or components whose failure could result in a rapid drain-down of the water level in the SFP to less than ten feet above the fuel.

For Seismic Category I systems associated with the SFP, a sample of components was identified using selection criteria similar to that described for SWEL 1.

Any components whose failure could result in rapid drain-down of the SFP were to be identified and evaluated for addition to SWEL 2. Identified components that met the criteria for inclusion in the seismic walkdowns were to be added to SWEL 2. If no component failures were identified that could result in rapid drain-down of the SFP, no components were added to SWEL 2, and the basis for this conclusion was described.

SWEL

The SWEL was developed by combining the items on SWEL 1 and SWEL 2.

The items on the SWEL were reviewed to determine the population of items with anchorage, and at least 50% of those items were selected to undergo a configuration verification of the installed anchorage during the associated seismic walkdown.

The SWEL serves as the input to the seismic walkdowns conducted in accordance with EPRI 1025286 Section 4, *Seismic Walkdowns and Area Walk-Bys*. A walk-by area is defined as the

room containing SWEL item(s), or in the case of a large open space, the area within a 35 foot radius around a SWEL item. Walk-by areas are defined to ensure that all items on the SWEL are included within a walk-by area.

3.3 Results

The methodology described in Section 3.2 was applied to develop the SWEL and the Area Walk-by list. The results of the implementation of this methodology are provided below.

The SWEL was developed by personnel meeting the qualifications for equipment selection personnel described in Section 2.1. Qualifications of personnel involved in the development of the SWEL are identified in Appendix A.

SWEL 1

The SSEL developed to address USI A-46 was the starting point (termed Base List 1 in EPRI 1025286) for development of the SWEL 1. The SSEL is provided in Appendix B.1. This SSEL was reviewed by licensed operations personnel to identify any updates required as a result of safe shutdown flowpath changes since the list was developed. In addition, three seismic category I components (RHR Pump 1B, RHR Heat Exchanger A, and Internal Containment Spray MOV 5A) that support the Containment function were added. The list in Appendix B.1 is marked to indicate changes from this review.

The five sample selection attributes, described in Section 3.2, were applied to the SSEL. The results are summarized for each attribute below:

1. A variety of types of systems. Sample items were selected to represent a broad range of frontline and support systems included on the SSEL. The number of selected items associated with each of the represented systems is provided in Appendix B.2.
2. Major new and replacement equipment. A review of the equipment on the SSEL was performed by experienced system engineers, design engineers, and plant operators to identify major new or replacement equipment installed within the last 15 years. The review was based on plant design change records, maintenance history, and reviewer experience. A sample of these items is included in SWEL 1. Twenty of the 101 components on SWEL 1 were judged to fit the definition of major new or replacement equipment.
3. A variety of types of equipment. At least one item from each of the classes of equipment listed in EPRI 1025286, Appendix B: *Classes of Equipment* was included in SWEL 1 to provide a sample selection of a variety of equipment types. The number of items from each of the equipment classes is identified in Appendix B.2. There were no items listed on the SSEL for equipment classes 11 and 13, and no items are listed on SWEL 1 for those equipment classes..
4. A variety of environments. Sample items were selected from different locations in the plant to include various environments (hot, cold, dry, wet). The installed location is identified for each of the SWEL 1 items, which provides an indication of the operating environment for the item.

5. Equipment enhanced due to vulnerabilities identified during the IPEEE program. The IPEEE and USI A-46 program documentation was reviewed to determine equipment that had been modified or otherwise enhanced to reduce IPEEE vulnerabilities. Twelve of these items are included on the SWEL 1 list.

The resulting sample size of the equipment for the SWEL 1 list was 101 items. For each item on the list, the applicable supported safety function(s), listed below, were identified and indicated:

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

In addition, risk significant items on SWEL 1 were identified. This information was reviewed by PRA subject matter experts as confirmation that risk insights were adequately considered in the development of SWEL 1. As a result, 52 of the 101 items on SWEL 1 were identified as being risk significant.

SWEL 2

SWEL 2 was developed based on a review of systems associated with the spent fuel pool (SFP) that are Seismic Category I or components whose failure could result in a rapid drain-down of the water in the SFP to less than ten feet above the top of the fuel. The review was supported by a licensed operator and knowledgeable system engineers.

The following Seismic Category I systems associated with the SFP were identified:

- Service Water System
- Spent Fuel Pool Cooling and Clean-up System

These systems were then reviewed using the walkdown item sample selection criteria similar to that used for SWEL 1, consistent with the guidance in EPRI 1025286. The Base List 2 and the items identified for inclusion in SWEL 2 are identified in Appendix B.2.

Service Water System

Large portions of the Service Water System were already included on the SSEL and SWEL 1. The drawings related to the Service Water System make-up to the SFP were reviewed, and no new Service Water System SSCs were identified for SWEL 2.

Spent Fuel Pool Cooling and Cleanup System

The Spent Fuel Pool Cooling and Cleanup System interfaces with the SFP. The seismic category I components that are appropriate for the equipment walkdown process, consistent with EPRI 1025286 guidance, comprise Base List 2. A sample of these components was selected to form the SWEL 2 list.

Rapid Drain-down

Systems interfacing with the SFP were reviewed to identify any components that could, upon failure, result in rapid drain-down of the SFP water level to below ten feet above the top of the fuel. USAR Table 9.5-2, *Design Conformance with Safety Guide 13*, Design Feature Item 6, states:

No drains have been provided for the spent fuel storage pool. Because the pump suction connections for the Spent Fuel Pool Cooling and Cleanup System extend no more than 2 ft below the normal pool water level, there is no possibility of inadvertently draining pool water below that level. To ensure adequate cooling of the stored fuel assemblies, pool water return lines from the system extend down into the pool to an elevation above the top of the fuel racks. However, to ensure against inadvertently draining of the pool by a siphon effect, each return line has a check valve to prevent reverse flow.

Therefore, there are no components that could, upon failure, result in rapid drain-down of the SFP water level to below ten feet above the top of the fuel and, as a result, no components have been added to SWEL 2 for this criterion.

SWEL

The SWEL was developed by combining the items on SWEL 1 and SWEL 2. The SWEL is provided in Appendix B.2. All items on the list are from SWEL 1 except those items indicated by footnote as originating from SWEL 2.

The items on the SWEL were reviewed to identify those that included anchorage (i.e., items that were not line-mounted equipment, such as valves). 40 of the 76 items that included anchorage (53%) were selected for confirmation that the as-installed equipment anchorage is consistent with plant documentation of the anchorage design. The anchorage items selected for confirmation are indicated by a note on the SWEL.

This list is the input to the seismic walkdowns to be conducted in accordance with EPRI 1025286, Section 4 *Seismic Walkdowns and Area Walk-Bys*.

Walk-by areas were identified to include all of the items on the SWEL and are listed in Appendix B.3.

3.4 Inaccessible Items

In the process of selecting SSCs to be included on the SWEL, items that were accessible and have visible anchorage were selected wherever possible. However, there were 18 items included on the SWEL that were not sufficiently accessible to complete the walkdown inspection. These items are listed in Table 3-1 below and indicated by a footnote on the SWEL (Appendix B.2). The walkdowns for these items are planned to be completed by the end of the next scheduled refueling outage (Fall 2013).

Table 3-1: Deferred Walkdown Items

ID Number	Description	Location	Inspection Completion Schedule
BUS6	4160V SWITCHGEAR BUS 6	Administration Building	Fall 2013 RFO
31704/SW901A-1	Header 1A Shroud CLG Coil A/B Bypass	Containment	Fall 2013 RFO
32116/RHR1A	RCS Loop A Supply to RHR Pumps	Containment	Fall 2013 RFO
155-011	Fan Coil Unit Containment 1A	Containment	Fall 2013 RFO
RBV150A/34130	CNTMT Fan Coil A Disch Damper	Containment	Fall 2013 RFO
21083	PRZR Pressure Relief Tank Press XMTR	Containment	Fall 2013 RFO
15124	Rx Coolant loop A Cold leg RTD	Containment	Fall 2013 RFO
JB2659	Neutron Flux Monitoring Junction Box	Containment	Fall 2013 RFO
24013	Steam Generator IA Level Ind. XMTR	Containment	Fall 2013 RFO
MCC52A*	MCC Bus 52A	Administration Building	Fall 2013 RFO
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MCC52E*	MCC Bus 52E	Auxiliary Building	Fall 2013 RFO
MCC52F*	MCC Bus 52F	Auxiliary Building	Fall 2013 RFO
RD106*	Reactor Trip Breaker	Auxiliary Building	Fall 2013 RFO
BRA106*	Instrument Bus Transformer	Turbine Building	Fall 2013 RFO
STARTER01*	AFW10A/MV32027 A X-over Valve	Turbine Building	Fall 2013 RFO
BRA111*	Inverter (Instrument Bus I)	Turbine Building	Fall 2013 RFO
BRA112*	Inverter (Instrument Bus IV)	Turbine Building	Fall 2013 RFO

* Walkdown inspection complete with the exception of access to electrical cabinet internally mounted items.

4.0 Seismic Walkdowns and Area Walk-Bys

The seismic walkdowns and area walk-bys were performed consistent with the guidance provided in EPRI 1025286 (Reference 2).

A site-specific procedure was developed to implement the EPRI 1025286 seismic walkdown guidance for conducting and documenting the seismic walkdowns. A walkdown package was prepared for each component listed on the SWEL and for each area walk-by to be performed. Each package included a seismic walkdown checklist (SWC) or an area walk-by checklist (AWC), and the drawing(s) showing equipment location, plant documentation showing the anchorage details for each SWEL item requiring anchorage configuration verification, and documents from prior seismic walkdowns (e.g., Seismic Evaluation Work Sheets (SEWS) from USI A-46 walkdowns), as applicable. A hardcopy of the package was available for the SWEs during performance of the equipment walkdown or area walk-by.

The seismic walkdowns and area walk-bys were performed by walkdown teams, which consisted of at least two (2) qualified SWEs.

For the seismic walkdowns, the SWEs focused on the following adverse seismic conditions associated with each item of equipment as described in the EPRI 1025286 guidance:

- adverse anchorage conditions,
- adverse seismic spatial interactions, and
- other adverse seismic conditions.

The purpose of the area walk-bys was to identify potentially adverse seismic conditions associated with other SSCs located in the vicinity of the SWEL items. For the area walk-bys, SWEs focused on the following potentially adverse seismic conditions as described in the EPRI 1025286 guidance:

- anchorage conditions (if visible without opening equipment),
- significantly degraded equipment in the area,
- condition of cable/conduit raceways, including condition of supports or fill conditions, and HVAC ducting,
- potential adverse seismic interactions including those that could cause flooding, spray, or a fire in the area, and
- housekeeping items that could cause adverse seismic interactions.

During the walkdown or walk-by, the walkdown teams discussed conditions and/or any findings in the field, reached agreement on the results of the walkdown, and documented results of the seismic walkdowns and area walk-bys on the checklists. The results of the completed seismic walkdowns are documented on SWCs, which are included as Appendix C. The results of the completed area walk-bys are documented on AWCs, which are included as Appendix D.

The SWEL includes 104 items to be walked down and 41 area walk-bys were defined. Of these, 86 walkdowns and 33 area walk-bys have been completed. The remaining items, 18 walkdowns and eight area walk-bys, have been deferred because the component or area was not sufficiently accessible to complete the walkdown inspection and walkdown checklists are not included in this report for those items. The schedule for performance of these deferred seismic walkdowns is described in Section 3.4.

Table 4-1 lists potentially adverse seismic conditions identified during the completed seismic walkdowns and area walk-bys. The items listed in Table 4-1 were submitted as condition reports (CRs) in the station CAP. Table 4-1 summarizes the potentially adverse seismic conditions, describes how the condition has been addressed, and provides the current status of the resolution. A low threshold was used to identify and document potential adverse conditions. In addition to items listed in Table 4-1, non-seismic related potentially adverse conditions, such as various housekeeping and material condition items, were identified by the walkdown teams and addressed through the CAP.

No significant issues that challenged the Kewaunee seismic licensing or design basis were identified as a result of the walkdowns completed to date. As indicated in Table 4-1, no planned or newly installed changes to the plant are required to resolve the items identified during the walkdowns.

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WD-SWEL-84	DR-102	CR481151	<u>Cabinet Anchor Bolt Gap</u> The anchors consist of four (4) ½ inch bolts threaded into steel channel which is anchored in the structural concrete floor. One of four bolt heads is approximately 1/8" above the cabinet base. The cabinet is bolted to the adjacent cabinets (DR-103, etc). There are no indications that this is a recent item (e.g., deformation of the plates or bolt, etc.).	Based on the rigidity of the cabinet, three (3) remaining installed anchors and attachment to the adjacent cabinets the loose anchor bolt does not challenge the seismic integrity of the cabinet.	Work Order initiated to tighten or replace anchor bolt.
KW-WB-003	EDG-1A Room	CR481153	<u>Seismic Housekeeping Observation – EDG-1A Room</u> A stored barricade stanchion base was not weighted and the uprights of three (3) stanchions were loose in the bases. A stored ladder is stored horizontally on floor and restrained at one end only. These conditions meet the Seismic Housekeeping procedure requirements, but could be improved.	Seismic housekeeping procedure requirements are met – improvement recommendation only.	N/A
KW-WD-SWEL-024	SW-10A	CR481180	<u>Tool Rack East of SW-10A does not positively restrain tools.</u> The tool rack has only straight, horizontal pegs for tool mounting. These pegs do not provide positive restraint of the mounted tools.	There are no seismic interaction concerns with any of the tools currently mounted on the rack. The tool hooks should be modified to more positively restrain the tools.	Work Order initiated to modify tool rack.

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WD-SWEL-101	153-351	CR481187	<u>Fuel Oil Day Tank Drawing Doesn't Match Field Installation</u> The anchorage for the fuel oil day tanks does not match plant drawings; it does match the existing analysis. There is no concern for seismic qualification of the tanks.	Revise the drawing to accurately reflect the field installation and seismic analysis.	Drawing updated - CLOSED.
KW-WD-SWEL-038	SW-301A	CR481188	<u>Potential Interaction for EDG 1A Oil Cooler Outlet</u> A large wrench was tied off of the piping near the EDG 1A Oil Cooler Outlet Valve using a length of chain. The wrench in the as-found condition was not a seismic interaction concern since there are no soft targets impacted. The potential exists for the wrench to be left so that the chain rests against soft targets becoming a potential interaction concern.	Relocate the wrench in order to preclude the possibility of it becoming a seismic interaction.	Work Order initiated to relocate wrench.
KW-WD-SWEL-13	145-441	CR481190	<u>Missing Concrete Anchor in Leg of Service Water Pump Platform</u> One of four concrete expansion anchors is missing in the southwest leg of the platform which is adjacent to SW Pump 1A1. This condition is enveloped by an evaluation of a similar condition that assumed one fully functional anchor and two partially functional anchors. The platform in that case was found to be seismically acceptable.	The missing anchor as-found condition is acceptable based on a previous evaluation that envelopes this condition.	Work Order initiated to install the missing anchor.

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WD-SWEL-12	145-151	CR481243	<u>Light Fixture has a Disconnected Support Chain</u> One of the four chains supporting the florescent light fixture above Component Cooling Pump 1A motor is disconnected.	The fixture is currently supported by two chains at one end and one chain at the other, and is not expected to fall and damage the motor or pump.	Work Order initiated to reconnect support chain to lighting fixture.
KW-WB-001	'A' Switchgear Room	CR481252	<u>Wall Mounted Clock</u> A clock was identified on the south wall of the switchgear room that is not well-secured to the wall. During a seismic event, there is a potential that this clock could fall and impact a cantilevered gage off the adjacent air compressor skid.	There is not an immediate functionality concern for this potential seismic interaction since impact from the clock may damage the gage, but will not leave the air compressor nonfunctional.	Work Order initiated to secure or relocate the clock.
KW-WB-008	NG-701	CR481254	<u>Support Anchor Missing at NG-701</u> A missing anchor bolt was identified at a U-bolt support immediately adjacent to valve NG-701. The anchor is one of two - the other bolt is installed satisfactorily, as are the other supports attached to the line.	Considering the minimal mass of the valve and associated lines, and that all other supports are installed satisfactorily, there is no threat to the functionality of this equipment or any other equipment in the area. This equipment is non-safety related and non-seismic.	Work Order initiated to install the missing anchor bolt.
KW-WD-SWEL-070	21090	CR481261	<u>Bent SA Line Rod Support</u> A bent rod support was identified in the overhead on a 1" NPS Station Air System line.	The bent rod support is fully capable of supporting the small diameter air line and there are no seismic interaction concerns.	Work Order initiated to repair bent rod support.

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WB-009	SI-P-1A Area	CR481289	<p><u>Emergency Light Lamp Above SI Pump A</u> An emergency light lamp above SI Pump A is supported in a manner that is susceptible to failure in a seismic event. The light is attached to a Unistrut member that is attached to a structural steel duct support via two clamps that provide gravity support through friction (set screws). This arrangement may loosen and slip during a seismic event.</p>	<p>The light is not likely to fall during a seismic event due to the presence of the redundant support. If the light were to break or fall, there are no soft targets in the area that could be adversely affected by the relatively low mass emergency light lamp.</p>	<p>Work Order initiated to reconfigure the support of the Unistrut item so that it does not rely on friction to provide vertical support.</p>
KW-WD-SWEL-041	132-131	CR481367	<p><u>Control Room AC Fan 1A South Side Panel Has Loose Screws</u> The Control Room AC Fan 1A south side panel has loose and missing screws. There are 36 screws total. Nine are loose, but not able to be pulled out. Two are loose and can be pulled out. Two are not installed.</p>	<p>The panel is found to be adequately secured with the approx. 64% remaining fully engaged screws and the approximately nine loose (and not able to be removed) screws that still provide some shear capacity. The panel is sheet metal construction and relatively light.</p>	<p>Work Order initiated to correct the loose and missing screws for the side panel.</p>
KW-WB-024	CRAC Room	CR481381	<p><u>Mineral Deposits on Instrument Rack Anchors</u> The stanchion base plate and its associated anchor bolts for pressure indicator 11570 inside the CRAC room has mineral deposits on it. The deposits appear to be from previous leakage of the overhead potable water line.</p>	<p>There is only minor surface corrosion present and there are no concerns for the structural qualification of the stanchion.</p>	<p>Work Order initiated to clean the deposits and recoat the steel items in the area.</p>

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WB-006	Screen House	CR481388	<u>Concrete Anchor in Chemical Injection Pipe Hanger</u> A concrete expansion anchor is missing in the base plate for a ceiling mounted small diameter non-safety related chemical injection pipe hanger in the screen house basement.	The hanger is anchored to the ceiling by two base plates with a total of seven concrete expansion anchors and remains structurally adequate with the missing anchor since seismic loads from the small diameter piping are small in comparison to the capacities of the remaining expansion anchors.	Initiated Engineering evaluation of the long-term acceptability of the missing anchor and recommend appropriate corrective action.
KW-WB-028	Tunnel Area	CR481415	<u>Missing Mounting Screw in Switch</u> One of the three mounting screws for an Instrument Air System alarm switch is missing. The switch is mounted to an instrument stand.	The switch remains firmly attached to the instrument stand with the two remaining mounting screws. Because the seven inch diameter device is small, the attachment to the stand is structurally adequate for design basis earthquake conditions pending replacement of the missing screw.	Work Order initiated to replace the missing mounting screw.
KW-WB-021	SFP Hx Area	CR481427	<u>S-Hooks on Lights Above SFP HX</u> Some S-hooks have not been crimped shut to ensure the light does not fall during a seismic event.	Specific light supports inspected and determined that the lights will not fall in a seismic event.	Work Order initiated to close the S-hooks associated with the lights above the SFP HX.
KW-WB-031	Auxiliary Building 586' EI.	CR481429	<u>Bent Strap Supports on Cable Tray</u> An electrical cable tray was identified with bent hold down straps at three locations.	The cable tray was continuously supported and the bent straps were determined not to result in failure of the cable tray during a seismic event.	Work Order initiated to repair bent straps on cable tray.

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WB-013	TDAFW Pump Room	CR481486	<p><u>Stanchion for Instrument With No Grout Under Baseplate</u> An instrument stanchion support was identified with no grout under the baseplate. The gap between finish floor and the underside of the baseplate is approximately 1", which exceeds the acceptance criteria of 1/4" for such a gap.</p>	The instrument support is not a seismic concern without grout installed considering the size of the anchors and the minimal loading applied by the single pressure indicator mounted on the stanchion.	Work Order initiated to install grout under the baseplate of the stanchion.
KW-WD-SWEL-064	16112	CR481541	<p><u>Abandoned Bracket not Firmly Attached to Instrument Stand</u> A structural steel angle was identified that is loosely bolted to the side of an instrument stand for a safety-related pressure switch.</p>	The bracket, although not firmly connected to the stand, has sufficient resistance to movement to prevent it from falling or rotating and interacting with safety-related equipment during a seismic event.	Work Order initiated to remove abandoned bracket on instrument stand.
KW-WD-SWEL-081	CR105	CR481654	<p><u>Less Than Full Thread Engagement on Electrical Panel Anchors</u> Less than full thread engagement was identified on three (3) of the sixteen (16) 3/4" J-bolts with Wilson anchor sleeves to secure the vertical panel to the floor. Three (3) anchors were identified short of full engagement by 2 to 3 threads.</p>	The panel remains seismically adequate in the as-found condition. An evaluation of the acceptability of control room panels with missing or less-than-full thread engagement anchorage conditions was previously performed. This evaluation envelops the as-found condition of panel CR105.	CLOSED

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WD-SWEL-082	CR106	CR481656	<p><u>Less Than Full Thread Engagement on Electrical Panel Anchors</u> Less than full thread engagement was identified on eight of the twenty ¾" J-bolts with Wilson anchor sleeves to secure the vertical panel to the floor. Four of these were previously evaluated as acceptable. Four additional anchors were identified short of full engagement by 2 to 3 threads.</p>	The panel remains seismically adequate in the as-found condition. An evaluation of the acceptability of control room panels with missing or less-than-full thread engagement anchorage conditions was previously performed. This evaluation envelops the as-found condition of panel CR106.	CLOSED
KW-WB-019	Relay Room	CR481992	<p><u>Permanent Storage Area - Relay Room South Side</u> Material was identified stored in a permanent storage area in the Relay Room in the vicinity of safety-related equipment, but not included as a storage area in the Plant Cleanliness and Storage Procedure.</p>	No seismic interaction targets were identified, and the stored items were determined not to be a seismic interaction hazard in the as-found condition. The Plant Cleanliness and Storage Procedure will be updated to include this storage area and applicable restraint requirements.	Corrective action assignment to revise the Plant Cleanliness and Storage Procedure to include this storage area and applicable restraint requirements.
KW-WB-022	Control Room	CR481998	<p><u>Housekeeping issue, Control room, cart stored behind CR-130</u> Maintenance cart was identified stored in the control room and was not restrained by securing to a seismic tie-off point as required by the Plant Cleanliness and Storage Procedure.</p>	The cart wheels were locked and the cart was stable and resistant to sliding. In the as-found condition, the cart did not create a seismic interaction hazard. Components in the vicinity of the cart were not sensitive to damage from the light-weight cart.	Cart was removed from the vicinity of safety-related equipment in the control room. CLOSED.

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WB-022	Control Room	CR482000	<p><u>Unsecured Cabinet in Control Room</u> An unsecured cabinet stored in the control room was identified that could overturn during a seismic event. The cabinet is located within 1.5x height to the safety-related Electrical Console A.</p>	<p>Electrical Console A is a robust steel structure which would not be damaged by interaction with the cabinet.</p>	<p>Cabinet has been relocated to prevent interaction with safety-related components. CLOSED.</p>
KW-WB-016	CC Heat Exchanger Area	CR482165	<p><u>Drawings do not Reflect As-Built Conditions of CC Heat Exchanger Anchors</u> The as-built condition of anchors was not properly reflected on the anchor drawing. It was noted that 1 of 4 anchors for the 1A CC Heat Exchanger and the 1B CC Heat Exchanger are short of full thread engagement by approximately one thread. An additional anchor for the 1B CC Heat Exchanger is short of full thread engagement by approximately three threads. All other anchors were observed to have full thread engagement. Except for a beveled washer used on one anchor for the 1A heat exchanger, none of the other anchors for the 1A or 1B CC Heat Exchangers use washers. The drawing generic anchor details for these anchors indicate the use of lock washers.</p>	<p>Lock washers are not necessary since the CC Heat Exchangers are not subject to forces which would loosen the anchor nuts. The use of a beveled washer on CC Heat exchanger 1A was previously documented. The anchor nuts were tight against the heat exchanger supports and the lack of washers was not a structural integrity concern. The seismic analysis for the heat exchangers determined that there would be no uplift forces on the anchors, only shear forces, and the lack of thread engagement does not impact an anchors capacity for resisting shear forces. Therefore, the as-found condition of the anchorage for the CC heat exchangers does not affect seismic capability.</p>	<p>Drawing update request initiated to reflect the as-found anchorage for the CC Heat Exchangers.</p>

Table 4-1: Potentially Adverse Seismic Conditions

SWC / AWC	Equipment ID	CAP	Description	Resolution	Status
KW-WB-016	CC Heat Exchanger Area	CR482181	<p><u>Light Fixture Attached to Pipe Hanger with Temporary Wire</u> Light fixture has been attached to a pipe hanger with a small gauge wire. This appears to be a temporary relocation the fixture to facilitate work on nearby equipment.</p>	<p>The temporary attachment of the wire to the pipe hanger is has negligible effect on the hanger ability to perform its design function as the hanger is very robust.</p>	<p>Work Order initiated to disconnect temporary support wire from pipe hanger.</p>

5.0 Licensing Basis Evaluation

The station CAP was used to document the evaluation of potentially adverse seismic conditions identified in Section 4.

5.1 Summary of Evaluations

There were no conditions identified during the seismic walkdowns completed to date that challenge the validity of the current plant seismic licensing or design basis.

5.2 Plant Modifications

There are no planned or newly installed changes to the plant as a result of implementation of the seismic walkdowns and area walk-bys completed to date.

As identified in Table 4-1, actions planned as a result of seismic walkdown findings include documentation updates, maintenance items, and engineering evaluations to document as-found conditions.

6.0 IPEEE Vulnerabilities

On June 28, 1991, the NRC issued Generic Letter (GL) 88-20, Supplement 4 (with NUREG-1407, *Procedural and Submittal Guidance*) requesting each licensee to perform an individual plant examination of external events (IPEEE) to identify plant-specific severe accident vulnerabilities and to report the results to the Commission together with any licensee-determined improvements and corrective actions. The results of the IPEEE Program for KPS were submitted in its Kewaunee Nuclear Power Plant IPEEE Summary Report in a letter dated June 28, 1994 (Reference 6). Table 7-1 of the Kewaunee IPEEE Summary Report provides the equipment outliers identified during walkdown evaluations for the seismic IPEEE review. Many of the outliers were listed as already resolved in Table 7-1, while others had not been resolved when the summary report was submitted.

On November 10, 1995, the Summary Report for Resolution of USI A-46 (Reference 5) for KPS was submitted, which identified outliers identified during the USI A-46 seismic and relay reviews, and addressed outliers which were unresolved from the IPEEE program. The USI A-46 Summary Report provided resolution for the USI A-46 outlier items, as well as resolution for items unresolved when the KPS IPEEE Summary Report was submitted.

NRC issued Kewaunee Nuclear Power Plant – Safety Evaluation for USI A-46 Program Implementation, Revision 0 on April 14, 1998 and Revision 1 on May 26, 1998 (Reference 7). In Revision 1 of the SER for the USI A-46 Program, NRC describes that outliers associated with the KPS USI A-46 Summary Report have been resolved.

The KPS configuration management program has maintained the equipment modifications and programmatic changes implemented to eliminate or reduce the seismic vulnerabilities identified during the IPEEE program.

7.0 Peer Review Summary

The Peer Review Team function and required activities are delineated in EPRI 1025286, Section 6, *Peer Review*. The Peer Review Team provided an overview of the following seismic walkdown activities, as defined in EPRI 1025286:

1. Selection of the SSCs included on the SWEL
2. Checklists prepared for the seismic walkdowns and area walk-bys
3. Licensing basis evaluations
4. Decisions for entering the potentially adverse seismic conditions into the CAP process
5. Submittal report

Peer review activities were performed during the preparation and performance of the seismic walkdowns. The Peer Review Team members were:

- Marc Hotchkiss, Dominion, Peer Review Team Lead
- Joseph McNamara, Dominion
- Leo Nadeau, Bechtel

A summary of the results of the Peer Review is provided below:

1. Selection of SSCs

The Peer Review Team performed a comprehensive review of the Seismic Walkdown Equipment List (SWEL). The SWEL was compared to the requirements of EPRI 1025286, Section 3, *Selection of SSC*, utilizing Appendix F, *Peer Review Checklist* and was found to appropriately apply the EPRI 1025286 guidance including:

- Selection of SWEL 1 SSCs
- Use of sample selection attributes
- Adequate representation of the five safety functions
- Consideration of risk insights
- Selection of spent fuel pool related items

All comments were minor and were adequately resolved.

2. Sample of Seismic Walkdown Checklist (SWC) and Area Walkdown Checklist (AWC)

The Peer Review Team reviewed a sample of walkdown results and concluded that the Seismic Walkdown Checklists (SWC) and Area Walk-By Checklists (AWC) were completed in accordance with the EPRI 1025286 guidance.

- a. Packages – The Peer Review Team reviewed the seismic walkdown packages for twenty-two SWCs prepared before walkdowns were performed. These walkdown packages were reviewed to ensure the walkdown checklist and related documentation (e.g., Screening Evaluation Work Sheet – SEWS, anchorage details) were included. The packages were determined to be adequate to support the walkdowns.

- b. SWC/AWC – There are 104 SWCs and 41 AWCs for a total of 145 checklists. Of the 145, twenty-five (25) SWCs and eleven (11) AWCs were peer reviewed representing 25% of the total. Overall, the SWC and AWC were determined to be appropriately detailed and complete.
- c. SWEs were interviewed by the Peer Review Team to verify that they understood and followed the guidance in EPRI 1025286, Section 4, *Seismic Walkdowns and Area Walk-Bys*. Results of the interviews indicated that each team understood and followed the EPRI 1025286 guidance.

All comments were minor and were adequately resolved.

3. Review of Licensing Basis Evaluations

All potentially adverse seismic conditions identified during the walkdowns were entered into the CAP consistent with plant procedure. There were no Licensing Basis Evaluations, as defined in EPRI 1025286, performed that were in addition to the corrective action process reviews.

4. Review of Conditions Entered into CAP

The threshold level at which field-identified conditions were entered in CAP was considered to be appropriate to ensure that potential licensing basis issues were documented and reviewed by Engineering and the Operations Shift Manager for operability concerns. Appropriate functional organizations (e.g., Operations, Maintenance, and Site Engineering) were routinely consulted and engaged in the evaluation of potentially adverse seismic conditions.

5. Review of Submittal Report

A review of the submittal report was performed by members of the Peer Review Team and it was determined that the objectives and requirements of the 50.54(f) Letter were met.

8.0 References

1. NRC Letter, *Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3 and 9.3 of the Near-Term Task Force Review of the Insights from the Fukushima Daiichi Accident*, dated March 12, 2012 (ML12056A046).
2. EPRI Report 1025286, Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic, June 2012.
3. NRC letter, *Endorsement of Electric Power Research Institute (EPRI) Draft Report 1025286, "Seismic Walkdown Guidance,"* dated May 31, 2012 (ML12145A529).
4. Kewaunee USAR, Revision 23.02, Updated 3/29/2012
5. Letter S/N NRC-95-120, C. R. Steinhardt, WPSC to NRC Document Control Desk, *Generic Letter 87-02, Summary Report for Resolution of USI A-46*, dated November 10, 1995.
6. Letter S/N NRC-94-079, C. R. Steinhardt, WPSC to NRC Document Control Desk, *Kewaunee Nuclear Power Plant Response to Generic Letter 88-20, Supplement 4, Individual Plant Examination of External Events*, dated June 28, 1994.
7. Letter, W. O. Long, NRC, to M. L. Marchi, WPSC, *Kewaunee Nuclear Power Plant – Safety Evaluation for USI A-46 Program Implementation, Revision 1*, dated May 26, 1998

Appendix A
Personnel Qualifications

Ellery BakerSummary of Background and Experience:

- Completed 5-day SQUG walkdown training course (2010)
- BS Civil Engineering, Virginia Polytechnic Institute and State University
- PE, Virginia
- Four years nuclear plant civil/structural/seismic engineering.

Tim CorbinSummary of Background and Experience:

- Completed 5-day SQUG walkdown training course (2001); qualified to perform seismic qualification of equipment using SQUG methodology (2005); and completed 2-day NTTF seismic walkdown training course (2012)
- BS Civil / Environmental Engineering, University of Wisconsin-Madison
- 14 years of experience in commercial nuclear power. Prepared, supported installation of, and closed out several modifications at Point Beach and Kewaunee Nuclear Power Plants. Prepared or revised multiple seismic-related calculations. Used SQUG methodology to qualify equipment.

Glenn A. GardnerSummary of Background and Experience:

- Completed 5-day SQUG walkdown training course (2001)
- BA Physics, graduate courses Mechanical Engineering
- PE, Massachusetts
- 19 years with architect/engineer and 17 years with nuclear utility. Piping design and analysis including seismic and water hammer analysis, piping and equipment support design and analysis, Engineering Mechanics lead engineer, equipment seismic flexibility reviews, seismic capability and seismic hazards risk reviews and walkdowns.

Marc HotchkissSummary of Background and Experience:

- Completed EPRI SWE training course (2012)
- BS Mechanical Engineering, Michigan Technological University
- PE, Virginia
- Twenty-nine years of commercial nuclear power plant experience including: plant and system engineering; plant modifications; project management; nuclear control room shift operations (SRO); shift technical advisor; and new plant licensing. Approximately three years nuclear plant seismic engineering-related experience.

Ronald LittleSummary of Background and Experience:

- Completed 5-day SQUG walkdown training course (1995) and qualified to perform seismic qualification of equipment using SQUG methodology (1995)
- BS Civil Engineering, Michigan Technological University
- Thirty-four years of experience in the commercial nuclear power industry. The first eight years at Sargent and Lundy Engineering working in structural design for the Braidwood, Watts Bar, and Palo Verde Nuclear Plants. The remainder has been in civil/mechanical design at Kewaunee Power Station. Prepared or reviewed many seismic-related calculations using the SQUG methodology.

David LohmanSummary of Background and Experience:

- PE, Wisconsin
- 32 years of experience in the commercial nuclear plant construction and operation. 28 years at Kewaunee Power Station in Operations (SRO), Project Management and Reactor Engineering.

Joseph W. McNamaraSummary of Background and Experience:

- Completed EPRI SWE training course (2012)
- BS Civil Engineering, Marquette University
- PE, Wisconsin and Illinois
- Over 33 years of experience in the commercial nuclear power industry. The first 8 years were involved in the construction and start-up phases of a number of plants. This was followed by nearly 25 years in primarily design engineering roles at operating nuclear plants. Participated in the seismic design and evaluation of numerous piping systems and safety-related equipment and structures.

Leo NadeauSummary of Background and Experience:

- Completed EPRI SWE training course (2012)
- BS Mechanical Engineering/MS Mechanical Engineering, University of Connecticut
- Over 25 years of experience in project management and engineering activities related to nuclear power plant projects including engineering and construction experience with refueling outages in operating facilities, performing new construction and the refurbishment of nuclear power plants. Fifteen years of seismic engineering experience.

Daniel J. Vasquez

Summary of Background and Experience:

- Completed 5-day SQUG training (2007)
- BS Aerospace Engineering, Virginia Polytechnic Institute and State University
- PE, Virginia
- Twelve years of nuclear seismic engineering experience in the Dominion Corporate Engineering group. SQUG Seismic Capacity Engineer qualification and EPRI-SQURTS (Seismic Qualification Reporting and Testing Standardization) chairman.

Tim Wattleworth

Summary of Background and Experience:

- Completed 5-day SQUG training (2010)
- BS Civil Engineering/MS Civil Engineering, University of Florida
- PE, Wisconsin and Florida
- Five years of experience at the Kewaunee Power Station in Rapid Response Design Engineering supporting numerous station project seismic reviews, scaffolds, temporary shielding, and design basis reviews. Performed SQUG walkdown reviews for seismic verification of new and existing equipment adequacy.

Appendix B.1

Base List 1

(modified USI A-46 Safe Shutdown Equipment List)

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
11267	INDICATOR-DSL GEN FUEL OIL DAY TANKS 1A1/1A2 DPI	1	18	E1377, E1622	ADM	597	OPEN	OP/CL	YES	S/R
11268	INDICATOR-DSL GEN FUEL OIL DAY TANKS 1B1/1B2 DPI	2	18	E1394, E1622	ADM	591	OPEN	OP/CL	YES	S/R
1-501BKR	CIRCUIT BREAKER-TERTIARY AUX TRANSFORMER	1	ROB	E240, E1035	ADM	586	CLOSED	OP/CL	NO	S/R
1-503BKR	CIRCUIT BREAKER-RESERVE AUX TRANSFORMER	1	ROB	E240, E1037	ADM	586	OPEN	OP/CL	YES	S/R
1-504BKR	CIRCUIT BREAKER-AUX FEEDWATER PUMP 1A	1	ROB	E240, E1038	ADM	586	OPEN	CLOSED	YES	S/R
1-505BKR	CIRCUIT BREAKER-STATION SERVICE TRANSF 1-51, 1-52	1	ROB	E240, E1039	ADM	586	CLOSED	CLOSED	YES	S/R
1-506BKR	CIRCUIT BREAKER-SERVICE WATER PUMP 1A1	1	ROB	E240, E1040	ADM	586	CLOSED	CLOSED	YES	S/R
1-507BKR	CIRCUIT BREAKER-SERVICE WATER PUMP 1A2	1	ROB	E240, E1041	ADM	586	CLOSED	CLOSED	YES	S/R
1-508BKR	CIRCUIT BREAKER-SAFETY INJECTION PUMP 1A	1	ROB	E240, E1042	ADM	586	OPEN	CLOSED	YES	S/R
1-509BKR	CIRCUIT BREAKER-DIESEL GEN 1A	1	ROB	E240, E1043	ADM	586	OPEN	CLOSED	YES	S/R
1-601BKR	CIRCUIT BREAKER-RESERVE AUX TRANSFORMER	2	ROB	E240, E1050	ADM	586	CLOSED	OP/CL	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
1-603BKR	CIRCUIT BREAKER-DIESEL GEN 1B	2	ROB	E240, E1052	ADM	586	OPEN	CLOSED	YES	S/R
1-604BKR	CIRCUIT BREAKER-AUX FEEDWATER PUMP 1B	2	ROB	E240, E1053	ADM	586	OPEN	CLOSED	YES	S/R
1-606BKR	CIRCUIT BREAKER-SAFETY INJECTION PUMP 1B	2	ROB	E240, E1055	ADM	586	OPEN	CLOSED	YES	S/R
1-607BKR	CIRCUIT BREAKER-STATION SERVICE TRANSF 1-61 1-62	2	ROB	E240, E1056	ADM	586	CLOSED	CLOSED	YES	S/R
1-608BKR	CIRCUIT BREAKER-SERVICE WATER PUMP 1B1	2	ROB	E240, E1057	ADM	586	CLOSED	CLOSED	YES	S/R
1-609BKR	CIRCUIT BREAKER-SERVICE WATER PUMP 1B2	2	ROB	E240, E1058	ADM	586	CLOSED	CLOSED	YES	S/R
101-027	ACCUMULATOR-SW TURB BLDG HDR 1A CV	1	7	E329	ADM	590	ON	ON	NO	S
101-028	ACCUMULATOR-SW TURB BLDG HDR 1B CV	2	7	E329	ADM	590	ON	ON	NO	S
101-029	ACCUMULATOR-MS HDR 1B CONTROLLED RELIEF CV SD3B ACCUMULATOR	2	7	E301	AUX	626	ON	ON	NO	S
101-030	ACCUMULATOR-MS HDR 1A CONTROLLED RELIEF CV SD3A ACCUMULATOR	1	7	E305	AUX	626	ON	ON	NO	S
101-031	ACCUMULATOR-SW TURB BLDG HDR 1A CV	1	7	E329	ADM	590	ON	ON	NO	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
101-032	ACCUMULATOR-SW TURB BLDG HDR 1B CV	2	7	E329	ADM	590	ON	ON	NO	S
101-033	ACCUMULATOR-PRZR TO PRZR RLF TANK CV PR2A ACCUM	1	7	M213-8	CONT	649	ON	ON	NO	S
101-034	ACCUMULATOR-PRZR TO PRZR RLF TANK CV PR2B ACCUM	2	7	M213-8	CONT	649	ON	ON	NO	S
132-051	FAN-BATTERY ROOM EXHAUST FAN 1A	1	9	E1353, M601	TURB	593	ON/OFF	ON	YES	S/R
132-052	FAN-BATTERY ROOM EXHAUST FAN 1B	2	9	E1410, M601	TURB	606	ON/OFF	ON	YES	S/R
132-081	FAN-DIESEL GENERATOR ROOM VENT SUPPLY FAN 1A	1	9	E1338, M601	ADM	586	ON/OFF	ON	YES	S/R
132-082	FAN-DIESEL GENERATOR ROOM VENT SUPPLY FAN 1B	2	9	E1394, M601	ADM	586	ON/OFF	ON	YES	S/R
132-131	FAN-CONTROL ROOM A/C FAN 1A	1	9	E1384, M603	AUX	642	ON/OFF	ON	YES	S/R
132-132	FAN-CONTROL ROOM A/C FAN 1B	2	9	E1440, M603	AUX	642	ON/OFF	ON	YES	S/R
132-181	FAN-SCREENHOUSE EXHAUST FAN 1A	1	9	E1362, M601	SH	586	ON/OFF	ON	YES	S/R
132-291	FAN-CONTROL RM POST ACCID RECIRC FAN 1A	1	9	E1386, M603	AUX	642	OFF	ON/OFF	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
132-292	FAN-CONTROL RM POST ACCID RECIRC FAN 1B	2	9	E1442, M603	AUX	642	OFF	ON/OFF	YES	S/R
134-031	GENERATOR-DIESEL GENERATOR 1A	1	17	E240, M213	ADM	586	OFF	ON	YES	S/R
134-032	GENERATOR-DIESEL GENERATOR 1B	2	17	E240, M213	ADM	586	OFF	ON	YES	S/R
135-021	HEAT EXCHANGER-SEAL WATER HEAT EXCHANGER	-	21	M350	AUX	606	ON	ON	NO	S
135-031	HEAT EXCHANGER-REGENERATIVE HEAT EXCHANGER	-	21	XK-100-35, XK-100-36	CONT	592	ON	OFF	NO	S
135-081	HEAT EXCHANGER-COMPONENT COOLING HX 1A	1	21	XK-100-19	AUX	608	ON	ON	NO	S
135-082	HEAT EXCHANGER-COMPONENT COOLING HX 1B	2	21	XK-100-19	AUX	608	ON	ON	NO	S
145-031	PUMP-SAFETY INJECTION PUMP 1A	1	5	XK-100-20	AUX	586	OFF	ON	YES	S
145-032	PUMP-SAFETY INJECTION PUMP 1B	2	5	XK-100-20	AUX	586	OFF	ON	YES	S
145-101	PUMP-CHARGING PUMP 1A	1	5	E1379, XK-100-36	AUX	586	OFF	ON/OFF	YES	S/R
145-151	PUMP-COMPONENT COOLING PUMP 1A	1	5	XK-100-19	AUX	607	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
145-152	PUMP-COMPONENT COOLING PUMP 1B	2	5	XK-100-19	AUX	607	ON	ON	YES	S
145-411	PUMP-AUXILIARY FEEDWATER PUMP 1A	1	5	M205	TURB	588	OFF	ON	YES	S
145-412	PUMP-AUXILIARY FEEDWATER PUMP 1B	2	5	M205	TURB	588	OFF	ON	YES	S
145-441	PUMP-SERVICE WATER PUMP 1A1	1	6	M202	SH	586	ON	ON	YES	S
145-442	PUMP-SERVICE WATER PUMP 1A2	1	6	M202	SH	586	ON	ON	YES	S
145-443	PUMP-SERVICE WATER PUMP 1B1	2	6	M202	SH	586	ON	ON	YES	S
145-444	PUMP-SERVICE WATER PUMP 1B2	2	6	M202	SH	588	ON	ON	YES	S
145-471	PUMP-CONTROL ROOM A/C CHILLER PUMP 1A	1	5	E1385, M606	AUX	642	ON	ON	YES	S/R
145-472	PUMP-CONTROL ROOM A/C CHILLER PUMP 1B	2	5	E1441, M606	AUX	642	ON	ON	YES	S/R
145-541	PUMP-DIESEL GEN FUEL OIL TRANSFER PUMP 1A	1	6	E1337, M220	ADM	586	OFF	ON/OFF	YES	S/R
145-542	PUMP-DIESEL GEN FUEL OIL TRANSFER PUMP 1B	2	6	E1394, M220	ADM	586	OFF	ON/OFF	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
145-661	PUMP-AUX FEEDWATER PUMP 1A AUX LUBE OIL PUMP	1	ROB	E1354, M205	TURB	586	OFF	ON/OFF	YES	S/R
145-662	PUMP-AUX FEEDWATER PUMP 1B AUX LUBE OIL PUMP	2	ROB	E1407, M205	TURB	586	OFF	ON/OFF	YES	S/R
146-441	COMPRESSOR-DIESEL GENERATOR START-UP AIR 1A	1	12	E1336, XK-143-39	TURB	586	ON/OFF	ON/OFF	YES	S/R
146-442	COMPRESSOR-DIESEL GENERATOR START-UP AIR 1B	2	12	E1392, XK-143-39	TURB	586	ON/OFF	ON/OFF	YES	S/R
15051	RTD-REACTOR COOLANT PUMP 1A NO. 1 SL DISCHARGE RTD	1	19	E2026, XK-100-35	CONT	623	ON	ON	YES	S
15053	RTD-REACTOR COOLANT PUMP 1B NO. 1 SL DISCHARGE RTD	2	19	E2026, XK-100-35	CONT	635	ON	ON	YES	S
15101BKR	CIRCUIT BREAKER-MAIN BREAKER BUS 1-51	1	ROB	E240, E1810	TURB	586	CLOSED	OP/CL	YES	S/R
15104BKR	CIRCUIT BREAKER-CONTAINMENT FAN COIL UNIT 1B	1	ROB	E240, E3115	TURB	586	CLOSED	CLOSED	YES	S/R
15105BKR	CIRCUIT BREAKER-CONTAINMENT FAN COIL UNIT 1A	1	ROB	E240, E3116	TURB	586	CLOSED	CLOSED	YES	S/R
15109BKR	CIRCUIT BREAKER-COMPONENT COOLING PUMP 1A	1	ROB	E240, E1082	TURB	586	CLOSED	CLOSED	YES	S/R
15111BKR	CIRCUIT BREAKER-BUS TIE 1-51 1-61	1	ROB	E240, E1083	TURB	586	OPEN	OP/CL	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
15123	RTD-REACTOR COOLANT LOOP A HOT LEG RTD	1	19	E340, E2037, XK-100-10	CONT	618	ON	ON	YES	S
15124	RTD-REACTOR COOLANT LOOP A COLD LEG RTD	1	19	E2037, XK-100-10	CONT	618	ON	ON	YES	S
15125	RTD-REACTOR COOLANT LOOP B HOT LEG RTD	2	19	E340, E2037, XK-100-10	CONT	618	ON	ON	YES	S
15126	RTD-REACTOR COOLANT LOOP B COLD LEG RTD	2	19	E2037, XK-100-10	CONT	618	ON	ON	YES	S
15131	RTD-REAC CLNT PMP 1A THERM BARRIER RTD	1	19	XK-100-20	CONT	612	ON	ON	YES	S
15132	RTD-REAC CLNT PMP 1B THERM BARRIER RTD	2	19	XK-100-20	CONT	611	ON	ON	YES	S
15201BKR	CIRCUIT BREAKER-MAIN BREAKER BUS 1-52	1	ROB	E240, E1084	TURB	586	CLOSED	OP/CL	YES	S/R
15204BKR	CIRCUIT BREAKER-MCC 1-52E	1	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S
15205BKR	CIRCUIT BREAKER-MCC 1-52F EXT VIA MCC 1-52F	1	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S
15206BKR	CIRCUIT BREAKER-MCC 1-52B MCC 1-52C	1	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S
15208BKR	CIRCUIT BREAKER-MCC 1-52A (MCC1-52D VIA MCC 1-52A)	1	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
15209BKR	CIRCUIT BREAKER-MCC 1-5262 NORMAL SUPPLY	1	ROB	E240, E1092	TURB	586	CLOSED	CLOSED	YES	S/R
15211BKR	CIRCUIT BREAKER-BUS TIE 1-52 & 1-62	1	ROB	E240, E1086	TURB	586	OPEN	OP/CL	YES	S/R
15212BKR	CIRCUIT BREAKER-PRESS HTR TRANSF (MCC1-3352 ALT)	1	ROB	E240, E1085	TURB	586	CLOSED	CLOSED	YES	S/R
153-011	TANK-PRESSURIZER RELIEF TANK	-	21	XK-100-10	CONT	595	N/A	N/A	NO	S
153-021	TANK-REFUELING WATER STORAGE TANK	-	21	XK-100-20	AUX	586	N/A	N/A	NO	S
153-061	TANK-VOLUME CONTROL TANK	-	21	XK-100-36	AUX	606	N/A	N/A	NO	S
153-351	TANK-DIESEL GENERATOR FUEL OIL DAY TANK 1A1	1	21	M220	ADM	586	N/A	N/A	NO	S
153-352	TANK-DIESEL GENERATOR FUEL OIL DAY TANK 1A2	1	21	M220	ADM	586	N/A	N/A	NO	S
153-353	TANK-DIESEL GENERATOR FUEL OIL DAY TANK 1B1	2	21	M220	TURB	586	N/A	N/A	NO	S
153-354	TANK-DIESEL GENERATOR FUEL OIL DAY TANK 1B2	2	21	M220	TURB	586	N/A	N/A	NO	S
153-361	TANK-DIESEL GENERATOR FUEL OIL STORAGE TANK 1A	1	21	M220	OEB	586	N/A	N/A	NO	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
153-362	TANK-DIESEL GENERATOR FUEL OIL STORAGE TANK 1B	2	21	M220	OEB	606	N/A	N/A	NO	S
153-401	TANK-COMPONENT COOLING SURGE TANK	-	21	XK-100-19	AUX	662	N/A	N/A	NO	S
153-944	TANK-CONTROL ROOM AC EXPANSION TANK B	2	21	M210	AUX	642	N/A	N/A	NO	S
153-945	TANK-CONTROL ROOM AC EXPANSION TANK A	1	21	M210	AUX	642	N/A	N/A	NO	S
155-011	FAN COIL UNIT-CONTAINMENT 1A	1	10	M602	CONT	637	ON/OFF	ON	YES	S
155-012	FAN COIL UNIT-CONTAINMENT 1B	1	10	M602	CONT	637	ON/OFF	ON	YES	S
155-013	FAN COIL UNIT-CONTAINMENT 1C	2	10	M602	CONT	617	ON/OFF	ON	YES	S
155-014	FAN COIL UNIT-CONTAINMENT 1D	2	10	M602	CONT	617	ON/OFF	ON	YES	S
15503	SWITCH-DGM 1A DG LOW CIRC OIL PRESS SW	1	ROB	E1587, E1621, E1622, E3329	ADM	586	OPEN	OPEN	NO	S/R
155-031	FAN COIL UNIT-TURBINE BUILDING 1A	1	10	E1378, M601	TURB	586	ON/OFF	ON	YES	S/R
155-032	FAN COIL UNIT-TURBINE BUILDING 1B	2	10	E1434, M601	TURB	586	ON/OFF	ON	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
15504	SWITCH-DGM 1A LOW TURBO OIL PRESS SW	1	ROB	E1587, E1621, E1622, E3329	ADM	586	OPEN	OPEN	NO	S/R
15505	SWITCH-DGM 1B DG LOW CIRC OIL PRESS SW	2	ROB	E1621, E1622	ADM	586	OPEN	OPEN	NO	S/R
15506	SWITCH-DGM 1B LOW TURBO OIL PRESS SW	2	ROB	E1589, E1621, E1622, E3329	ADM	586	OPEN	OPEN	NO	S/R
15502J	SWITCH-AFW PUMP A LOW DISCHARGE PS	1	18	E1602AU, E1038AH	TURB	586	OPEN	OP/CL	YES	S/R
15503J	SWITCH-AFW PUMP B LOW DISCHARGE PS	2	18	E1602AU, E1053AD	TURB	586	OPEN	OP/CL	YES	S/R
15505J	SWITCH-AFW PUMP B AUX LUBE OIL PUMP START CONTROL PS	2	18	E1602AU, E1407U	TURB	586	OPEN	OP/CL	YES	S/R
15506J	SWITCH-AFW PUMP B AUX LUBE OIL PUMP STOP CONTROL PS	2	18	E1602AU, E1407U	TURB	586	OPEN	OP/CL	YES	S/R
15507J	SWITCH-AFW PUMP A AUX LUBE OIL PUMP START CONTROL PS	1	18	E1602AU, E1354X	TURB	586	OPEN	OP/CL	YES	S/R
15508J	SWITCH-AFW PUMP A AUX LUBE OIL PUMP STOP CONTROL PS	1	18	E1602AU, E1354X	TURB	586	OPEN	OP/CL	YES	S/R
155-101	FAN COIL UNIT-AUXILIARY BLDG BSMT 1A	1	10	E1377, M606	AUX	586	ON/OFF	ON	YES	S/R
155-102	FAN COIL UNIT-AUXILIARY BLDG BSMT 1B	2	10	E1435, M606	AUX	586	ON/OFF	ON	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
155-111	FAN COIL UNIT-AUXILIARY BLDG MEZZ 1A	1	10	E1378, M606	AUX	606	ON/OFF	ON	YES	S/R
155-112	FAN COIL UNIT-AUXILIARY BLDG MEZZ 1B	2	10	E1434, M606	AUX	606	ON/OFF	ON	YES	S/R
155-211	FAN COIL UNIT-BATTERY ROOM 1A	1	10	E1355, M606	TURB	606	ON/OFF	ON	YES	S/R
155-212	FAN COIL UNIT-BATTERY ROOM 1B	2	10	E1410, M606	TURB	606	ON/OFF	ON	YES	S/R
155-273	FAN COIL UNIT-AUXILIARY FEEDWATER PUMP 1A	1	10	E3094, M606	TURB	586	ON/OFF	ON	YES	S/R
155-301	FAN COIL UNIT-AUX BLDG FAN FLR FCU 1A	1	10	E3395, M601	AUX	657	ON/OFF	ON	YES	S/R
155-302	FAN COIL UNIT-AUX BLDG FAN FLR FCU 1B	2	10	E3395, M601	AUX	657	ON/OFF	ON	YES	S/R
155-311	FAN COIL UNIT-AUX BLDG BSMT FAN COIL UNIT 1C	1	10	M588, XK-84769-1	AUX	586	ON/OFF	ON	YES	S/R
155-312	FAN COIL UNIT-AUX BLDG BSMT FAN COIL UNIT 1D	2	10	M588, XK-84769-1	AUX	586	ON/OFF	ON	YES	S/R
158-011	STRAINER-SERVICE WATER STRAINER 1A1	1	21	E1360, M202	SH	586	ON/OFF	ON/OFF	YES	S/R
158-012	STRAINER-SERVICE WATER STRAINER 1A2	1	21	E1360, M202	SH	586	ON/OFF	ON/OFF	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
158-013	STRAINER-SERVICE WATER STRAINER 1B1	2	21	E1413, M202	SH	586	ON/OFF	ON/OFF	YES	S/R
158-014	STRAINER-SERVICE WATER STRAINER 1B2	2	21	E1413, M202	SH	586	ON/OFF	ON/OFF	YES	S/R
16000	SWITCH-DGM 1A AIR STARTER SW NO. 1 PRESS SWITCH	1	ROB	E1586, E1621	ADM	586	CLOSED	OPEN	NO	S/R
16015	SWITCH-AUX FW PMP 1A LUBE OIL PERMISSIVE PS	1	18	E1038, E1602	TURB	591	OPEN	CLOSED	YES	S/R
16018	SWITCH-AUX FW PMP 1B LUBE OIL PERMISSIVE PS	2	18	E1053, E1602	TURB	591	OPEN	CLOSED	YES	S/R
16020	SWITCH-DIESEL GEN 1A PRIMARY AIR START PS	1	ROB	E1622	TURB	587	OP/CL	OP/CL	NO	S/R
16021	SWITCH-DIESEL GEN 1A RESERVE AIR START PS	1	ROB	E1336, E1622	TURB	587	OP/CL	OP/CL	NO	S/R
16092	SWITCH-DIESEL GEN 1B PRIMARY AIR START PS	2	ROB	E1392, E1622	TURB	590	OP/CL	OP/CL	NO	S/R
16093	SWITCH-DIESEL GEN 1B RESERVE AIR START PS	2	ROB	E1392, E1622	TURB	590	OP/CL	OP/CL	NO	S/R
16101BKR	CIRCUIT BREAKER-MAIN BREAKER BUS 1-61	2	ROB	E240, E1087	TURB	586	CLOSED	OP/CL	YES	S/R
16104BKR	CIRCUIT BREAKER-CONTAINMENT FAN COIL UNIT 1D	2	ROB	E240, E1088	TURB	586	CLOSED	CLOSED	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
16105BKR	CIRCUIT BREAKER-CONTAINMENT FAN COIL UNIT 1C	2	ROB	E240, E1088	TURB	586	CLOSED	CLOSED	YES	S/R
16109BKR	CIRCUIT BREAKER-COMPONENT COOLING PUMP 1B	2	ROB	E240, E1089	TURB	586	CLOSED	CLOSED	YES	S/R
16111BKR	CIRCUIT BREAKER-BUS TIE 1-61 1-51	2	ROB	E240, E1090	TURB	586	OPEN	OP/CL	YES	S/R
16112	SWITCH-MN STM HDR 1A CONTROLLED RELIEF PS	1	18	E305, E1627, E1903, M203	AUX	622	OPEN	OPEN	YES	S/R
16113	SWITCH-MN STM HDR 1B CONTROLLED RELIEF PS	2	18	E1627, M203	AUX	621	OPEN	OPEN	YES	S/R
162-131	COMPRESSOR-CONT RM A/C COMPR 1A & CRANKCASE HT	1	12	E1385, M606	AUX	642	ON	ON	YES	S/R
162-132	COMPRESSOR-CONT RM A/C COMPR 1B & CRANKCASE HT	2	12	E1441, M606	AUX	642	ON	ON	YES	S/R
16201BKR	CIRCUIT BREAKER-MAIN BREAKER BUS 1-62	2	ROB	E240, E1091	TURB	586	CLOSED	OP/CL	YES	S/R
16204BKR	CIRCUIT BREAKER-MCC 1-62E (MCC 1-62H VIA MCC 1-62E)	2	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S
16206BKR	CIRCUIT BREAKER-MCC62B/62C (MCC62B EXT VIA MCC 62C)	2	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S
16208BKR	CIRCUIT BREAKER-MCC 1-62A (MCC 1-62D VIA MCC 1-62A)	2	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
16209BKR	CIRCUIT BREAKER-MCC 1-5262 BACKUP SUPPLY	2	ROB	E240, E1092	TURB	586	OPEN	OP/CL	YES	S/R
16210BKR	CIRCUIT BREAKER-PRESS HTR TRANSF 1-63 (MCC 1-62G)	2	ROB	E240, E1065	TURB	586	OP/CL	OP/CL	YES	S/R
16211BKR	CIRCUIT BREAKER-BUS TIE 1-62 1-52	2	ROB	E240, E1093	TURB	586	OPEN	OP/CL	YES	S/R
16212BKR	CIRCUIT BREAKER-MCC 1-62J	2	ROB	E240	TURB	586	CLOSED	CLOSED	YES	S
16233	SWITCH-BATTERY RM FAN COIL UNIT 1A DISCH AIR TS	1	18	E1923, E2016, M606	TURB	610	OP/CL	OPEN	YES	S/R
16234	SWITCH-BATTERY RM FCU 1B DISCH AIR TS	2	18	E1923, E2016, M606	TURB	610	OP/CL	OPEN	YES	S/R
16395	SWITCH-SCRNHSE 1A AREA TS	1	18	E1606, E2488	SCRN	590	OP/CL	OP/CL	NO	S/R
16397	SWITCH-SCRNHSE TRAIN A CONTROL HIGH TS	1	18	E1362, E1606	SCRN	590	OP/CL	OP/CL	NO	S/R
16555	SWITCH-AUX BLDG FAN FLOOR FAN COIL UNIT 1A TS	1	ROB	E3395, M588	AUX	662	OP/CL	OPEN	YES	S/R
16556	SWITCH-AUX BLDG FAN FLOOR FAN COIL UNIT 1B TS	2	ROB	E3394, M588	AUX	662	OP/CL	OPEN	YES	S/R
16557	SWITCH-AUX BLDG BSMT FAN COIL UNIT 1C TS	1	ROB	E3396, M588	AUX	590	OP/CL	OPEN	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
16558	SWITCH-AUX BLDG BSMT FAN COIL UNIT 1D TS	2	ROB	E3396, M588	AUX	590	OP/CL	OPEN	YES	S/R
16572	SWITCH-D/G ROOM 1A DMPR CONTROL TS	1	18	E3610, E1606	ADM	590	OP/CL	OP/CL	NO	S/R
16573	SWITCH-D/G ROOM 1B DMPR CONTROL TS	2	18	E1606, E3610	ADM	590	OP/CL	OP/CL	NO	S/R
16833	SWITCH-DGM 1A AIR STARTER SW NO. 2 PRESS SWITCH	1	ROB	E1586, E1621	ADM	586	CLOSED	OPEN	NO	S/R
16839	SWITCH-DGM 1B LUBE OIL PRESS SHUTDOWN SWITCH	2	ROB	E1588, E1621	ADM	586	CLOSED	OPEN	NO	S/R
16841	SWITCH-DGM 1B AIR STARTER SW NO. 1 PRESS SWITCH	2	ROB	E1588, E1621	ADM	586	CLOSED	OPEN	NO	S/R
16842	SWITCH-DGM 1B AIR STARTER SW NO. 2 PRESS SWITCH	2	ROB	E1588, E1621	ADM	586	CLOSED	OPEN	NO	S/R
16935	SWITCH-AFW PMP 1A LUBE OIL PERM PS	1	18	E1038, E1602	TURB	591	OPEN	CLOSED	YES	S/R
16936	SWITCH-AFW PMP 1B LUBE OIL PERM PS	2	18	E1053, E1602	TURB	591	OPEN	CLOSED	YES	S/R
18901	PANEL-BLOWDOWN TREATMT 16 POINT ANNUNCIATOR PANEL	-	20		AUX	586	ENERGZD	ENERGZD	YES	S
21005	TRANSMITTER-SERVICE WATER HDR 1A P XMTR	1	18	E830, E1630, E2395, E3326	SH	591	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
21006	TRANSMITTER-SERVICE WATER HDR 1B P XMTR	2	18	E830, E1630, E2395	TURB	591	ON	ON	YES	S
21023	TRANSMITTER-AUX FW PMP 1A DISCH P XMTR	1	18	E830, E1602, E2374, M205	TURB	591	ON	ON	YES	S
21024	TRANSMITTER-AUX FW PMP 1B DISCH P XMTR	2	18	E830, E1602, E2375, M205	TURB	591	ON	ON	YES	S
21038	TRANSMITTER-REAC CLNT HOT LEG P XMTR	-	18	E2036, E3722, XK-100-10	CONT	610	ON	ON	YES	S
21076	TRANSMITTER-VOL CONT TANK RLF LINE P XMTR (PT-139)	-	18	E2027, XK-100-36	AUX	611	ON	ON	YES	S
21077	TRANSMITTER-REAC CLNT SYS HOT LEG P XMTR	-	18	E2036, E3721, XK-100-10	CONT	611	ON	ON	YES	S
21079	TRANSMITTER-PRZR PRESSURE XMTR 1C	-	18	E676, E2038, E2532, E2533, XK-100-10	CONT	609	ON	ON	YES	S
21080	TRANSMITTER-PRZR PRESSURE XMTR 1B	2	18	E2038, E2534, XK-100-10	CONT	609	ON	ON	YES	S
21081	TRANSMITTER-PRZR PRESSURE XMTR 1A	1	18	E2038, E2535, XK-100-10	CONT	609	ON	ON	YES	S
21083	TRANSMITTER-PRESS. RELIEF TANK P XMTR	-	18	E2040, E2564, XK-100-10	CONT	597	ON	ON	YES	S
21090	TRANSMITTER-SFTY INJ PMP 1A DSCH P XMTR (PT-922)	1	18	E700, E829, XK-100-29	AUX	590	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
21091	TRANSMITTER-SFTY INJ PMP 1B DSCH P XMTR (PT-923)	2	18	E701, E829, XK-100-29	AUX	590	ON	ON	YES	S
21094	TRANSMITTER-STM GEN 1A STM OUTL P XMTR (PT-468)	1	18	E673, E828, E1627, E2823	AUX	623	ON	ON	YES	S
21095	TRANSMITTER-STM GEN 1A STM OUTL P XMTR (PT-469)	1	18	E675, E828, E1626, E2824	AUX	623	ON	ON	YES	S
21096	TRANSMITTER-STM GEN 1A STM OUTL P XMTR (PT-482)	1	18	E675, E838, E2835, M203	AUX	623	ON	ON	YES	S
21097	TRANSMITTER-STM GEN 1B STM OUTL P XMTR (PT-478)	2	18	E677, E838, E1627, E2831, M203	AUX	621	ON	ON	YES	S
21098	TRANSMITTER-STM GEN 1B OUTL P XMTR (PT-479)	2	18	E679, E838, E1626, E2832, M203	AUX	621	ON	ON	YES	S
21099	TRANSMITTER-STM GEN 1B OUTL P XMTR (PT-483)	2	18	E673, E838, E2836, M203	AUX	621	ON	ON	YES	S
21144	TRANSMITTER-COMPONENT COOLING PUMPS DISCH PRESS XMTR	-	18	E830, E844, E2055, XK-100-19	AUX	610	ON	ON	YES	S
23010	XMITTER-AUX FW TO STM GEN 1A F XMTR	1	18	E831, E1602, E2377, M205	AUX	591	ON	ON	YES	S
23012	XMITTER-AUX FW TO STM GEN 1B F XMTR	2	18	E831, E1602, E2378, M205	AUX	591	ON	ON	YES	S
23015	TRANSMITTER-REAC CLNT PMP 1A SL WTR LO RANGE F XMTR	1	18	E829, E2027, XK-100-35	CONT	631	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
23016	TRANSMITTER-REAC COOLANT PMP 1A SL WTR HI-RANGE F XMTR	1	18	E829, E2027, XK-100-35	CONT	635	ON	ON	YES	S
23017	TRANSMITTER-REAC CLNT PMP 1B SL WTR LO-RANGE F XMTR	2	18	E829, E2027, XK-100-35	CONT	630	ON	ON	YES	S
23018	TRANSMITTER-REAC CLNT PMP 1B SL WTR HI-RANGE F XMTR	2	18	E829, E2027, XK-100-35	CONT	628	ON	ON	YES	S
23054	TRANSMITTER-SFTY INJ PUMP 1A DSCH F XMTR	1	18	E2033, E3750, XK-100-29	AUX	590	ON	ON	YES	S
23111	TRANSMITTER-RXCP A NO. 1 SEAL INJ FLOW XMTR	1	18	E2027, E2572, XK-100-35	AUX	616	ON	ON	YES	S
23112	TRANSMITTER-RXCP B NO. 1 SEAL INJ FLOW XMTR	2	18	E2027, E2572, XK-100-35	AUX	616	ON	ON	YES	S
24013	TRANSMITTER-STM GEN 1A LVL IND XMTR	1	18	E1626, E3751, M203	CONT	611	ON	ON	YES	S
24014	TRANSMITTER-STM GEN 1B LVL IND XMTR	2	18	E1626, E3752, M203	CONT	611	ON	ON	YES	S
24015	TRANSMITTER-VOL CONT TNK LVL XMTR	-	18	E2023, E2574, XK-100-36	AUX	616	ON	ON	YES	S
24016	TRANSMITTER-VOL CONT TNK LVL XMTR	-	18	E704, E2023, E2564, XK-100-36	AUX	611	ON	ON	YES	S
24030	TRANSMITTER-PRZ LEVEL XMTR 1C (LT-428)	-	18	E2039, E2537, XK-100-10	CONT	611	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
24031	TRANSMITTER-PRZ LEVEL XMTR 1B (LT-427)	-	18	E2039, E2539, XK-100-10	CONT	611	ON	ON	YES	S
24032	TRANSMITTER-PRZ LEVEL XMTR 1A (LT-426)	-	18	E2039, E2540, XK-100-10	CONT	611	ON	ON	YES	S
24033	TRANSMITTER-PRZ RELIEF TANK LEVEL XMTR (LT-442)	-	18	E2040, E2558, XK-100-10	CONT	598	ON	ON	YES	S
24040	TRANSMITTER-RWST LEVEL XMTR (LT-920)	-	18	E2035, E3749, XK-100-29	AUX	591	ON	ON	YES	S
24041	TRANSMITTER-COMPONENT COOLING SURGE TANK L XMTR (LT-618)	-	18	E942, E1771, E2055, E2111, E2359, E3654	AUX	658	ON	ON	YES	S
24042	TRANSMITTER-STM GEN 1A L XMTR (LT-461)	1	18	E673, E838, E788, E2006, M203	CONT	611	ON	ON	YES	S
24043	TRANSMITTER-STM GEN 1A L XMTR (LT-462)	1	18	E677, E787, E828, M203	CONT	609	ON	ON	YES	S
24044	TRANSMITTER-STM GEN 1A L XMTR (LT-463)	1	18	E679, E789, E828, M203	CONT	609	ON	ON	YES	S
24046	TRANSMITTER-STM GEN 1B L XMTR (LT-471)	2	18	E679, E789, E828, E2006	CONT	608	ON	ON	YES	S
24047	TRANSMITTER-STM GEN 1B L XMTR (LT-472)	2	18	E673, E788, E828, M203	CONT	608	ON	ON	YES	S
24048	TRANSMITTER-STM GEN 1B L XMTR (LT-473)	2	18	E675, E786, E828, M203	CONT	609	ON	ON	YES	S

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
24062	TRANSMITTER-RWST LEVEL XMTR (LT-921)	-	18	E2035, E3023, E3749, XK-100-29	AUX	590	ON	ON	YES	S
24083	TRANSMITTER-SG 1A LVL IND XMTR	1	18	E3751, M203	CONT	611	ON	ON	YES	S
24084	TRANSMITTER-SG 1B LVL IND XMTR	2	18	E3752, M203	CONT	611	ON	ON	YES	S
26018	CONTROLLER-COMP CLG PUMPS 1A/1B DSCH FC	-	18	E548, E3106, XK-100-19	AUX	611	ON	ON	YES	S
26309	CONTROLLER-SW TO CCW HEAT EXCH BYPASS CONTROL	1	18	E1632	AUX	611	ENERGZD	ENERGZD	YES	S/R
26310	CONTROLLER-SW TO CCW HEAT EXCH BYPASS CONTROL	2	18	E1632	AUX	611	ENERGZD	ENERGZD	YES	S/R
26330	CONTROLLER-CONTROL RM A/C UNIT 1A COOLING WTR TC	1	18	E1900, E2004, M603	AUX	654	ON/OFF	ON/OFF	YES	S/R
26331	CONTROLLER-CONTROL RM A/C UNIT 1B COOLING WTR TC	2	18	E1900, E2004, M603	AUX	654	ON/OFF	ON/OFF	YES	S/R
26620	CONTROLLER-REAC CLNT PMP 1A CLG WTR RTRN FC	1	18	E1523, E2045, XK-100-20	AUX	590	ENERGZD	ENERGZD	YES	S/R
26621	CONTROLLER-REAC CLNT PMP 1B CLG WTR RTRN FC	2	18	E1524, E2045, XK-100-20	AUX	590	ENERGZD	ENERGZD	YES	S/R
28008	SWITCH-DGM 1A ENG OVRSPD LIMIT SW	1	ROB	E1586, E1621	ADM	586	OPEN	OPEN	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
28009	CONTROLLER-DGM 1A SPEED REG GOV	1	ROB	E1586, E1621	ADM	586	CLOSED	OPEN	NO	S/R
28019	SWITCH-DGM 1B ENG OVRSPD LIMIT SW	2	ROB	E1588, E1621	ADM	586	OPEN	OPEN	NO	S/R
28020	CONTROLLER-DGM 1B SPEED REG GOV	2	ROB	E1588, E1621	ADM	586	CLOSED	OPEN	NO	S/R
28038	DETECTOR-NEUTRON FLUX MONITORING DETECTOR ASSY, CHANNEL 2	-	0	E804, E2051, E3754	CONT	607	ON	ON	YES	S
28044	DETECTOR-NEUTRON FLUX MONITORING DETECTOR ASSY, CHANNEL 1	-	0	E804, E2051, E3754	CONT	607	ON	ON	YES	S
28265	SWITCH-D/G 1A SPEED SENSITIVE SWITCH	1	ROB	E1586, E1621	ADM	586	OPEN	CLOSED	YES	S/R
28266	SWITCH-D/G 1B SPEED SENSITIVE SWITCH	2	ROB	E1588, E1621	ADM	586	OPEN	CLOSED	YES	S/R
31015/MS1A	VALVE-CHECK-MS ISOLATION VALVE ASSEMBLY-GEN 1A	1	7	E1627, M203	AUX	622	OPEN	CLOSED	YES	S
31016/MS1B	VALVE-CHECK-MS ISOLATION VALVE ASSEMBLY-GEN 1B	2	7	E1627, M203	AUX	620	OPEN	CLOSED	YES	S
31038/SW3A	VALVE-CONTROL-SERVICE WATER HEADER ISOLATION	1	7	E1630, M202	SH	580	OPEN	CLOSED	NO	S
31040/SW3B	VALVE-CONTROL-SERVICE WATER HEADER ISOLATION	2	7	E1630, M202	SH	583	OPEN	CLOSED	NO	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
31084/SW4A	VALVE-CONTROL-SERVICE WATER TO TURBINE BUILDING	1	7	E1633, M202	TURB	593	OP/CL	OP/CL	YES	S
31085/SW4B	VALVE-CONTROL-SERVICE WATER TO TURBINE BUILDING	2	7	E1633, M202	ADM	596	OP/CL	OP/CL	YES	S
31088/SW301A	VALVE-CONTROL-SW FROM DIESEL GEN. OIL COOLER	1	7	E1633, M202	ADM	593	CLOSED	OPEN	NO	S
31089/SW301B	VALVE-CONTROL-SW FROM DIESEL GEN. OIL COOLER	2	7	E1633, M202	ADM	593	CLOSED	OPEN	NO	S
31104/LD3	VALVE-CONTROL-COLD LEG LOOP B TO LETDOWN LINE (LCV-428)	-	7	E1514, E2039, E3125, XK-100-10	CONT	599	OPEN	CLOSED	NO	S
31108/LD2	VALVE-CONTROL-COLD LEG LOOP B TO LETDOWN LINE (LCV-427)	-	7	E1517, E2039, E3125, XK-100-10	CONT	599	OPEN	CLOSED	NO	S
31109/PR2B	VALVE-CONTROL-PRESS. TO PRESS. RELIEF TANK	2	7	E1523, E2038, XK-100-10	CONT	659	CLOSED	VARIES	YES	S
31110/PR2A	VALVE-CONTROL-PRESS. TO PRESS. RELIEF TANK	1	7	E1524, E2038, XK-100-10	CONT	660	CLOSED	VARIES	YES	S
31111/PS1B	VALVE-CONTROL-COLD LEG LOOP B TO PRESSURIZER	2	7	E2038, XK-100-10	CONT	635	OP/CL	CLOSED	YES	S
31112/PS1A	VALVE-CONTROL-COLD LEG LOOP A TO PRESSURIZER	1	7	E2038, XK-100-10	CONT	611	OP/CL	CLOSED	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
31127/CC610A	VALVE-CONTROL-CC610A/CV31127 RXCP A THERMAL BARRIER CC RETURN	1	7	E1523, E2045, XK-100-20	CONT	611	OPEN	OPEN	NO	S
31128/CC610B	VALVE-CONTROL-CC610B/CV31128 RXCP B THERMAL BARRIER CC RETURN	2	7	E1524, E2045, XK-100-20	CONT	609	OPEN	OPEN	NO	S
31129/SW1041A	ACTUATOR-SW1041A/CV31129 CR A/C CDSR A SW RTRN	1	7	E2004, M606	AUX	644	OP/CL	OPEN	NO	S
31130/SW1041B	ACTUATOR-SW1041B/CV31130 CR A/C CDSR B SW RTRN	2	7	E2004, M606	AUX	644	OP/CL	OPEN	NO	S
31170/SD3A	VALVE-CONTROL-MAIN STM CONTROLLED RELIEF VALVE STM HDR 1A	1	7	E1627, E1903, M203	AUX	626	CLOSED	VARIES	YES	S
31170POS/31170	POSITIONER FOR 31170/SD3A	1	ROB	E1627, E1903, M203	AUX	622	CLOSED	VARIES	YES	S
31174/SD3B	VALVE-CONTROL-MAIN STM CONTROLLED RELIEF VALVE STM HDR 1B	2	7	E1627, E1903, M203	AUX	626	CLOSED	VARIES	YES	S
31174POS/31174	POSITIONER FOR 31174/SD3B	2	ROB	E1627, E1903, M203	AUX	628	CLOSED	VARIES	YES	S
31229/CVC11	VALVE-CONTROL-REGENERATIVE HEAT EXCHANGER CHARGING LINE	-	7	E1517, E2025, E3125, XK-100-35	CONT	598	OP/CL	CLOSED	NO	S
31230/CVC15	VALVE-CONTROL-REGENERATIVE HEAT EXCHANGER AUX. SPRAY	-	7	E1519, E2025, E3127, XK-100-35	CONT	598	CLOSED	CLOSED	NO	S

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
31236/LD300	VALVE-CONTROL-EXCESS LETDOWN HEAT EXCHANGER 1A&1B	-	7	E1520, E2027, E2321 XK-100-35	CONT	597	CLOSED	CLOSED	NO	S
31237/CVC207A	VALVE-CONTROL-REACTOR COOLANT PMP 1A SEAL WATER OUTLET	1	7	E1521, E2036, E3127, XK-100-35	CONT	631	OPEN	OPEN	NO	S
31238/CVC207B	VALVE-CONTROL-REACTOR COOLANT PMP 1B SEAL WATER OUTLET	2	7	E1521, E3127, E2036, XK-100-35	CONT	631	OPEN	OPEN	NO	S
31315/AFW2A	VALVE-CONTROL-AUX FEEDWATER PUMP 1A FLOW CONTROL VALVE	1	7	E1542, E1602, M205	TURB	594	OPEN	OPEN	NO	S
31316/AFW2B	VALVE-CONTROL-AUX FEEDWATER PUMP 1B FLOW CONTROL VALVE	2	7	E1542, E1602, M205	TURB	590	OPEN	OPEN	NO	S
31406/SW1306A	VALVE-CONTROL-TEMP CTRL SW CCHX 1A BYPASS	1	7	E1632, M202	AUX	608	THROTTLED	OPEN	NO	S/R
31407/SW1306B	VALVE-CONTROL-TEMP CTRL SW CCHX 1B BYPASS	2	7	E1632, M202	AUX	608	THROTTLED	OPEN	NO	S/R
31683/CVC212-1	VALVE-CONTROL-SEAL WTR RETURN BY-PASS BLOCK CV	-	7	E2115, E3000, XK-100-36	AUX	616	OPEN	OPEN	NO	S
31688/CVC200	VALVE-CONTROL-SEAL WTR INJECTION BYPASS BLOCK CV	-	7	E3000, E3031, M350	AUX	595	OPEN	OPEN	NO	S
31704/SW901A-1	VALVE-CONTROL-HEADER 1A SHROUD COOLING COIL A/B BYPASS	1	7	E3174, E3218, M547	CONT	612	THROTTLED	OPEN	NO	S
31705/SW901B-1	VALVE-CONTROL-HEADER 1B SHROUD COOLING COIL A/B BYPASS	1	7	E3174, E3218, M547	CONT	612	THROTTLED	OPEN	NO	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
31706/SW901C-1	VALVE-CONTROL-HEADER 1C SHROUD COOLING COIL C/D BYPASS	2	7	E3174, E3217, M547	CONT	598	THROTTLED	OPEN	NO	S
31707/SW901D-1	VALVE-CONTROL-HEADER 1D SHROUD COOLING COIL C/D BYPASS	2	7	E3174, E3217, M547	CONT	598	THROTTLED	OPEN	NO	S
31744/SW1016A	VALVE-CONTROL-SW1016A/CV31744 AUX BLDG FAN FLOOR FCU A INLET	1	7	M488, E3305, E3307	AUX	660	OP/CL	OPEN	NO	S
31745/SW1016B	VALVE-CONTROL-SW1016B/CV31745 AUX BLDG FAN FLOOR FCU B INLET	2	7	M488, E3305, E3307	AUX	660	OP/CL	OPEN	NO	S
31746/SW1006C	VALVE-CONTROL-SW1006C/CV31746 AUX BLDG BSMT FCU C INLET	1	7	M488, E3306, E3307	AUX	688	OP/CL	OPEN	NO	S
31747/SW1006D	VALVE-CONTROL-SW1006D/CV31747 AUX BLDG BSMT FCU D INLET	2	7	M488, E3306, E3307	AUX	688	OP/CL	OPEN	NO	S
32007/MS2A	VALVE-MTR OPER-MS2A/MV32007 S/G A MSIV BYPASS VALVE	1	8	E1375, E1627, M203	AUX	624	CLOSED	CLOSED	YES	S/R
32008/MS2B	VALVE-MTR OPER-MS2B/MV32008 S/G B MSIV BYPASS VALVE	2	8	E1403, E1627, M203	AUX	624	CLOSED	CLOSED	YES	S/R
32009/SW1300A	VALVE-MTR OPER-COMPONENT COOLING HEAT EXCHANGER 1A OUTLET	1	8	E1349, E1632, M202-2	AUX	610	CLOSED	OPEN	YES	S/R
32010/SW1300B	VALVE-MTR OPER-COMPONENT COOLING HEAT EXCHANGER 1B OUTLET	2	8	E1430, E1632, M202-2	AUX	611	CLOSED	OPEN	YES	S/R
32011/SW10A	VALVE-MTR OPER-AUX BLDG SW HEADER A ISOLATION	1	8	E1632, E3097, M202-1	ADM	588	OPEN	OPEN	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
32012/SW10B	VALVE-MTR OPER-AUX BLDG SW HEADER B ISOLATION	2	8	E1391, E1632, M202-1	ADM	596	OPEN	OPEN	NO	S/R
32027/AFW10A	VALVE-MTR OPER-AUX FW PUMP 1A DISCH X-OVER MV	-	8	E1489, E1602, M205	TURB	595	OPEN	OPEN	NO	S/R
32028/AFW10B	VALVE-MTR OPER-AFW10B/MV32028 AFW TRAIN B X-OVER VALVE	-	8	E1489, E1602, M205	TURB	596	OPEN	OPEN	NO	S/R
32029/SW601A	VALVE-MTR OPER-AUX FEEDWATER PUMP 1A	1	8	E1353, E1632, M202-2	TURB	590	CLOSED	OPEN	YES	S/R
32030/SW601B	VALVE-MTR OPER-AUX FEEDWATER PUMP 1B	2	8	E1406, E1632, M202	TURB	590	CLOSED	OPEN	YES	S/R
32038/MS100A	VALVE-MTR OPER-MS100A/MV32038 S/G A STM SPLY TO TDAFW PUMP	1	8	E1629, M203	AUX	624	OPEN	CLOSED	YES	S/R
32039/MS100B	VALVE-MTR OPER-MS100B/MV32039 S/G B STM SPLY TO TDAFW PUMP	2	8	E1629, M203	AUX	622	OPEN	CLOSED	YES	S/R
32040/MS102	VALVE-MTR OPER-MS102/MV32040 TDAFW PUMP MAIN STM ISOL.	-	8	E1602, M203	TURB	587	CLOSED	CLOSED	NO	S/R
32056/CVC301	VALVE-MTR OPER-CVC301/MV32056 RWST SUPPLY TO CHARGING PUMPS	-	8	E3112, E2023, XK-100-36	AUX	590	CLOSED	OPEN	YES	S/R
32057/CVC1	VALVE-MTR OPER-CVC1/MV32057 VCT SUPPLY TO CHARGING PUMPS	-	8	E3113, E2023, XK-100-36	AUX	607	OPEN	CLOSED	YES	S/R
32058/SW903C	VALVE-CONTROL-CNTMT CLG SW RETURN HEADER 1C MV	2	8	E1426, E1632, M547	AUX	602	OPEN	OPEN	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
32059/SW903D	VALVE-CONTROL-CNTMT CLG SW RETURN HEADER 1D MV	2	8	E1426, E1632, M547	AUX	602	OPEN	OPEN	NO	S/R
32060/SW903A	VALVE-CONTROL-CNTMT CLG SW RETURN HEADER 1A MV	1	8	E1632, E3107, M547	AUX	607	OPEN	OPEN	NO	S/R
32061/SW903B	VALVE-CONTROL-CNTMT CLG SW RETURN HEADER 1B MV	2	8	E1632, E3096, M547	AUX	607	OP/CL	OPEN	YES	S/R
32077/BT2A	VALVE-MTR OPER-BT2A/MV32077 S/G A BLOWDOWN ISOL VALVE A1	1	8	E1629, E3098, M203	CONT	593	OPEN	CLOSED	YES	S/R
32078/BT3A	VALVE-MTR OPER-BT3A/MV32078 S/G A BLOWDOWN ISOL VALVE A2	1	8	E1487, E1629, M203	AUX	618	OPEN	CLOSED	YES	S/R
32079/BT2B	VALVE-MTR OPER-BT2B/MV32079 S/G B SLOWDOWN ISOL VALVE B1	2	8	E1443, E1629, M203	CONT	593	OPEN	CLOSED	YES	S/R
32080/BT3B	VALVE-MTR OPER-BT3B/MV32080 S/G B BLOWDOWN ISOL VALVE B2	2	8	E1487, E1629, M203	AUX	618	OPEN	CLOSED	YES	S/R
32084/CC601A	VALVE-MTR OPER-CC601A/MV32084 COMP COOLING TO RXCP A	1	8	E1350, E2045, XK-100-20	AUX	613	OPEN	OPEN	NO	S/R
32085/CC601B	VALVE-MTR OPER-CC601B/MV32085 COMP COOLING TO RXCP B	2	8	E1424, E2045, XK-100-20	AUX	613	OPEN	OPEN	NO	S/R
32086/CC612A	VALVE-MTR OPER-CC612A/MV32086 RXCP A COMP CLG RETURN ISOL	1	8	E1350, E2045, XK-100-20	AUX	613	OPEN	OPEN	NO	S/R
32087/CC612B	VALVE-MTR OPER-CC612B/MV32087 RXCP B CC RETURN ISOL	2	8	E1425, E2045, XK-100-20	AUX	613	OPEN	OPEN	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
32088/CC600	VALVE-MTR OPER-CC600/MV32088 CC TO RXCP5 AND EXCHS LD HX	-	8	E1346, E2045, XK-100-19	AUX	625	OPEN	OPEN	NO	S/R
32089/PR1A	VALVE-MTR OPER-PR1A/MV32089 PRESSURIZER PORV BLOCK VALVE	1	8	E1351, E2040, XK-100-10	CONT	658	OPEN	VARIES	YES	S/R
32090/PR1B	VALVE-MTR OPER-PR1B/MV32090 PRESSURIZER PORV BLOCK VALVE	2	8	E1398, E2040, XK-100-10	CONT	659	OPEN	VARIES	YES	S/R
32102/S1350A	VALVE-MTR OPER-S1350A/MV32102 CNTMT SUMP B SPLY TO RHR PMP A	1	8	E3168, XK-100-28	AUX	586	CLOSED	CLOSED	NO	S/R
32103/S1350B	VALVE-MTR OPER-S1350B/MV32103 CNTMT SUMP B SPLY TO RHR PMP B	2	8	E1425, XK-100-28	AUX	586	CLOSED	CLOSED	NO	S/R
32104/S12A	VALVE-MTR OPER-S12A/MV32104 BORIC ACID TANK OUTLET ISOLATION	1	8	E1370, E2033, XK-100-29	AUX	589	CLOSED	CLOSED	NO	S/R
32105/S12B	VALVE-MTR OPER-S12B/MV32105 BORIC ACID TANK OUTLET ISOLATION	2	8	E1423, E2033, XK-100-29	AUX	589	CLOSED	CLOSED	NO	S/R
32107/S15A	VALVE-MTR OPER-S15A/MV32107 SI PUMP A SUCTION ISOLATION	1	8	E1369, E2032, XK-100-29	AUX	585	OPEN	OPEN	NO	S/R
32108/S15B	VALVE-MTR OPER-S15B/MV32108 SI PUMP B SUCTION ISOLATION	2	8	E1422, E2032, XK-100-29	AUX	585	OPEN	OPEN	NO	S/R
32109/S14A	VALVE-MTR OPER-S14A/MV32109 RWST SUPPLY SI PUMPS	1	8	E1370, E2033, XK-100-29	AUX	588	OPEN	OPEN	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
32110/SI4B	VALVE-MTR OPER-SI4B/MV32110 RWST SUPPLY TO SI PUMPS	2	8	E1423, E2033, XK-100-29	AUX	588	OPEN	OPEN	NO	S/R
32113/SI351A	VALVE-MTR OPER-SI351A/MV32113 CNTMT SUMP B SPLY TO RHR PMP A	1	8	E1368, E2032, XK-100-28	AUX	586	CLOSED	CLOSED	NO	S/R
32114/SI351B	VALVE-SI351B/MV32114 CNTMT SUMP B SUPPLY TO RHR PUMP B	2	8	E1421, E2032, XK-100-28	AUX	591	CLOSED	CLOSED	NO	S/R
32115/CVC212	VALVE-MTR OPER-CVC212/MV32115 RXCP SEAL WTR RETURN ISOLATION	-	8	E3111, E2025, XK-100-35	AUX	616	OPEN	VARIES	YES	S/R
32116/RHR1A	VALVE-MTR OPER-RHR1A/MV32116 RCS LOOP A SUPPLY TO RHR PUMPS	1	8	E2036, E2990, E3108, E3109, E3118, XK-100-10	CONT	593	CLOSED	CLOSED	NO	S/R
32117/RHR2A	VALVE-MTR OPER-RHR2A/MV32117 RCS LOOP A SUPPLY TO RHR PUMPS	1	8	E2036, E2990, E3109, E3118, XK-100-18	CONT	594	CLOSED	CLOSED	NO	S/R
32118/RHR11	VALVE-MTR OPER-RHR11/MV32118 RHR DISCHARGE TO RCS LOOP B	-	8	E2036, XK-100-18	CONT	608	CLOSED	CLOSED	NO	S/R
32121/CC6A	VALVE-MTR OPER-CC6A/MV 32121 COMP COOLING HT EXCH A OUTLET	1	8	E2045, E3114, XK-100-19	AUX	613	OPEN	OPEN	NO	S/R
32122/CC6B	VALVE-MTR OPER-CC6B/MV 32122 COMP COOLING HT EXCH B OUTLET	2	8	E1404, E2045, XK-100-19	AUX	613	OPEN	OPEN	NO	S/R
32124/CVC211	VALVE-MTR OPER-CVC211/MV32124 RXCP SEAL WTR RETURN ISOLATION	-	8	E1526, E2025, XK-100-35	CONT	614	OPEN	VARIES	YES	S/R

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
32130/SI209	VALVE-MTR OPER-SI209/MV32130 SI RECIRCULATION TO RWST	-	8	E1371, E2032, XK-100-29	AUX	589	OPEN	OPEN	NO	S/R
32131/SI208	VALVE-MTR OPER-SI208/MV32131 SI RECIRCULATION TO RWST	-	8	E1424, E2032, XK-100-29	AUX	589	OPEN	OPEN	NO	S/R
32132/RHR1B	VALVE-MTR OPER-RHR1B/MV32132 RCS LOOP B SUPPLY TO RHR PUMPS	2	8	E1134, E1250, E2036, E2990, XK-100-18	CONT	594	CLOSED	CLOSED	NO	S/R
32133/RHR2B	VALVE-MTR OPER-RHR2B/MV32133 RCS LOOP B SUPPLY TO RHR PUMPS	2	8	E1134, E2036, E2990, XK-100-18	CONT	594	CLOSED	CLOSED	NO	S/R
32143/HS2203A	ACTUATOR-HS2203/MV32143 CR A/C UNIT A 3-WAY MIX	1	8	E1900, E2004, M606	AUX	648	OP/CL	OP/CL	YES	S/R
32144/HS20203B	ACTUATOR-HS2203B/MV32133 CR A/C UNIT B 3 WAY MIX	2	8	E1900, E2004, M606	AUX	648	OP/CL	OP/CL	YES	S/R
32367	ACTUATOR-ACC1A/MV32367 CR FRESH AIR INLET DAMPER A	1	10	E1919, E2003, M603	AUX	655	OPEN	CLOSED	YES	S/R
32368	ACTUATOR-ACC1B/MV32368 CR FRESH AIR INLET DMPR B	2	10	E1919, E2003, M603	AUX	652	OPEN	CLOSED	YES	S/R
32371	ACTUATOR-ACC3B/MD32371 CRPA RECIRC DAMPER B	2	10	E1913, E2003, M603	AUX	651	CLOSED	OPEN	YES	S/R
32374	ACTUATOR-ACC4/MD32374 CONTROL RM A/C NORMAL RECIRC DMPR	-	10	E1921, E2003, M603	AUX	652	OPEN	CLOSED	YES	S/R
32397	ACTUATOR-ACC3A/MD32397 CRPA RECIRC DAMPER A	1	10	E2003, E3260, M603	AUX	645	CLOSED	OPEN	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
32414	VALVE-BATTERY ROOM FCU A SUPPLY VALVE	1		M647Q	TURB	586	OPEN	OPEN	NO	S
32415	VALVE-BATTERY ROOM FCR B SUPPLY VALVE	2		M647Q	TURB	586	OPEN	OPEN	NO	S
33014/CC610A	ACTUATOR CC610A/CV31127 RXCP A THERMAL BARRIER CC RETURN	1	8	E1523, E2045, XK-100-20	CONT	612	DEENERGZD	DEENERGZD	NO	R
33015/CC610B	ACTUATOR-CC610B/CV31128 RXCP THERMAL BARRIER CC RETURN	2	8	E1524, E2045, XK-100-20	CONT	612	DEENERGZD	DEENERGZD	NO	R
33025/SD3A	ACTUATOR-MN STM HDR 1A CONTROLLED RELIEF SV	1	8	E1627, E1903, M213-2	AUX	626	DEENERGZD	ENERGZD/DEENERGZD	YES	S/R
33026/SD3B	ACTUATOR-MN STM HDR 1B CONTROLLED RELIEF SV	2	8	E1627, E1903, M213-2	AUX	648	DEENERGZD	ENERGZD/DEENERGZD	YES	S/R
33033/SW301A	ACTUATOR-DIESEL GEN 1A OIL CLR WTR OUTL SV	1	8	E1586, E1633, M202	ADM	593	ENERGZD	DEENERGZD	NO	S/R
33034/SW301B	ACTUATOR-DIESEL GEN 1B OIL CLR WTR OUTL SV	2	8	E1588, E1633, M202	ADM	593	ENERGZD	DEENERGZD	NO	S/R
33039/CVC15	ACTUATOR-CHARGING LINE AUX SPRAY TO PRZR STOP SV		ROB	E1519, E2025, XK-100-10	CONT	598	DEENERGZD	DEENERGZD	NO	R
33040/SW3A	ACTUATOR-SW PUMP HDR ISOL SV 1A	1	8	E1544, E1630, M202	SH	569	ENERGZD	DEENERGZD	NO	S/R
33041/SW3B	ACTUATOR-SW PUMP HDR ISOL SV 1B	2	8	E1511, E1630, M202	SH	590	ENERGZD	DEENERGZD	NO	S/R

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
33043/SW4A	ACTUATOR-SW TURB BLDG HDR 1A SV	1	8	E1509, E1633, M202	TURB	593	DEENERGZD	DEENERGZD	YES	S/R
33044/SW4B	ACTUATOR-SW TURB BLDG HDR 1B SV	2	8	E1509, E1630, M202	ADM	596	DEENERGZD	DEENERGZD	YES	S/R
33084/LD2	ACTUATOR-REAC CLNT COLD LEG LP B LTDN SV 1A	-	ROB	E1537, E2039, XK-100-10	CONT	592	ENERGZD	DEENERGZD	NO	S/R
33085/LD3	ACTUATOR-REAC CLNT COLD LEG LP B LTDN SV 1B	-	ROB	E1514, E2039	CONT	596	ENERGZD	DEENERGZD	NO	S/R
33094	ACTUATOR-ACC5/CD34007 NON-ACCID FRESH AIR DMPR, CLOSED	1	8	E1920, E2003, M603	AUX	651	ENERGZD	DEENERGZD	NO	S/R
33113/PR2B	ACTUATOR-PRZR PWR RLF PRESS SV 1B	2	8	E1523, E2038, XK-100-10	CONT	659	DEENERGZD	ENERGZD/DEENERGZD	YES	S/R
33114/PR2A	ACTUATOR-PRZR PWR RLF PRESS SV 1A	1	8	E1524, E2038, XK-100-10	CONT	656	DEENERGZD	ENERGZD/DEENERGZD	YES	S/R
33172/LD300	ACTUATOR-EXCESS LETDOWN HX INLET SV	-	8	E1520, E2321, E2027	CONT	599	DEENERGZD	DEENERGZD	NO	R
33177/MS1A	ACTUATOR-MN STM HDR 1A ISOL VLV AIR RELEASE SV 1A7	1	8	E1627, E1902, M203	AUX	622	DEENERGZD	ENERGZD	YES	S/R
33178/MS1B	ACTUATOR-MN STM HDR 1B ISOL VLV AIR RELEASE SV 1B7	2	8	E1627, E1902, M203	AUX	620	DEENERGZD	ENERGZD	YES	S/R
33181/MS1A	ACTUATOR-MN STM HDR 1A ISOL VLV AIR SPLY SV 1A1	1	8	E1627, E1901, M203	AUX	622	DEENERGZD	ENERGZD	YES	S/R

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
33182/MS1B	ACTUATOR-MN STM HDR 1B ISOL VLV AIR SPLY SV 1B1	2	8	E1627, E1901, M203	AUX	620	DEENERGZD	ENERGZD	YES	S/R
33183/MS1A	ACTUATOR-MN STM HDR 1A ISOL VLV AIR SPLY SV 1A2	1	8	E1627, E1902, M203	AUX	622	DEENERGZD	ENERGZD	YES	S/R
33184/MS1B	ACTUATOR-MN STM HDR 1B ISOL VLV AIR SPLY SV 1B2	2	8	E1627, E1902, M203	AUX	620	DEENERGZD	ENERGZD	YES	S/R
33185/MS1A	ACTUATOR-MN STM HDR 1A ISOL VLV AIR RELEASE SV 1A6	1	8	E1627, E1901, M203	AUX	622	DEENERGZD	ENERGZD	YES	S/R
33186/MS1B	ACTUATOR-MN STM HDR 1B ISOL VLV AIR RELEASE SV 1B6	2	8	E1627, E1901, M203	AUX	620	DEENERGZD	ENERGZD	YES	S/R
33194/CVC207A	ACTUATOR-REAC CLNT PMP 1A SEAL WATER ISOL SV	1	8	E1521, E2026, XK-100-35	CONT	629	DEENERGZD	DEENERGZD	NO	R
33195/CVC207B	ACTUATOR-REAC CLNT PMP 1B SEAL WATER ISOL SV	2	8	E1521, E2026, XK-100-35	CONT	629	DEENERGZD	DEENERGZD	NO	R
33273/CVC11	ACTUATOR-CHARGING LINE TO COLD LEG LOOP B STOP SV	-	8	E1517, E2025, XK-100-35	CONT	598	ENERGZD/ DEENERGZD	DEENERGZD	NO	S/R
33323/AFW2A	ACTUATOR-AFW PMP 1A DISCH CV SV	-	8	E1542, E1602, M205	TURB	594	DEENERGZD	DEENERGZD	NO	R
3336701	ACTUATOR-D/G RM 1A INLET DMPR SV1 A1 (SV TO TAV 60A)	1	8	E1606, E1923, M601	TURB	601	DEENERGZD	ENERGZD	YES	S/R
3336702	ACTUATOR-D/G RM 1A INLET DMPR SV1 A2 (SV TO TAV 61A)	1	8	E1606, E1923, M601	TURB	601	DEENERGZD	ENERGZD	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
3336801	ACTUATOR-D/G RM 1B INLET AND RECIRC DMPR SV 1B1	2	8	E1606, E1923, M601	ADM	590	ENERGZD/DEENERGZD	ENERGZD	YES	S/R
3336802	ACTUATOR-D/G RM 1B INLET AND RECIRC DMPR SV 1B2	2	8	E1606, E1923, M601	ADM	590	ENERGZD/DEENERGZD	ENERGZD	YES	S/R
3336901	ACTUATOR-D/G RM 1A OUTLET DMPR SV 1A1	1	8	E1606, E1923, M601	ADM	591	ENERGZD	ENERGZD	YES	S/R
3336902	ACTUATOR-D/G RM 1A OUTLET DMPR SV 1A1	1	8	E1606, E1923, M601	ADM	591	ENERGZD	ENERGZD	YES	S/R
3337001	ACTUATOR-D/G RM 1B OUTLET DAMPER SV 1B1	2	8	E1601, E1606, M601	ADM	596	DEENERGZD	ENERGZD	YES	S/R
3337002	ACTUATOR-D/G RM 1B OUTLET DAMPER SV 1B2	2	8	E1606, E1923, M601	ADM	596	DEENERGZD	ENERGZD	YES	S/R
33454	ACTUATOR-SCRNHOUSE EXH FAN 1A DISCH DMPR TRAIN A SV (TAV 63A)	1	8	E1606, E2488, M601	SH	586	ENERGZD	ENERGZD	YES	S/R
33455	ACTUATOR-SCRNHOUSE EXH FAN 1A DISCH DMPR TRAIN B SV (TAV 63A)	1	8	E1606, E2488, M601	SH	586	DEENERGZD	DEENERGZD	NO	S/R
33570	ACTUATOR-STARTUP AIR TO B D/G AIR START MOTORS	2	ROB	E1588, E1621	ADM	586	DEENERGZD	ENERGZD	YES	S/R
33571	ACTUATOR-STARTUP AIR TO B D/G AIR START MOTORS	2	ROB	E1588, E1621	ADM	586	DEENERGZD	ENERGZD	YES	S/R
33572	ACTUATOR-STARTUP AIR TO A D/G AIR START MOTORS	1	ROB	E1586, E1621	ADM	586	DEENERGZD	ENERGZD	YES	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
33573	ACTUATOR-STARTUP AIR TO A D/G AIR START MOTORS	1	ROB	E1586, E1621	ADM	586	DEENERGZD	ENERGZD	YES	S/R
33633/A FW111A	ACTUATOR-AUX FW PMP 1A OIL COOLER COOLING WTR INLET SV	1	8	E1602, E2757, M604	TURB	507	ENERGZD	DEENERGZD	NO	S/R
33633/A FW111B	ACTUATOR-AUX FW PMP 1B OIL COOLER COOLING WTR INLET SV	2	8	E1602, E2757, M604	TURB	507	ENERGZD	DEENERGZD	NO	S/R
33641	ACTUATOR-RELAY ROOM SPLY AND EXH DMPR SLND	-	8	E2004, E2762, M603	AUX	616	DEENERGZD	DEENERGZD	NO	R
33658/RC45A	ACTUATOR-REACTOR HEAD VENT TRAIN A SV	1	8	E2004, E2907, XK-100-10	CONT	652	CLOSED	CLOSED	NO	S/R
33659/RC45B	ACTUATOR-REACTOR HEAD VENT TRAIN B SV	2	8	E2041, E2908, XK-100-10	CONT	651	CLOSED	CLOSED	NO	S/R
33660/PR33A	ACTUATOR-PRZR HEAD VENT TRAIN A SV	1	8	E2041, E2907, XK-100-10	CONT	655	CLOSED	VARIES	YES	S/R
33661/PR33B	ACTUATOR-PRZR HEAD VENT TRAIN B SV	2	8	E2041, E2908, XK-100-10	CONT	655	CLOSED	VARIES	YES	S/R
33662/RC49	ACTUATOR-REACTOR HEAD VENT TO CNTMT SV	-	8	E2041, E2908, XK-100-10	CONT	658	CLOSED	CLOSED	NO	S/R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
33663/RC46	ACTUATOR-REACTOR HEAD VENT TO PRZR RELIEF TNK SV	-	8	E2041, E2907, XK-100-10	CONT	658	CLOSED	VARIES	YES	S/R
33716/CVC200	ACTUATOR-LTDN AND SEAL WTR BYPASS BLOCK 1A SV	-	8	E3000, E3030, XK-100-36	AUX	618	DEENERGZD	DEENERGZD	NO	R
33717/CVC200	ACTUATOR-LTDN AND SEAL WTR BYPASS BLOCK 1B SV	-	8	E3000, E3030, XK-100-36	AUX	618	DEENERGZD	DEENERGZD	NO	R
33731/PR2B	ACTUATOR-PRZR POWER RELIEF CV 1B SOL VLV	2	8	E2038, E3117, XK-100-10	CONT	659	DEENERGZD	ENERGZD/DEENERGZD	YES	S/R
33750/SW901A-1	ACTUATOR-HEADER 1A SHROUD CLG COIL A/B BYPASS SV	1	ROB	E3174, E3218, M547	CONT	612	ENERGZD	ENERGZD	YES	S/R
33751/SW901B-1	ACTUATOR-HEADER 1B SHROUD CLG COIL A/B BYPASS SV	1	ROB	E3174, E3218, M547	CONT	612	ENERGZD	ENERGZD	YES	S/R
33752/SW901C-1	ACTUATOR-HEADER 1C SHROUD CLG COIL C/D BYPASS SV	2	ROB	E3174, E3217, M547	CONT	598	ENERGZD	ENERGZD	YES	S/R
33753/SW901D-1	ACTUATOR-HEADER 1D SHROUD CLG COIL C/D BYPASS SV	2	ROB	E3174, E3217, M547	CONT	598	ENERGZD	ENERGZD	YES	S/R
33775/LD301	ACTUATOR- LD301/CV31090 EXCESS LETDOWN	-	8	XK-100-35, M213-8, E2027, E3095	CONT	596	DEENERGZD	DEENERGZD	NO	R
33784/CVC200	ACTUATOR-LTDN AND SEAL WTR BYPASS BLOCK SV	-	8	E3000, E3030, E3031, M350	AUX	619	DEENERGZD	ENERGZD	YES	R

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
33785/CC610A	ACTUATOR-CC610A/CV31127 RXCP A THERMAL BARR CC RETURN	1	8	E2045, E3117, XK-100-28	CONT	612	DEENERGZD	DEENERGZD	NO	R
33836/SW1016A	ACTUATOR-SW1016A/CV31744 AUX BLDG FAN FLOOR FCU A SV	1	ROB	E3395, E3397	AUX	659	ENERGZD/DEENERGZD	DEENERGZD	NO	S/R
33837/SW1016B	ACTUATOR-SW1016B/CV31745 AUX BLDG FAN FLOOR FCU B SV	2	ROB	E3395, E3397	AUX	659	ENERGZD/DEENERGZD	DEENERGZD	NO	S/R
33838/SW1006C	ACTUATOR-SW1006C/CV31746 AUX BLDG BSMT FCU C SV	1	ROB	E3396, E3397	AUX	588	ENERGZD/DEENERGZD	DEENERGZD	NO	S/R
33839/SW1006D	ACTUATOR-SW1006D/CV31747 AUX BLDG BSMT FCU D SV	2	ROB	E3396, E3397	AUX	588	ENERGZD/DEENERGZD	DEENERGZD	NO	S/R
33875	VALVE-SOLENOID-D/G RM 1A DMPR CONTROL SV 1A3	1	8	E1606, E3610	ADM	593	ENERGZD/DEENERGZD	ENERGZD	YES	S/R
33876	VALVE-SOLENOID-D/G RM 1A DMPR CONTROL SV 1A4	1	8	E1606, E3610	ADM	593	ENERGZD/DEENERGZD	ENERGZD	YES	S/R
33877	VALVE-SOLENOID-D/G RM 1B DMPR CONTROL SV 1B3	2	8	E1606, E3610	ADM	593	ENERGZD/DEENERGZD	ENERGZD	YES	S/R
33878	VALVE-SOLENOID-D/G RM 1B DMPR CONTROL SV 1B4	2	8	E1606, E3610	ADM	593	ENERGZD/DEENERGZD	ENERGZD	YES	S/R
34072POS/34072	POSITIONER FOR 34072	1	ROB	E1606, M601	TURB	601	CLOSED	OPEN	NO	S
34073POS/34073	POSITIONER FOR 34073	2	ROB	E1606, M601	ADM	592	CLOSED	OPEN	NO	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
35014/PS1B	TRANSDUCER-PRZR SPRAY FROM COLD LEG LOOP B	2	18	E2038, XK-100-10	CONT	631	ON	ON	YES	S/R
35015	SIGNAL CNVTR-SW TO CCW HEAT EXCH BYPASS LOOP	1	ROB	E1632, M202	AUX	611	ENERGZD	ENERGZD	YES	R
35016	SIGNAL CNVTR-SW TO CCW HEAT EXCH BYPASS LOOP	2	ROB	E1632, M202	AUX	611	ENERGZD	ENERGZD	YES	R
35036/PS1A	TRANSDUCER-PRZR SPRAY FROM COLD LEG LOOP A	1	18	E2038, XK-100-10	CONT	631	ON	ON	YES	S/R
36039/34072	REGULATOR-D/G RM 1A AIR COMP SPLY TO DMPR CONTROL SV	1	18	E1606, M213-9	ADM	592	ON	ON	YES	S
36040/34073	REGULATOR-D/G RM 1B AIR COMP SPLY TO DMPR CONTROL SV	2	18	E1606, M213-9	ADM	592	ON	ON	YES	S
36042/34074	REGULATOR-SCRN HSE EXH FAN 1A DISCH DMPR TRN A/B AIR REG	1	18	E1606	SH	590	ON	ON	YES	S
36071/33878	REGULATOR-D/G RM 1B DAMPER CONTROL TO SV 33878	2	18	E1606, M213-9	ADM	593	ON	ON	YES	S
36072/33877	REGULATOR-D/G RM 1B DAMPER CONTROL TO SV 33877	2	18	E1606, M213-9	ADM	593	ON	ON	YES	S
36073/33876	REGULATOR-D/G RM 1A DAMPER CONTROL TO SV 33876	1	18	E1606, M213-9	ADM	592	ON	ON	YES	S
36074/33875	REGULATOR-D/G RM 1A DAMPER CONTROL TO SV 33875	1	18	E1606, M213-9	ADM	592	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
3610005/31103	REGULATOR-IA FOR 31103	-	ROB	M213-2	AUX	590	ON	ON	YES	S
3610006/31103	REGULATOR-IA FOR 31103	-	ROB	M213-2	AUX	590	ON	ON	YES	S
3610349/31110	REGULATOR-IA FOR 31110	1	18	M213-8	CONT	655	ON	ON	YES	S
3610350/31109	REGULATOR-IA FOR 31109	2	18	M213-8	CONT	655	ON	ON	YES	S
4104101	INDICATOR-AUXILIARY FEEDWATER AFW PUMP A DISCH PRESS 4104101	1	ROB	E1602, E2374, M205	AUX	626	ON	ON	YES	S
4104102	INDICATOR-AUXILIARY FEEDWATER AFW PUMP A HDR A FLOW 4104102	1	ROB	E1602, E2377, M205	AUX	626	ON	ON	YES	S
4104201	INDICATOR-AUXILIARY FEEDWATER AFW PUMP B DISCH PRESS 4104201	2	ROB	E1602, E2375, M205	AUX	626	ON	ON	YES	S
4104202	INDICATOR-AUXILIARY FEEDWATER AFW PUMP B HDR B FLOW 4104202	2	ROB	E1602, E2378, M205	AUX	626	ON	ON	YES	S
4104801	INDICATOR-STM GEN A LEVEL RED-LI461	1	ROB	E696, E1809	AUX	626	ON	ON	YES	S
4104802	INDICATOR-STM GEN A LEVEL BLUE-LI462	1	ROB	E696, E1809	AUX	626	ON	ON	YES	S
4104803	INDICATOR-STM GEN A LEVEL YELLOW-LI463	1	ROB	E696, E1809	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4104901	INDICATOR-STEAM GENERATORS S/G A PRESSURE RED PI468 4104901	1	ROB	E1627, E2823, M203	AUX	626	ON	ON	YES	S
4104902	INDICATOR-STEAM GENERATORS S/G A PRESS WHITE PI469 4104902	1	ROB	E1626, E2824, M203	AUX	626	ON	ON	YES	S
4104903	INDICATOR-STEAM GENERATORS S/G A PRESS BLUE PI482A 4104903	1	ROB	E2835, M203	AUX	626	ON	ON	YES	S
4105201	INDICATOR-STEAM GENERATORS S/G B LEVEL YELLOW LI471 4105201	2	ROB	E699, E1809, E2006	AUX	626	ON	ON	YES	S
4105202	INDICATOR-STM GEN B LEVEL RED-LI472	2	ROB	E697, E1809	AUX	626	ON	ON	YES	S
4105203	INDICATOR-STM GEN B LEVEL WHITE-LI473	2	ROB	E697, E1809	AUX	626	ON	ON	YES	S
4105301	INDICATOR-STEAM GENERATORS S/G B PRESSURE BLUE PI478 4105301	2	ROB	E1627, E2831, M203	AUX	626	ON	ON	YES	S
4105302	INDICATOR-STM GENERATORS S/G B PRESSURE YELLOW PI479 4105302	2	ROB	E1626, E2836, M203	AUX	626	ON	ON	YES	S
4105303	INDICATOR-STEAM GENERATORS S/G B PRESSURE RED PI483A 4105303	2	ROB	E2836, M203	AUX	626	ON	ON	YES	S
4120304	INDICATOR-REACTOR COOLANT PUMP A NO. 1 SEAL-OUTLET TEMP TI181	1	ROB	E2026, E1811	AUX	626	ON	ON	YES	S
4120305	INDICATOR-RX COOLANT PUMP A NO.1 SEAL INJN FLOW INDICATOR	1	ROB	E2027, E2572	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4120404	INDICATOR-REACTOR COOLANT PUMP B NO. 1 SEAL-OUTLET TEMP TI182	2	ROB	E2026, E1811	AUX	626	ON	ON	YES	S
4120405	INDICATOR-RX COOLANT PUMP B NO.1 SEAL INJN FLOW INDICATOR	2	ROB	E2027, E2572	AUX	626	ON	ON	YES	S
4120802	INDICATOR-CVC-VOLUME CONTROL TANK PRESS PI139	-	ROB	E2027, E2581, XK-100-38	AUX	626	ON	ON	YES	S
4120804	INDICATOR-CVC-VOLUME CONTROL TANK LEVEL LI141B	-	ROB	E2023, E2574, XK-100-36	AUX	626	ON	ON	YES	S
4122001	INDICATOR-PRESSURIZER LEVEL-LI426 4122001	-	ROB	E2039, E2540, XK-100-10	AUX	626	ON	ON	YES	S
4122002	INDICATOR-PRESSURIZER LEVEL-LI427 4122002	-	ROB	E2039, E2540, XK-100-10	AUX	626	ON	ON	YES	S
4122101	INDICATOR-PRESSURIZER LEVEL-LI428 4122101	-	ROB	E2038, E2535, XK-100-10	AUX	626	ON	ON	YES	S
4122201	INDICATOR-PRESSURIZER-PRESS PI429 4122201	-	ROB	E2038, E2535, XK-100-10	AUX	626	ON	ON	YES	S
4122202	INDICATOR-PRESSURIZER-PRESS PI430 4122202	-	ROB	E2038, E2534, XK-100-10	AUX	626	ON	ON	YES	S
4122301	INDICATOR-PRESSURIZER-PRESS PI431 4122301	-	ROB	E2038, E2535, XK-100-10	AUX	626	ON	ON	YES	S
4122901	INDICATOR-NUCLEAR INSTR-SOURCE RANGE COUNT RATE NI-31B	-	ROB	E2051, E3754	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4122902	INDICATOR-NUCLEAR INSTR-SOURCE RANGE START-UP RATE NI-31D	-	ROB	E2051, E3754	AUX	626	ON	ON	YES	S
4122903	INDICATOR-NUCLEAR INSTR-SOURCE RANGE COUNT RATE NI-32B	-	ROB	E2051, E3754	AUX	626	ON	ON	YES	S
4122904	INDICATOR-NUCLEAR INSTR-SOURCE RANGE START-UP RATE NI-32D	-	ROB	E2051, E3754	AUX	626	ON	ON	YES	S
4130101	INDICATOR-REACTOR CLNT SYS-WIDE RNG PRESS DUAL SCALE PI-420	-	ROB	E2036, E3721	AUX	626	ON	ON	YES	S
4130102	INDICATOR-REACTOR CLNT SYS-WIDE RNG PRESS PI-419 4130102	-	ROB	E2036, E3722	AUX	626	ON	ON	YES	S
4130201	INDICATOR-COMPONENT COOLING SURGE TANK LEVEL INDICATOR	-	ROB	E700, E1816, E2055, XK-100-19	AUX	626	ON	ON	YES	S
4130202	INDICATOR-COMPONENT COOLING PUMP A/B DISCHARGE PRESS	-	ROB	E700, E1816, E2055, XK-100-19	AUX	626	ON	ON	YES	S
4130501	CONTROL STATION-COMP CLG-REACTOR CLNT PUMP A TEMP OUTLET TI-612	1	ROB	E703, E1816, E2055, XK-100-20	AUX	626	ON	ON	YES	S
4130502	INDICATOR-COMP CLG-REACTOR CLNT PMP A TEMP THERM BARR TI-614	1	ROB	E703, E1816, XK-100-20	AUX	626	ON	ON	YES	S
4131101	INDICATOR-ECCS TANK LEVELS-RWST LI-920 4131101	-	ROB	E2035, E3749, XK-100-29	AUX	626	ON	ON	YES	S
4131102	INDICATOR-ECCS TANK LEVELS-RWST LI-921 4131102	-	ROB	E2035, E3749, XK-100-29	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4131201	INDICATOR-COMP CLG-REACTOR CLNT PMP B TEMP OUTLET TI-608	2	ROB	E2035, E3749, XK-100-20	AUX	626	ON	ON	YES	S
4131202	INDICATOR-COMP CLG-REACTOR CLNT PMP B TEMP THERM BARR TI-610	2	ROB	E2035, E3749, XK-100-20	AUX	626	ON	ON	YES	S
4131301	INDICATOR-SAFETY INJECTION PUMP A DISCH PRESS PI-922	1	ROB	E2036, E3721, XK-100-29	AUX	626	ON	ON	YES	S
4131302	INDICATOR-SAFETY INJECTION FLOW COLD LEGS FI-925	1	ROB	E2033, E3750, XK-100-29	AUX	626	ON	ON	YES	S
4131401	INDICATOR-SAFETY INJECTION PUMP B DISCH PRESS PI-923	2	ROB	E701, E1818, XK-100-29	AUX	626	ON	ON	YES	S
4131402	INDICATOR-SAFETY INJECTION FLOW REACTOR VESSEL FI-924	2	ROB	E1772, E1818, E2033, XK-100-29	AUX	626	ON	ON	YES	S
41338	INDICATOR-STM GEN A WIDE RANGE LEVEL INDICATOR	1	ROB	E1835, E3326, E3751	AUX	626	ON	ON	YES	S
41339	INDICATOR-STM GEN B WIDE RANGE LEVEL INDICATOR	2	ROB	E1835, E3326, E3752	AUX	626	ON	ON	YES	S
41503	INDICATOR-SERVICE WATER- HEADER A-PRESSURE 41503	1	ROB	E1630, E2395, M202	AUX	626	ON	ON	YES	S
41506	INDICATOR-SERVICE WATER HEADER B PRESSURE 41506	2	ROB	E1630, E2395, M202	AUX	626	ON	ON	YES	S
4155201	INDICATOR-PRESSURIZER RELIEF TANK- PRESSURE PI-440 4155201	-	ROB	E2040, E2564, XK-100-10	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4155203	INDICATOR-PRESSURIZER RELIEF TANK LEVEL LI-442 4155203	-	ROB	E2040, E2558, XK-100-10	AUX	626	ON	ON	YES	S
4250101	RECORDER-RCS RED-LOOP A HOT LEG WR TEMPERATURE	1	ROB	E702, E1838, E2037, XK-100-10	AUX	626	ON	ON	YES	S
4250102	RECORDER-RCS GREEN-LOOP B HOT LEG WR TEMPERATURE	2	ROB	E702, E1838, E2037, XK-100-10	AUX	626	ON	ON	YES	S
4255501	RECORDER-RCS RED-LOOP A COLD LEG WR TEMPERATURE	1	ROB	E2037, E2562, XK-100-10	AUX	626	ON	ON	YES	S
4255502	RECORDER-RCS GREEN-LOOP B COLD LEG WR TEMPERATURE	2	ROB	E2038, E2555, XK-100-10	AUX	626	ON	ON	YES	S
4255701	RECORDER-LOW RANGE FLOW RED-RXCP A SEAL LEAKOFF FLOW	1	ROB	E941, E1838, E1839, E2027, XK-100-35	AUX	626	ON	ON	YES	S
4255702	RECORDER-LOW RANGE FLOW GREEN-RXCP B SEAL LEAKOFF FLOW	2	ROB	E941, E1838, E1839, E2027, XK-100-35	AUX	626	ON	ON	YES	S
4255801	RECORDER-HIGH RANGE FLOW RED-RXCP A SEAL LEAKOFF FLOW	1	ROB	E941, E1838, E1839, E2027, XK-100-35	AUX	626	ON	ON	YES	S
4255802	RECORDER-HIGH RANGE FLOW GREEN-RXCP B SEAL LEAKOFF FLOW	2	ROB	E941, E1838, E1839, E2027, XK-100-35	AUX	626	ON	ON	YES	S
4301301	CONTROL STATION-S/G A PORV SD3A/CV31170 43001301/HC-468	1	ROB	E1627, E2831	AUX	626	DEENERGZD	VARIES	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4301302	CONTROL STATION-S/G B PORV SD3B/CV31174 4301302/HC-478	2	ROB	E1627, E2831	AUX	626	DEENERGZD	VARIES	YES	S
4330403	CONTROL STATION-MASTER CONT SETPT 4330403/HC-43K	-	ROB	E2038, XK-100-28	AUX	626	OFF	ON/OFF	YES	S
4458501	INDICATOR-SD-3A/31170 S/G A PORV CLOSE IL	1	ROB	E1627, E1837, E3167	AUX	626	ON/OFF	ON	YES	S
4458502	INDICATOR-SD-3A/31170 S/G A PORV OPEN IL	1	ROB	E1627, E1837, E3167	AUX	626	ON/OFF	ON	YES	S
4458901	INDICATOR-SD-3B/31174 S/G B PORV CLOSE IL	2	ROB	E1627, E1789, E1837	AUX	626	ON/OFF	ON	YES	S
4458902	INDICATOR-SD-3B/31174 S/G B PORV OPEN IL	2	ROB	E1627, E1789, E1837	AUX	626	ON/OFF	ON	YES	S
4461101	INDICATOR-DIESEL GENERATOR A- FREQUENCY 4461101	1	ROB	E641, E1802	AUX	626	ON	ON	YES	S
4461102	INDICATOR-DIESEL GENERATOR A-VOLTAGE 4161102	1	ROB	E641, E1862	AUX	626	ON	ON	YES	S
4461103	INDICATOR-DIESEL GENERATOR/A-POWER 4461103	1	ROB	E641, E1802	AUX	630	ON	ON	YES	S
4461201	INDICATOR-DIESEL GENERATOR/A-PHASE A CURRENT 4461201	1	ROB	E641, E1802	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
4461202	INDICATOR-DIESEL GENERATOR/A-PHASE B CURRENT 4461202	1	ROB	E641, E1802	AUX	626	ON	ON	YES	S
4461203	INDICATOR-DIESEL GENERATOR/A-PHASE C CURRENT 4461203	1	ROB	E641, E1802	AUX	626	ON	ON	YES	S
4462001	INDICATOR-DIESEL GENERATOR/B-PHASE A CURRENT 4462001	2	ROB	E642, E1800	AUX	626	ON	ON	YES	S
4462002	INDICATOR-DIESEL GENERATOR/B-PHASE B CURRENT 4462002	2	ROB	E642, E1800	AUX	626	ON	ON	YES	S
4462003	INDICATOR-DIESEL GENERATOR/B-PHASE C CURRENT 4462003	2	ROB	E642, E1800	AUX	626	ON	ON	YES	S
4462101	INDICATOR-DIESEL GENERATOR/B FREQUENCY 4462101	2	ROB	E642, E1800	AUX	626	ON	ON	YES	S
4462102	INDICATOR-DIESEL GENERATOR/B-VOLTAGE 4462102	2	ROB	E642, E1800	AUX	626	ON	ON	YES	S
4462103	INSTRUMENT-DIESEL GENERATOR/B-POWER 4462103	2	ROB	E642, E1800	AUX	626	ON	ON	YES	S
44870	INDICATOR-IRPI FOR CONTROL BANK A	-	ROB	E233, E817, E1844	AUX	626	ON	ON	YES	S
44871	INDICATOR-IRPI FOR CONTROL BANK D	-	ROB	E233, E819, E1844	AUX	626	ON	ON	YES	S
44872	INDICATOR-IRPI FOR CONTROL BANK C	-	ROB	E233, E819, E1844	AUX	626	ON	ON	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
44873	INDICATOR-IRPI FOR CONTROL BANK B	-	ROB	E233, E818, E1844	AUX	626	ON	ON	YES	S
44874	INDICATOR-IRPI FOR SHUTDOWN BANK B	-	ROB	E233, E818, E1844	AUX	626	ON	ON	YES	S
44875	INDICATOR-IRPI FOR SHUTDOWN BANK A	-	ROB	E233, E1817, E1844	AUX	626	ON	ON	YES	S
46111	SWITCH-AUXILIARY FEEDWATER PUMP A	1	ROB	E1602, E1808	AUX	626	ENERGZD	ENERGZD	YES	S
46112	SWITCH-AUXILIARY FEEDWATER PUMP B	2	ROB	E1602, E1808	AUX	626	ENERGZD	ENERGZD	YES	S
46123	SWITCH-AFW-10A/MV-32027 AFW TRAIN A CROSSOVER VALVE	-	ROB	E1602, E1808	AUX	629	ENERGZD	ENERGZD	YES	S
46124	SWITCH-AFW-10B/MV-32028 AFW TRAIN B CROSSOVER VALVE	-	ROB	E1602, E1808	AUX	629	ENERGZD	ENERGZD	YES	S
46324	SWITCH-PRZR PRESSURE CHANNEL SELECTOR ES	-	ROB	E1814, E2038	AUX	629	ENERGZD	ENERGZD	YES	S
46327	SWITCH-PRZR LEVEL CONTROL CHANNEL SELECTOR	-	ROB	E1814, E2039	AUX	629	ENERGZD	ENERGZD	YES	S
47021H	ANNUNCIATOR-COMP COOLING PUMP DISCH HDR PRESS LOW	-	ROB	E744-55, E3106, E3644, E3647	AUX	626	ON	ON	YES	S
48512	CONTROLLER-SRVC WTR HDR 1A P XMTR TU	1	ROB	E1530, E1630	AUX	613	ON	ON	YES	S

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
48513	CONTROLLER-SW HDR 1B P XMTR	2	ROB	E1513, E1630	AUX	613	ON	ON	YES	S
55002	SWITCH-DGM 1A LUBE OIL PRESS SHUTDOWN SWITCH	1	ROB	E1586, E1621	ADM	586	CLOSED	OPEN	NO	S/R
55004	SWITCH-DGM 1A LOW JACKET WATER PRESS SHUTDOWN SWITCH	1	ROB	E1586, E1621	ADM	586	CLOSED	OPEN	NO	S/R
55008	SWITCH-DGM 1A FUEL OIL PRESS SWITCH	1	ROB	E1586, E1621	ADM	586	CLOSED	OPEN	NO	S/R
55100	SWITCH-DGM 1B FUEL OIL PRESS SWITCH	2	ROB	E1588, E1621	ADM	586	CLOSED	OPEN	NO	S/R
55104	SWITCH-DGM 1B LOW JACKET WATER PRESS SHUTDOWN SWITCH	2	ROB	E1588, E1621	ADM	586	CLOSED	OPEN	NO	S/R
84018	SIGNAL CNVTR-NEUTRON FLUX MONITORING WIDE RANGE AMPLIFIER AS	-	14	E3754	AUX	606	ON	ON	YES	S
84019	SIGNAL CNVTR-NEUTRON FLUX MONITORING WIDE RANGE AMPLIFIER AS	-	14	E3754	AUX	589	ON	ON	YES	S
84020	ISOLATION DEVICE-NEUTRON FLUX MONITORING OPTICAL ISOLATOR AS	-	14	E3754	AUX	609	ON	ON	YES	S
ACC15/34084	ACTUATOR-RELAY RM ISOL INLET DMPR	-	7	E2004, E2762, M603	AUX	615	OPEN	OPEN	NO	S
ACC16/34085	ACTUATOR-RELAY RM ISOL OUTLET DMPR	-	7	E2004, E2762, M603	AUX	616	OPEN	OPEN	NO	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
ACC5/34007	ACTUATOR-ACC5/CD34007 NON-ACCIDENT FRESH AIR DAMPER, CLOSED	1	7	E1920, E2003, M603	AUX	651	OPEN	CLOSED	NO	S
BRA101	BATTERY-SAFEGUARDS STATION BATTERY A	1	15	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRA101N	CABINET-BRA101N FUSE CAB (NEG)	1	20	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRA101P	CABINET-BRA101P FUSE CAB (POS)	1	20	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRA102	CABINET-BRA102 125VDC MAIN DISTR. CAB.	1	14	E233, E2173	TURB	606	ENERGZD	ENERGZD	YES	S/R
BRA104	CABINET-BRA104 125VDC DISTR. CAB.	1	14	E233, E2176	TURB	606	ENERGZD	ENERGZD	YES	S/R
BRA105	CABINET-MIN. INTERRUPT. BUS 120/208 VAC DISTR. CAB.	1	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRA106	TRANSFORMER-INSTRUMENT BUS TRANSFORMER	1	4	E233	TURB	606	ON	ON	YES	S
BRA107	RELAY-ELECT-BRA107 AUTOMATIC TRANSFER SWITCH	1	14	E233, XK-317-3	TURB	608	OPEN	OPEN	YES	S/R
BRA108	CHARGER-BATTERY CHARGER BRA108 125V DC	1	16	E233, XK-02789-9	TURB	606	ON	ON	YES	S/R
BRA111	INVERTER-BRA 111 (INSTRUMENT BUS I)	1	16	E233, E3440	TURB	606	OPEN	OPEN	YES	S/R

Revision.4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
BRA112	INVERTER-BRA 112 (INSTRUMENT BUS IV)	1	16	E233, E3441	TURB	606	OPEN	OPEN	YES	S/R
BRA113	CABINET-BRA113 118VAC DISTR. CAB.	1	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRA113EXT	CABINET-BRA113EXT 118 VOLT AC DISTRIBUTION CABINET	1	14	E233	TURB	586	ENERGZD	ENERGZD	YES	S
BRA114	CABINET-BRA114 118VAC DISTR CAB	1	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB101	BATTERY-SAFEGUARDS STATION BATTERY B	2	15	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB101N	CABINET-BRB101N FUSE CAB (NEG)	2	20	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB101P	CABINET-BRB101P FUSE CAB (POS)	2	20	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB102	CABINET-BRB102 125VDC MAIN DISTR. CAB.	2	14	E233, E2174	TURB	606	ENERGZD	ENERGZD	YES	S/R
BRB104	CABINET-BRB104 125VDC DISTR. CAB.	2	14	E233, E2176	TURB	606	ENERGZD	ENERGZD	YES	S/R
BRB105	CABINET-MIN. INTERRUPT. BUS 120/208 VAC DISTR. CAB.	2	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB106	TRANSFORMER-BRB106 INSTRUMENT BUS	2	4	E233	TURB	606	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
BRB107	RELAY-ELECT-BRB107 AUTOMATIC TRANSFER SWITCH	2	14	E233, XK-317-3	TURB	608	OPEN	OPEN	YES	S/R
BRB108	CHARGER-BATTERY CHARGER BRB108 125V DC	2	16	E233, XK-02789-9	TURB	606	ON	ON	YES	S/R
BRB111	INVERTER-BRB111 (INSTRUMENT BUS II)	2	16	E233, E3438	TURB	606	OPEN	OPEN	YES	S/R
BRB112	INVERTER-BRB112 (INSTRUMENT BUS III)	2	16	E233, E3439	TURB	606	OPEN	OPEN	YES	S/R
BRB113	CABINET-BRB113 118VAC DISTR. CAB.	2	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB113EXT	CABINET-BRB113EXT 118VAC DISTR. CAB	2	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB114	CABINET-BRB114 118VAC DISTR. CAB.	2	14	E233	TURB	606	ENERGZD	ENERGZD	YES	S
BRB127	CABINET-BRB127-120/208 VOLT DISTRIBUTION CABINET	2	14	E233, E3654	TURB	606	ENERGZD	ENERGZD	YES	S
BRD115	CABINET-BRD115 120VAC DISTR CAB	-	14	E3626	TURB	610	ENERGZD	ENERGZD	YES	S
BUS5	SWITCHGEAR-PRIM-4160V SWITCHGEAR BUS 5	1	3	E240	ADM	586	ENERGZD	ENERGZD	YES	S
BUS51	SWITCHGEAR-SEC-480V SWITCHGEAR BUS 51	1	2	E240	TURB	586	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
BUS52	SWITCHGEAR-SEC-480V SWITCHGEAR BUS 52	1	2	E240	TURB	586	ENERGZD	ENERGZD	YES	S
BUS6	SWITCHGEAR-PRIM-4160V SWITCHGEAR BUS 6	2	3	E240	ADM	586	ENERGZD	ENERGZD	YES	S
BUS61	SWITCHGEAR-SEC-480V SWITCHGEAR BUS 61	2	2	E240	TURB	586	ENERGZD	ENERGZD	YES	S
BUS62	SWITCHGEAR-SEC-480V SWITCHGEAR BUS 62	2	2	E240	TURB	586	ENERGZD	ENERGZD	YES	S
CR101	CONSOLE-CR101 ELECL CONT CONSOLE A	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR102	CONSOLE-CR102 ELECT CONT CONSOLE A	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR103	CONSOLE-CR103 MECHANICAL CONSOLE B	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR104	CONSOLE-CR104 MECH CONT CONSOLE C	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR105	PANEL-CR105 ELEC VERT PNL A	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR106	PANEL-CR106 MECH VERT PNL A	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR107	PANEL-CR107 MECH VERT PNL B	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
CR108	PANEL-CR108 N.I.S. RACK NO.4	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR109	PANEL-CR109 N.I.S. RACK NO.3	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR110	PANEL-CR110 N.I.S. RACK NO.2	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR111	PANEL-CR111 N.I.S. RACK NO.1	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR112	PANEL-CR112 IIS RACK NO 4	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR113	PANEL-CR113 IIS RACK NO 3	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR114	PANEL-CR114 IIS RACK NO 2	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR115	PANEL-CR115 IIS RACK NO 1	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR116	PANEL-CR116 RMS RACK NO 2	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR117	PANEL-CR117 RMS RACK NO 1	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S
CR118	PANEL-CR118 RMS RACK	-	20	E854	AUX	626	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
CVC261	VALVE-RELIEF-SEAL WATER RETURN LINE TO PRESSURIZER RLF TANK	-	7	XK-100-35	CONT	604	CLOSED	OP/CL	NO	S
DR101	CABINET-DR101 D/G CONTROL CAB 1A	1	20	E240, E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR102	CABINET-DR102 LOGIC PANEL 1A 4KV	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR103	CABINET-DR103 LOGIC PANEL 1A 480V	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR104	CABINET-DR104 SEQ LOADING 1A PANEL	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR105	CABINET-DR105 SEQ LOADING 1A PANEL	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR106	CABINET-DR106 SEQ LOADING 1A PANEL	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR107	CABINET-DR107 TRANSDUCER PANEL 1A	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR108	CABINET-DR108 AUX RELAY PANEL	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR109	CABINET-DR109 AUX RELAY PANEL	1	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR111	CABINET-DR111 DIESEL GEN CONTROL CAB 1B	2	20	E240, E329	ADM	586	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
DR112	CABINET-DR112 LOGIC PANEL 1B 4KV	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR113	CABINET-DR113 LOGIC PANEL 1B 480V	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR114	CABINET-DR114 SEQ LOADING 1B PANEL	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR115	CABINET-DR115 SEQ LOADING 1B PANEL	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR116	CABINET-DR116 SEQ LOADING 1B PANEL	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR117	CABINET-DR117 TRANSDUCER PANEL 1B	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR118	CABINET-DR118 AUX RELAY PANEL	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
DR119	CABINET-DR119 AUX RELAY PANEL	2	20	E329	ADM	586	ENERGZD	ENERGZD	YES	S
FP-31363	PANEL-CARDOX CONT PNL DGA	1	20	E328, E2153	ADM	591	ENERGZD	ENERGZD	YES	S
FP-31364	PANEL-CARDOX CONT PNL DGB	2	20	E328, E2154	ADM	591	ENERGZD	ENERGZD	YES	S
FR101	PANEL-STEAM EXCLUSION LOGIC PANEL 1A	-	20	XK-639-1	AUX	642	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
FR102	PANEL-STEAM EXCLUSION LOGIC PANEL 1B	-	20	XK-639-1	AUX	642	ENERGZD	ENERGZD	YES	S
IBSDII	CABINET-INST BUS 2 SUB DISTRIBUTION CABINET	2	20	E233, E240	AUX	606	ENERGZD	ENERGZD	YES	S
IBSDIV	CABINET-INST BUS 4 SUB DISTRIBUTION CABINET	1	20	E233, E240	AUX	606	ENERGZD	ENERGZD	YES	S
JB2659	JUNCTION BOX-NEUTRON FLUX MONITORING JUNCTION BOX ASSY	-	20	E804, E2051, E3754	CONT	623	ENERGZD	ENERGZD	YES	S
JB2660	JUNCTION BOX-NEUTRON FLUX MONITORING JUNCTION BOX ASSY	-	20	E804, E2051, E3754	CONT	615	ENERGZD	ENERGZD	YES	S
MCC3352	MCC-MCC BUS 3352	1	1	E240	AUX	606	ENERGZD	ENERGZD	YES	S
MCC5262	MCC-MCC BUS 5262	-	1	E240	TURB	586	ENERGZD	ENERGZD	YES	S
MCC52A	MCC-MCC BUS 52A	1	1	E240	ADM	586	ENERGZD	ENERGZD	YES	S
MCC52B	MCC-MCC BUS 52B	1	1	E240	AUX	606	ENERGZD	ENERGZD	YES	S
MCC52BEXT	MCC-MCC BUS 52BEXT	1	1	E240	AUX	606	ENERGZD	ENERGZD	YES	S
MCC52C	MCC-MCC BUS 52C	1	1	E240	TURB	606	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
MCC52D	MCC-MCC BUS 52D	1	1	E240	SH	586	ENERGZD	ENERGZD	YES	S
MCC52E	MCC-MCC BUS 52E	1	1	E240	AUX	586	ENERGZD	ENERGZD	YES	S
MCC52F	MCC-MCC BUS 52F	1	1	E240	AUX	642	ENERGZD	ENERGZD	YES	S
MCC52FEXT	MCC-MCC BUS 52FEXT	1	1	E240	AUX	642	ENERGZD	ENERGZD	YES	S
MCC62A	MCC-MCC BUS 62A	2	1	E240	ADM	586	ENERGZD	ENERGZD	YES	S
MCC62B	MCC-MCC BUS 62B	2	1	E240	AUX	606	ENERGZD	ENERGZD	YES	S
MCC62BEXT	MCC-MCC BUS 62BEXT	2	1	E240	AUX	606	ENERGZD	ENERGZD	YES	S
MCC62C	MCC-MCC BUS 62C	2	1	E240	TURB	606	ENERGZD	ENERGZD	YES	S
MCC62D	MCC-MCC BUS 62D	2	1	E240	SH	586	ENERGZD	ENERGZD	YES	S
MCC62E	MCC-MCC BUS 62E	2	1	E240	AUX	586	ENERGZD	ENERGZD	YES	S
MCC62G	MCC-MCC BUS 62G	2	1	E240	AUX	626	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
MCC62H	MCC-MCC BUS 62H	2	1	E240	AUX	586	ENERGZD	ENERGZD	YES	S
MCC62J	MCC-MCC BUS 62J	2	1	E240	AUX	642	ENERGZD	ENERGZD	YES	S
RBV150A/34130	DAMPER-RBV150A/CD34130 CNTMT FAN COIL UNIT A EMERG DISCH DMPR	1	10	E3310, E3311, E3312, XK-73317-1, M602	CONT	637	CLOSED	OPEN	NO	S/R
RBV150B/34131	DAMPER-RBV150B/CD34131 CNTMT FAN COIL UNIT B EMERG DISCH DMPR	1	10	E3310, E3311, E3312, XK-73317-1, M602	CONT	637	CLOSED	OPEN	NO	S/R
RBV150C/34132	DAMPER-RBV150C/CD34132 CNTMT FAN COIL UNIT C EMERG DISCH DMPR	2	10	E3310, E3311, E3312, XK-73317-1, M602	CONT	617	CLOSED	OPEN	NO	S/R
RBV150D/34133	DAMPER-RBV150D/CD34133 CNTMT FAN COIL UNIT D EMERG DISCH DMPR	2	10	E3310, E3311, E3312, XK-73317-1, M602	CONT	617	CLOSED	OPEN	NO	S/R
RD106	CABINET-RD106-REACTOR TRIP BKRS.	-	2	E850	AUX	626	CLOSED	OPEN	YES	S
RR104	RELAY RACK-RR104-SAFETY INJ/AUX COOLANT IC1	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR107	RELAY RACK-RR107-YELLOW CHANNEL 1Y2 (IC118)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR108	RELAY RACK-RR108-RED CHANNEL 1R1 (IC111)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR109	RELAY RACK-RR109-RED CHANNEL 1R2 (IC112)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
RR112	RELAY RACK-RR112-BLUE CHANNEL 1B1 (IC115)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR113	RELAY RACK-RR113-BLUE CHANNEL 1B2 (IC116)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR114	RELAY RACK-RR114-WHITE CHANNEL 1W1 (IC113)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR115	RELAY RACK-RR115-WHITE CHANNEL 1W2 (IC114)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR116	RELAY RACK-RR116-CHEMICAL AND VOL CONT CVCS-1	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR117	RELAY RACK-RR117-CHEMICAL AND VOL CONT CVCS-2	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR119	RELAY RACK-RR119-REACTOR COOLANT RC-1 (IC128)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR120	RELAY RACK-RR120-REACTOR COOLANT RCS2 1 (IC129)	-	20	XK-100-317	AUX	606	ENERGZD	ENERGZD	YES	S
RR121	RELAY RACK-RR121 REACTOR PROTECTION TRAIN B (IC165)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR122	RELAY RACK-RR122 REACTOR PROTECTION TRAIN B (IC164)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR123	RELAY RACK-RR123 REACTOR PROTECTION TRAIN B (IC163)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
RR124	RELAY RACK-RR124 REACTOR PROTECTION TRAIN B (1C162)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR125	RELAY RACK-RR125 REACTOR PROTECTION TRAIN B (1C161)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR126	RELAY RACK-RR126	-	20	XK-100-375, XK-100-376	AUX	606	ENERGZD	ENERGZD	YES	S
RR127	RELAY RACK-RR127-ENGRD SAFEGUARD TRAIN B 1C	-	20	XK-100-375, XK-100-376	AUX	606	ENERGZD	ENERGZD	YES	S
RR128	RELAY RACK-RR128-ENGRD SAFEGUARD TRAIN A	-	20	XK-100-375, XK-100-376	AUX	606	ENERGZD	ENERGZD	YES	S
RR129	RELAY RACK-RR129-ENGRD TRAIN A 1C	-	20	XK-100-375, XK-100-376	AUX	606	ENERGZD	ENERGZD	YES	S
RR130	RELAY RACK-RR130 REACTOR PROTECTION TRAIN A (1C151)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR131	RELAY RACK-RR131 REACTOR PROTECTION TRAIN A (1C152)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR132	RELAY RACK-RR132 REACTOR PROTECTION TRAIN A (1C153)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR133	RELAY RACK-RR133 REACTOR PROTECTION TRAIN A (1C154)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR134	RELAY RACK-RR134 REACTOR PROTECTION TRAIN A (1C155)	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
RR142	RELAY RACK-RR142-AUX RELAY RACK TRAIN A	-	20	XK-525-4	AUX	606	ENERGZD	ENERGZD	YES	S
RR143	RELAY RACK-RR143-AUX RELAY RACK TRAIN A	-	20	XK-525-4	AUX	606	ENERGZD	ENERGZD	YES	S
RR144	RELAY RACK-RR144-AUX RELAY RACK TRAIN B	-	20	XK-525-7	AUX	606	ENERGZD	ENERGZD	YES	S
RR147	RELAY RACK-RR147-AUX RELAY RACK B	-	20	XK-100-256	AUX	606	ENERGZD	ENERGZD	YES	S
RR148	RELAY RACK-RR148- ROD POSITION IND PNL RPI NO	-	20	XK-100-306, XK-100-1339, XK-100-1340	AUX	606	ENERGZD	ENERGZD	YES	S
RR149	RELAY RACK-RR149- ROD POSITION IND PNL RPI NO	-	20	XK-100-306, XK-100-1339, XK-100-1340	AUX	606	ENERGZD	ENERGZD	YES	S
RR150	RELAY RACK-RR150- ROD POSITION IND PNL RPI NO	-	20	XK-100-306, XK-100-1339, XK-100-1340	AUX	606	ENERGZD	ENERGZD	YES	S
RR161	RELAY RACK-RR161- RED CHANNEL 1R3	-	20	XK-15064-3, XK-15064-4	AUX	606	ENERGZD	ENERGZD	YES	S
RR162	RELAY RACK-RR162-WHITE FOXBORO CHANNEL 1W3	-	20	XK-15064-3, XK-15064-4	AUX	606	ENERGZD	ENERGZD	YES	S
RR163	RELAY RACK-RR163-BOP INST RACK 1A	-	20	XK-390-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR164	RELAY RACK-RR164-BOP INSTR RACK 1B	-	20	XK-390-12	AUX	606	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
RR170	RELAY RACK-RR170-SUB DISTR AC FUSE PANEL	-	20	XK-531-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR171	RELAY RACK-RR171-SUB DISTR. D.C. FUSE PANEL TRAIN A	-	20	XK-531-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR173	RELAY RACK-RR173-SUB DISTR. A.C. FUSE PANEL NORMAL	-	20	XK-531-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR174	RELAY RACK-RR174-SUB DISTR. D.C. FUSE PANEL NORMAL	-	20	XK-531-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR175	RELAY RACK-RR175-SUB DISTR. A.C. FUSE PANEL TRAIN B	-	20	XK-531-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR176	RELAY RACK-RR176-SUB DISTR. D.C. FUSE PANEL TRAIN B	-	20	XK-531-1	AUX	606	ENERGZD	ENERGZD	YES	S
RR186	RELAY RACK-RR186-ICCMS TRAIN B	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
RR187	RELAY RACK-RR187-ICCMS TRAIN A	-	20	XK-100-1222	AUX	606	ENERGZD	ENERGZD	YES	S
SD-100	PANEL-FUSE PANEL SD-100 AC SAFEGUARD 5	1	20	E3102, XK-54111-4	TURB	586	ENERGZD	ENERGZD	YES	S
SD-101	PANEL-FUSE PANEL SD-101 DC SAFEGUARD 5	1	20	E3103, XK-54111-4	TURB	586	ENERGZD	ENERGZD	YES	S
SD-103	PANEL-DEDICATED SHUTDOWN ANALOG CONTROL PANEL	-	20	XK-54116-16 XK-54116-17	TURB	586	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
SD1A1	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1A	1	7	M203	AUX	625	CLOSED	CLOSED	NO	S
SD1A2	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1A	1	7	M203	AUX	625	CLOSED	CLOSED	NO	S
SD1A3	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1A	1	7	M203	AUX	625	CLOSED	CLOSED	NO	S
SD1A4	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1A	1	7	M203	AUX	625	CLOSED	CLOSED	NO	S
SD1A5	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1A	1	7	M203	AUX	625	CLOSED	CLOSED	NO	S
SD1B1	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1B	2	7	M203	AUX	623	CLOSED	CLOSED	NO	S
SD1B2	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1B	2	7	M203	AUX	623	CLOSED	CLOSED	NO	S
SD1B3	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1B	2	7	M203	AUX	623	CLOSED	CLOSED	NO	S
SD1B4	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1B	2	7	M203	AUX	623	CLOSED	CLOSED	NO	S
SD1B5	VALVE-RELIEF-SAFETY TO ATMOS-STEAM GEN 1B	2	7	M203	AUX	623	CLOSED	CLOSED	NO	S
STARTER01	MOTOR STARTER-AFW10A/MV32027 AFW TRAIN A X-OVER VALVE	-	14	E1489, E1602, XK-477-12	TURB	590	ENERGZD	ENERGZD	YES	S

Revision 4
March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
STARTER02	MOTOR STARTER-AFW10B/MV32028 AFW TRAIN B X-OVER VALVE	-	14	E1489, E1602, XK-477-12	TURB	590	ENERGZD	ENERGZD	YES	S
STARTER03	MOTOR STARTER-BT3A/MV32078 SG A BLOWDOWN ISOL VALVE A2	1	14	E1487, E1629, XK-477-12	AUX	630	ENERGZD	ENERGZD	YES	S
STARTER04	MOTOR STARTER-BT3B/MV32080 SG B BLOWDOWN ISOL VALVE B2	2	14	E1487, E1629, XK-477-12	AUX	630	ENERGZD	ENERGZD	YES	S
TAV60A/34072	DAMPER-OUTSIDE AIR INLET DAMPER TO DG ROOM 1A	1	10	E1606, M601	ADM	602	OP/CL	OPEN	YES	S
TAV60B/34073	DAMPER-OUTSIDE AIR INLET DAMPER TO DG ROOM 1B	2	10	E1606, M601	ADM	602	OP/CL	OPEN	YES	S
TAV61A/34004	DAMPER-DIESEL GEN RM RECIRC SUPPLY FAN 1A DAMPER	1	10	E1606, M601	ADM	601	OP/CL	CLOSED	NO	S
TAV61B/34045	DAMPER-DIESEL GEN RM RECIRC SUPPLY FAN 1B DAMPER	2	10	E1606, M601	ADM	601	OP/CL	CLOSED	NO	S
TAV62A/34011	DAMPER-DIESEL GEN RM 1A OUTLET DAMPER	1	10	E1606, M601	ADM	603	OPEN	OPEN	NO	S
TAV62B/34012	DAMPER-DIESEL GEN RM 1B OUTLET DAMPER	2	10	E1606, M601	ADM	603	CLOSED	OPEN	YES	S
TAV63A/34074	DAMPER-SCREENHOUSE EXHAUST FAN 1A DAMPER	1	10	E1606, M601, XK-386-2, XK-386-3	SCRN	608	OP/CL	OPEN	NO	S
TB1282	TERMINAL BOX-TB1282 AUX RELAY BOX FOR SWGR BUS 1-51 AND 1-52	1	20	E548	TURB	586	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
TB1283	TERMINAL BOX-AUX RELAY BOX FOR SWGR BUS 1-61 AND 1-62	2	20	-	TURB	586	ENERGZD	ENERGZD	YES	S
TB1285	TERMINAL BOX-AUX RELAY BOX FOR SWGR BUSES 1 & 2	-	20	-	AUX	586	ENERGZD	ENERGZD	YES	S
TB1371	TERMINAL BOX-TB1371-TB FOR SV33261, 33270 FUTURE	-	20	E336, E2112	AUX	606	ENERGZD	ENERGZD	YES	S
TB1434	TERMINAL BOX-TB FOR POWER TRANSFER RELAY BOX (SFGD 5)	-	20	E636	TURB	586	ENERGZD	ENERGZD	YES	S
TB1435	TERMINAL BOX-TB FOR POWER TRANSFER RELAY BOX (SFGD 6)	-	20	E636	TURB	586	ENERGZD	ENERGZD	YES	S
TB1626	TERMINAL BOX-TB1626-TB FOR SV33429, SV33431, ETC. (S5)	-	20	E2651	TURB	642	ENERGZD	ENERGZD	YES	S
TB2059	TERMINAL BOX-1A AIR START PRIORITY PANEL	-	ROB	-	ADM	586	ENERGZD	ENERGZD	YES	S
TB2060	TERMINAL BOX-1B AIR START PRIORITY PANEL	-	ROB	-	ADM	586	ENERGZD	ENERGZD	YES	S
TB2087	TERMINAL BOX-TB2087-TB FOR AUX RELAYS FOR MCC62J	2	20	E3080	AUX	642	ENERGZD	ENERGZD	YES	S
TB2292	TERMINAL BOX-TB2292-CONTAINMENT CLG TRN B LOCKOUT RELAY CABINET	2	20	E854, E1829	AUX	626	ENERGZD	ENERGZD	YES	S
TB2293	TERMINAL BOX-TB2293-CONTAINMENT COOLING TRN A LOCKOUT RELAY CABINET	1	20	E854, E1832	AUX	626	ENERGZD	ENERGZD	YES	S

Revision 4
 March, 1996

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)										
EQUIPMENT NO.	EQUIPMENT DESCRIPTION	TRAIN	EQUIP CLASS	REF DRAWINGS	BLDG	ELEV	OPERATING STATE			EVAL TYPE
							NORMAL	DESIRED	PWR REQ	
XFMR51	TRANSFORMER-STATION SERVICE TRANSFORMER 51	1	4	E240, XK-206-13	TURB	586	ENERGZD	ENERGZD	YES	S
XFMR52	TRANSFORMER-STATION SERVICE TRANSFORMER 52	1	4	E240, XK-206-13	TURB	586	ENERGZD	ENERGZD	YES	S
XFMR53	TRANSFORMER-PRESSURIZER HEATER TRANSFORMER 53	1	4	E240, XK-216-47	AUX	606	ENERGZD	ENERGZD	YES	S
XFMR61	TRANSFORMER-STATION SERVICE TRANSFORMER 61	2	4	E240, XK-206-22	TURB	586	ENERGZD	ENERGZD	YES	S
XFMR62	TRANSFORMER-STATION SERVICE TRANSFORMER 62	2	4	E240, XK-206-22	TURB	586	ENERGZD	ENERGZD	YES	S
XFMR63	TRANSFORMER-PRESSURIZER HEATER TRANSFORMER 63	2	4	E240, XK-216-47	AUX	626	ENERGZD	ENERGZD	YES	S

32418/AFW-201A AFWP 1A to X-Connect S/G B - Equipment Class 8
 32419/AFW-201B AFWP 1B to X-Connect S/G A - Equipment Class 8

145-142 RHR Pump 1B - Equipment Class 6
 135-051 RHR Heat Exchanger A - Equipment Class 21
 32066/ICS5A Internal Containment Spray MOV 5A - Equipment Class 8

Appendix B.2

Seismic Walkdown Equipment List (SWEL)

- SWEL 1
- Base List 2 and SWEL 2
- SWEL
- Summary Tables

Seismic Walkdown Equipment List (SWEL) 1												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
1	1	MCC52A	MCC BUS 52A	40	Admin	586	Yes		1, 2, 3, 4, 5		003	1, 2
2	1	MCC52C	MCC BUS 52C	40	TURB	606	Yes		1, 2, 3, 4, 5		015	1, 2, 3
3	1	MCC52E	MCC BUS 52E	40	AUX	586	Yes		1,3,4,5		011	1, 2, 3
4	1	MCC52F	MCC BUS 52F	40	AUX	642	No		1, 3, 4, 5	Yes	024	1, 2
5	2	BUS51	480V SWITCHGEAR BUS 51	40	TURB	586	Yes		1, 4, 5		001	2
6	2	RD106	Reactor Trip Breakers	49	AUX	626	Yes		1	Yes	023	1, 2, 3
7	3	BUS6	4160V SWITCHGEAR BUS 6	39	Admin	586	Yes		1, 2, 3, 4, 5		041	1, 2
8	4	BRA106	Instrument Bus Transformer	38	TURB	606	No	Yes	1, 2, 3, 4, 5		015	1, 2, 3
9	4	XFMR51	Station Service Transformer 51	40	TURB	586	Yes		1, 4, 5	Yes	001	2, 3
10	4	XFMR52	Station Service Transformer 52	40	TURB	586	Yes		1, 2, 3, 4, 5	Yes	001	2
11	5	145-101	Charging Pump 1A	35	AUX	586	Yes	Yes	1, 2, 3		010	2, 3
12	5	145-151	Component Cooling Pump 1A	25	AUX	606	Yes	Yes	1, 2, 4		017	2, 3
13	6	145-441	Service Water Pump 1A1	2	SCRNHSE	586	Yes	Yes	1, 4, 5		005	2, 3
14	6	145-541	EDG Fuel Oil Transfer Pump 1A	10	Admin	586	Yes	Yes	1, 2, 3, 4, 5	Yes	014	
15	6	145-142	RHR Pump 1B	34	AUX	568	Yes		1, 2, 3, 4, 5		012	2, 3
16	7	31038/SW3A	Service Water Header Isolation	2	SCRNHSE	569	Yes		4		006	
17	7	101-027	SW TURB BLDG HDR 1A CV (SW-4A Accumulator)	1	Admin	586	Yes		4		003	2
18	7	31015/MS1A	Check Valve MS Isol Valve Gen 1A	6	AUX	618	Yes		1, 5		020	
19	7	31170/SD3A	MS Controlled Relief Steam HDR 1A	6	AUX	626	Yes		1, 2, 4	Yes	020	
20	7	31688/CVC200	Seal WTR Injection Bypass Block CV	35	AUX	586	Yes		1	Yes	010	

Seismic Walkdown Equipment List (SWEL) 1												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
21	7	31704/SW901A-1	Header 1A Shroud CLG Coil A/B Bypass	2	CONT	606	No		5		036	1
22	8	32007/MS2A	S/A A MSIV Bypass Valve	6	AUX	618	No		1, 5		020	
23	8	32009/SW1300A	CCW HX 1A Outlet	2	AUX	606	No	Yes	1, 4		016	
24	8	32011/SW10A	AUX BLDG SW Header A Isolation	2	Admin	586	Yes		1, 2, 3, 4, 5		003	
25	8	32027/AFW10A	TDAFWP to S/G A	5B	Turbine	586	Yes	Yes	1, 2, 4, 5		002	
26	8	32038/MS100A	S/G A STM SPLY to TDAFW Pump	6	AUX	618	No	Yes	1, 2, 4, 5		020	
27	8	32040/MS102	TDAFW Pump Main Steam Isolation	6	Turbine	586	Yes	Yes	1, 2, 4		013	
28	8	32056/CVC301	RWST Supply to Charging Pumps	35	AUX	586	Yes	Yes	1, 3		010	
29	8	32066/ICS5A	CNTMT Spray PMP A DISCH ISOL	23	AUX	586	No	Yes	5		008	
30	8	32078/BT3A	S/G A Blowdown Isolation Valve A2	7	AUX	606	Yes	Yes	1, 5		030	
31	8	32107/SI5A	SI Pump A Suction Isolation	33	AUX	585	Yes	Yes	1, 2, 3, 4		009	
32	8	32109/SI4A	RWST Supply SI Pumps	33	AUX	586	Yes		1, 2, 3, 4		009	
33	8	32116/RHR1A	RCS Loop A Supply to RHR Pumps	34	CONT	586	Yes		1, 2, 3, 4		034	1
34	8	32121/CC6A	CC HX A Outlet	31	AUX	606	Yes		1, 2, 4		016	
35	8	32131/SI208	SI Recirculation to RWST	33	AUX	586	No	Yes	1, 2, 3, 4	Yes	009	
36	8	32416/AFW2A	AFWP A Flow Control Valve	5B	Turbine	586	No	Yes	1, 2, 4		002	
37	8	32418/AFW201A	AFWP 1A to X-Connect S/G B	5B	Turbine	586	No	New	1, 2, 4		002	
38	8	33033/SW301A	EDG 1A Oil Cooler Water Outlet	2	Admin	586	Yes		1, 2, 3, 4, 5		003	
39	8	33454	SCRNHSE EXH Fan 1A DISCH DMPR A SV	16	SCRNHSE	586	Yes		1, 2, 3, 4, 5		005	2
40	8	33875	EDG Room 1A DMPR Control SV 1A3	16	Admin	586	Yes		1, 2, 3, 4, 5		003	2

Seismic Walkdown Equipment List (SWEL) 1												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
41	9	132-131	Control Room A/C Fan 1A	25	AUX	642	No		1, 2, 3, 4, 5	Yes	024	2, 3
42	9	132-051	Battery Room Exhaust Fan 1A	16	Turbine	593	No		1, 2, 3, 4, 5		015	2, 3
43	9	132-081	EDG Room Vent Supply Fan 1A	16	Admin	586	Yes		1, 2, 3, 4, 5		003	2
44	10	155-031	Fan Coil Unit Turbine 1A	16	Turbine	586	Yes		1, 2, 3, 4, 5		001	2, 3
45	10	155-011	Fan Coil Unit Containment 1A	18	CONT	626	Yes		5		039	1, 2
46	10	155-211	FCU-Battery Room 1A	16	Turbine	606	Yes		1, 2, 3, 4, 5		015	2
47	10	RBV150A/34130	CNTMT Fan Coil A Disch Damper	18	CONT	649	No		5		040	1
48	10	155-301	FCU-Aux Bldg Fan FLR FCU 1A	17	AUX	657	No		5		029	2, 3
49	10	32367	Control Room Fresh Air Inlet Damper A	25	AUX	642	No		1, 2, 3, 4, 5		024	
50	10	TAV60A/34072	Outside Air Inlet Damper to DG Room 1A	16	Admin	586	Yes		1, 2, 3, 4, 5		003	
51	12	162-131	CONTOL RM A/C COMPR 1A	25	AUX	642	No	Yes	1, 2, 3, 4, 5		024	2
52	14	84018	Signal CNVTR-Neutron Flux Monitor	48	AUX	606	No		1		027	2, 3
53	14	BRA102	125VDC MAIN DISTR. CABINET	38	TURB	606	Yes		1, 2, 3, 4, 5		015	2, 3
54	14	BRA104	125VDC DISTR. CABINET	38	TURB	606	Yes		1, 2, 3, 4, 5		015	2, 3
55	14	BRA114	118VAC DISTR CAB	38	TURB	606	No		1, 2, 3, 4, 5		015	2, 3
56	14	STARTER01	AFW10A/MV32027 A X-OVER VALVE	5B	TURB	586	Yes	Yes	1, 2, 4, 5		002	1, 2, 3
57	15	BRA101	Station Battery A	38	TURB	606	Yes	Yes	1, 2, 3, 4, 5		015	2, 3
58	16	BRA108	Battery Charger 125VDC	38	TURB	606	Yes		1, 2, 3, 4, 5		015	2, 3
59	16	BRA111	Inverter (Instrument Bus I)	38	TURB	606	Yes		1, 2, 3, 4, 5		015	1, 2, 3
60	16	BRA112	Inverter (Instrument Bus IV)	38	TURB	606	Yes		1, 2, 3, 4, 5		015	1, 2, 3

Seismic Walkdown Equipment List (SWEL) 1												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
61	17	134-031	Diesel Generator 1A	10	ADMIN	586	Yes		1, 2, 3, 4, 5		003	2, 3
62	18	11267	EDG Fuel Oil Day Tanks 1A1/1A2 DPI	10	ADMIN	586	No		1, 2, 3, 4, 5		004	2, 3
63	18	15507J	AFWP A Aux Lube Oil Pump Start	5B	TURB	586	Yes		1, 2, 4		002	2
64	18	16112	MS HDR 1A Relief Pressure Switch (SD-3A/CV-31170)	6	AUX	618	No		1, 2, 4		020	2
65	18	16233	Battery Room FCU 1A DISCH AIR TS	2	TURB	606	Yes		1, 2, 3, 4, 5		015	2
66	18	16395	Screenhouse 1A Area TS	16	SCRNHSE	586	No		1, 2, 3, 4, 5		005	2
67	18	16572	D/G Room 1A DMPR Control TS	16	Admin	586	No		1, 2, 3, 4, 5		003	2
68	18	21005	SW HDR 1A Pressure Transmitter	2	SCRNHSE	586	No		4, 5		028	2, 3
69	18	21083	PRZR Pressure Relief Tank P XMTR	36	CONT	586	No		1,3		035	1, 2, 3
70	18	21090	SI Pmp 1A DSCH Pressure XMTR	33	AUX	586	No		3		009	2
71	18	23010	AFW to STM GEN 1A Flow XMTR	5B	AUX	586	No		4		031	2, 3
72	18	24013	Steam Generator 1A Level Ind. XMTR	5A	CONT	606	No		4		037	1, 2
73	18	24040	RWST Level XMTR (LT-920)	33	AUX	586	No		3		032	2
74	18	26018	Controller: CCW Pumps 1A/1B DSCH PC	31	AUX	606	No		1, 2, 4		017	2, 3
75	18	26330	Control RM A/C 1A Cooling WTR TC	25	AUX	642	No		1, 2, 3, 4, 5		024	2
76	18	36073	EDG RM 1A Damper Control/SV 33876	16	Admin	586	Yes		1, 2, 3, 4, 5		003	2
77	19	15124	Rx Coolant Loop A Cold Leg RTD	36	CONT	618	No		2, 3, 4		038	1
78	20	BRA101N	BRA101N Fuse Cabinet (NEG)	38	TURB	606	No		1, 2, 3, 4, 5		015	2
79	20	CR107	Mechanical Vert Panel B	N/A	AUX	626	No		1		022	2, 3

Seismic Walkdown Equipment List (SWEL) 1												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
80	20	CR112	Mechanical Vert Panel C	N/A	AUX	626	No		2, 3, 5	Yes	022	2
81	20	CR105	Electrical Vert Panel A	N/A	AUX	626	No		1,2,3,4,5		022	2
82	20	CR106	Mechanical Vert Panel A	N/A	AUX	626	No		1, 2, 4, 5		022	2, 3
83	20	DR101	EDG Control Cabinet 1A	42	Admin	586	Yes		1, 2, 3, 4, 5	Yes	003	2, 3
84	20	DR102	DR102 Logic Panel 1A 4 kv	39	Admin	586	Yes		1, 2, 3, 4, 5		003	2
85	20	DR108	Aux Relay Panel	2	Admin	586	No		1, 2, 3, 4, 5		028	2
86	20	FR101	Steam Exclusion Logic Panel 1A	14	AUX	642	No		1, 2, 3, 4, 5		025	2, 3
87	20	IBSDIV	Inst Bus 4 Sub Dist. Cabinet	38	AUX	606	No		1,3,5		018	2
88	20	JB2659	Neutron Flux Monitoring Junction Box	48	CONT	606	No		1		036	1, 2
89	20	RR104	Safety Inj/Aux Coolant 1C1	33	AUX	606	No		1,3,4		019	2
90	20	RR119	Reactor Coolant RC-1 (1C128)	36	AUX	606	No		3,4		019	2
91	20	RR128	Engineered Safeguard Train A	55	AUX	606	No		2,3,4,5		019	2
92	20	RR130	Reactor Protection Train A	47	AUX	606	Yes		1,4,3		019	2, 3
93	20	RR143	Aux Relay Rack Train A	18	AUX	606	No		4		019	2
94	20	RR148	Rod Position Indicator	49	AUX	606	No		1		019	2
95	20	RR175	AC Fuse Panel Safeguard 6	38	AUX	606	No		1, 2, 3, 4, 5		019	2, 3
96	20	SD-100	Fuse Panel AC Safeguard	38	TURB	586	No		1, 2, 3, 4, 5		001	2
97	20	SD-103	Dedicated Shutdown Analog Control Panel	36	TURB	586	No		1, 2, 3, 4		001	2
98	21	135-051	RHR HX 1A	34	AUX	606	No		1, 3, 4		026	2, 3
99	21	135-081	Component Cooling HX 1A	31	AUX	608	Yes	Yes	1, 2, 4		016	2, 3

Seismic Walkdown Equipment List (SWEL) 1												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
100	21	153-021	Refueling Water Storage Tank	33	AUX	586	Yes		1, 2, 3, 4, 5	Yes	007	2, 3
101	21	153-351	Diesel Gen Fuel Oil Day Tank	10	Admin	586	Yes		1, 2, 3, 4, 5		004	2, 3

Notes:

1. Not sufficiently accessible to complete the walkdown inspection. To be inspected when accessible.
2. Has anchorage
3. Detailed anchorage inspection to be performed

5 Safety Functions

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

Base List 2

Equipment Class	Equipment ID	Equipment Description
18	11055	SFP HX DPI
18	11104	Refueling WTR Purification Pump DSCH PI
18	12007	SFP 1A HI Temp Indicator
18	12012	SFP 1B HI Temp Indicator
18	16640	Switch SFP 1A HI/LO LA
18	16641	Switch SFP 1B HI/LO LA
7	31293/FPC-204	Actuator SFP Purif Loop Flow CV
21	135-091	SFP HX
5	145-161	Refueling Water Purification Pump

SWEL 2

Equipment Class	Equipment ID	Equipment Description	System	Bldg	Elevation	Area Walkby	Notes
18	11055	SFP HX DPI	21	Aux	622	021	2, 3
7	31293/FPC-204	Actuator SFP Purif Loop Flow CV	21	Aux	606	033	
21	135-091	SFP HX	21	Aux	622	021	2, 3

Notes

1. Note not used
2. Has anchorage
3. Detailed anchorage inspection to be performed

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
1	1	MCC52A	MCC BUS 52A	40	Admin	586	Yes		1, 2, 3, 4, 5		003	1, 2
2	1	MCC52C	MCC BUS 52C	40	TURB	606	Yes		1, 2, 3, 4, 5		015	1, 2, 3
3	1	MCC52E	MCC BUS 52E	40	AUX	586	Yes		1,3,4,5		011	1, 2, 3
4	1	MCC52F	MCC BUS 52F	40	AUX	642	No		1, 3, 4, 5	Yes	024	1, 2
5	2	BUS51	480V SWITCHGEAR BUS 51	40	TURB	586	Yes		1, 4, 5		001	2
6	2	RD106	Reactor Trip Breakers	49	AUX	626	Yes		1	Yes	023	1, 2, 3
7	3	BUS6	4160V SWITCHGEAR BUS 6	39	Admin	586	Yes		1, 2, 3, 4, 5		041	1, 2
8	4	BRA106	Instrument Bus Transformer	38	TURB	606	No	Yes	1, 2, 3, 4, 5		015	1, 2, 3
9	4	XFMR51	Station Service Transformer 51	40	TURB	586	Yes		1, 4, 5	Yes	001	2, 3
10	4	XFMR52	Station Service Transformer 52	40	TURB	586	Yes		1, 2, 3, 4, 5	Yes	001	2
11	5	145-101	Charging Pump 1A	35	AUX	586	Yes	Yes	1, 2, 3		010	2, 3
12	5	145-151	Component Cooling Pump 1A	25	AUX	606	Yes	Yes	1, 2, 4		017	2, 3
13	6	145-441	Service Water Pump 1A1	2	SCRNH SE	586	Yes	Yes	1, 4, 5		005	2, 3
14	6	145-541	EDG Fuel Oil Transfer Pump 1A	10	Admin	586	Yes	Yes	1, 2, 3, 4, 5	Yes	014	
15	6	145-142	RHR Pump 1B	34	AUX	568	Yes		1, 2, 3, 4, 5		012	2, 3
16	7	31038/SW3A	Service Water Header Isolation	2	SCRNH SE	569	Yes		4		006	
17	7	101-027	SW TURB BLDG HDR 1A CV (SW-4A Accumulator)	1	Admin	586	Yes		4		003	2
18	7	31015/MS1A	Check Valve MS Isol Valve Gen 1A	6	AUX	618	Yes		1, 5		020	

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
19	7	31170/SD3A	MS Controlled Relief Steam HDR 1A	6	AUX	626	Yes		1, 2, 4	Yes	020	
20	7	31688/CVC200	Seal WTR Injection Bypass Block CV	35	AUX	586	Yes		1	Yes	010	
21	7	31704/SW901 A-1	Header 1A Shroud CLG Coil A/B Bypass	2	CONT	606	No		5		036	1
22	8	32007/MS2A	S/A A MSIV Bypass Valve	6	AUX	618	No		1, 5		020	
23	8	32009/SW1300 A	CCW HX 1A Outlet	2	AUX	606	No	Yes	1, 4		016	
24	8	32011/SW10A	AUX BLDG SW Header A Isolation	2	Admin	586	Yes		1, 2, 3, 4, 5		003	
25	8	32027/AFW10 A	TDAFWP to S/G A	5B	Turbine	586	Yes	Yes	1, 2, 4, 5		002	
26	8	32038/MS100A	S/G A STM SPLY to TDAFW Pump	6	AUX	618	No	Yes	1, 2, 4, 5		020	
27	8	32040/MS102	TDAFW Pump Main Steam Isolation	6	Turbine	586	Yes	Yes	1, 2, 4		013	
28	8	32056/CVC301	RWST Supply to Charging Pumps	35	AUX	586	Yes	Yes	1, 3		010	
29	8	32066/ICS5A	CNTMT Spray PMP A DISCH ISOL	23	AUX	586	No	Yes	5		008	
30	8	32078/BT3A	S/G A Blowdown Isolation Valve A2	7	AUX	606	Yes	Yes	1, 5		030	
31	8	32107/SI5A	SI Pump A Suction Isolation	33	AUX	585	Yes	Yes	1, 2, 3, 4		009	
32	8	32109/SI4A	RWST Supply SI Pumps	33	AUX	586	Yes		1, 2, 3, 4		009	
33	8	32116/RHR1A	RCS Loop A Supply to RHR Pumps	34	CONT	586	Yes		1, 2, 3, 4		034	1

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
34	8	32121/CC6A	CC HX A Outlet	31	AUX	606	Yes		1, 2, 4		016	
35	8	32131/SI208	SI Recirculation to RWST	33	AUX	586	No	Yes	1, 2, 3, 4	Yes	009	
36	8	32416/AFW2A	AFWP A Flow Control Valve	5B	Turbine	586	No	Yes	1, 2, 4		002	
37	8	32418/AFW201 A	AFWP 1A to X-Connect S/G B	5B	Turbine	586	No	New	1, 2, 4		002	
38	8	33033/SW301 A	EDG 1A Oil Cooler Water Outlet	2	Admin	586	Yes		1, 2, 3, 4, 5		003	
39	8	33454	SCRNHSE EXH Fan 1A DISCH DMPR A SV	16	SCRNH SE	586	Yes		1, 2, 3, 4, 5		005	2
40	8	33875	EDG Room 1A DMPR Control SV 1A3	16	Admin	586	Yes		1, 2, 3, 4, 5		003	2
41	9	132-131	Control Room A/C Fan 1A	25	AUX	642	No		1, 2, 3, 4, 5	Yes	024	2, 3
42	9	132-051	Battery Room Exhaust Fan 1A	16	Turbine	593	No		1, 2, 3, 4, 5		015	2, 3
43	9	132-081	EDG Room Vent Supply Fan 1A	16	Admin	586	Yes		1, 2, 3, 4, 5		003	2
44	10	155-031	Fan Coil Unit Turbine 1A	16	Turbine	586	Yes		1, 2, 3, 4, 5		001	2, 3
45	10	155-011	Fan Coil Unit Containment 1A	18	CONT	626	Yes		5		039	1, 2
46	10	155-211	FCU-Battery Room 1A	16	Turbine	606	Yes		1, 2, 3, 4, 5		015	2
47	10	RBV150A/3413 0	CNTMT Fan Coil A Disch Damper	18	CONT	649	No		5		040	1
48	10	155-301	FCU-Aux Bldg Fan FLR FCU 1A	17	AUX	657	No		5		029	2, 3
49	10	32367	Control Room Fresh Air Inlet Damper A	25	AUX	642	No		1, 2, 3, 4, 5		024	

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
50	10	TAV60A/34072	Outside Air Inlet Damper to DG Room 1A	16	Admin	586	Yes		1, 2, 3, 4, 5		003	
51	12	162-131	CONTOL RM A/C COMPR 1A	25	AUX	642	No	Yes	1, 2, 3, 4, 5		024	2
52	14	84018	Signal CNVTR-Neutron Flux Monitor	48	AUX	606	No		1		027	2, 3
53	14	BRA102	125VDC MAIN DISTR. CABINET	38	TURB	606	Yes		1, 2, 3, 4, 5		015	2, 3
54	14	BRA104	125VDC DISTR. CABINET	38	TURB	606	Yes		1, 2, 3, 4, 5		015	2, 3
55	14	BRA114	118VAC DISTR CAB	38	TURB	606	No		1, 2, 3, 4, 5		015	2, 3
56	14	STARTER01	AFW10A/MV3202 7 A X-OVER VALVE	5B	TURB	586	Yes	Yes	1, 2, 4, 5		002	1, 2, 3
57	15	BRA101	Station Battery A	38	TURB	606	Yes	Yes	1, 2, 3, 4, 5		015	2, 3
58	16	BRA108	Battery Charger 125VDC	38	TURB	606	Yes		1, 2, 3, 4, 5		015	2, 3
59	16	BRA111	Inverter (Instrument Bus I)	38	TURB	606	Yes		1, 2, 3, 4, 5		015	1, 2, 3
60	16	BRA112	Inverter (Instrument Bus IV)	38	TURB	606	Yes		1, 2, 3, 4, 5		015	1, 2, 3
61	17	134-031	Diesel Generator 1A	10	ADMIN	586	Yes		1, 2, 3, 4, 5		003	2, 3
62	18	11267	EDG Fuel Oil Day Tanks 1A1/1A2 DPI	10	ADMIN	586	No		1, 2, 3, 4, 5		004	2, 3
63	18	15507J	AFWP A Aux Lube Oil Pump Start	5B	TURB	586	Yes		1, 2, 4		002	2
64	18	16112	MS HDR 1A Relief Pressure Switch (SD-3A/CV-31170)	6	AUX	618	No		1, 2, 4		020	2

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
65	18	16233	Battery Room FCU 1A DISCH AIR TS	2	TURB	606	Yes		1, 2, 3, 4, 5		015	2
66	18	16395	Screenhouse 1A Area TS	16	SCRNH SE	586	No		1, 2, 3, 4, 5		005	2
67	18	16572	D/G Room 1A DMPR Control TS	16	Admin	586	No		1, 2, 3, 4, 5		003	2
68	18	21005	SW HDR 1A Pressure Transmitter	2	SCRNH SE	586	No		4, 5		028	2, 3
69	18	21083	PRZR Pressure Relief Tank P XMTR	36	CONT	586	No		1,3		035	1, 2, 3
70	18	21090	SI Pmp 1A DSCH Pressure XMTR	33	AUX	586	No		3		009	2
71	18	23010	AFW to STM GEN 1A Flow XMTR	5B	AUX	586	No		4		031	2, 3
72	18	24013	Steam Generator 1A Level Ind. XMTR	5A	CONT	606	No		4		037	1,2
73	18	24040	RWST Level XMTR (LT-920)	33	AUX	586	No		3		032	2
74	18	26018	Controller: CCW Pumps 1A/1B DSCH PC	31	AUX	606	No		1, 2, 4		017	2, 3
75	18	26330	Control RM A/C 1A Cooling WTR TC	25	AUX	642	No		1, 2, 3, 4, 5		024	2
76	18	36073	EDG RM 1A Damper Control/SV 33876	16	Admin	586	Yes		1, 2, 3, 4, 5		003	2
77	19	15124	Rx Coolant Loop A Cold Leg RTD	36	CONT	618	No		2, 3, 4		038	1
78	20	BRA101N	BRA101N Fuse Cabinet (NEG)	38	TURB	606	No		1, 2, 3, 4, 5		015	2
79	20	CR107	Mechanical Vert Panel B	N/A	AUX	626	No		1		022	2, 3

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
80	20	CR112	Mechanical Vert Panel C	N/A	AUX	626	No		2, 3, 5	Yes	022	2
81	20	CR105	Electrical Vert Panel A	N/A	AUX	626	No		1,2,3,4,5		022	2
82	20	CR106	Mechanical Vert Panel A	N/A	AUX	626	No		1, 2, 4, 5		022	2, 3
83	20	DR101	EDG Control Cabinet 1A	42	Admin	586	Yes		1, 2, 3, 4, 5	Yes	003	2, 3
84	20	DR102	DR102 Logic Panel 1A 4 kv	39	Admin	586	Yes		1, 2, 3, 4, 5		003	2
85	20	DR108	Aux Relay Panel	2	Admin	586	No		1, 2, 3, 4, 5		028	2
86	20	FR101	Steam Exclusion Logic Panel 1A	14	AUX	642	No		1, 2, 3, 4, 5		025	2, 3
87	20	IBSDIV	Inst Bus 4 Sub Dist. Cabinet	38	AUX	606	No		1,3,5		018	2
88	20	JB2659	Neutron Flux Monitoring Junction Box	48	CONT	606	No		1		036	1, 2
89	20	RR104	Safety Inj/Aux Coolant 1C1	33	AUX	606	No		1,3,4		019	2
90	20	RR119	Reactor Coolant RC-1 (1C128)	36	AUX	606	No		3,4		019	2
91	20	RR128	Engineered Safeguard Train A	55	AUX	606	No		2,3,4,5		019	2
92	20	RR130	Reactor Protection Train A	47	AUX	606	Yes		1,4,3		019	2, 3
93	20	RR143	Aux Relay Rack Train A	18	AUX	606	No		4		019	2
94	20	RR148	Rod Position Indicator	49	AUX	606	No		1		019	2
95	20	RR175	AC Fuse Panel Safeguard 6	38	AUX	606	No		1, 2, 3, 4, 5		019	2, 3
96	20	SD-100	Fuse Panel AC Safeguard	38	TURB	586	No		1, 2, 3, 4, 5		001	2

Seismic Walkdown Equipment List (SWEL)												
Item #	Class	ID	Description	System	BLDG	ELEV	Risk Significant (Yes/No)	New or Replaced	5 Safety Functions	Enhanced (Outlier)	Area Walk-by	Notes
97	20	SD-103	Dedicated Shutdown Analog Control Panel	36	TURB	586	No		1, 2, 3, 4		001	2
98	21	135-051	RHR HX 1A	34	AUX	606	No		1, 3, 4		026	2, 3
99	21	135-081	Component Cooling HX 1A	31	AUX	608	Yes	Yes	1, 2, 4		016	2, 3
100	21	153-021	Refueling Water Storage Tank	33	AUX	586	Yes		1, 2, 3, 4, 5	Yes	007	2, 3
101	21	153-351	Diesel Gen Fuel Oil Day Tank	10	Admin	586	Yes		1, 2, 3, 4, 5		004	2, 3
102	18	11055	SFP HX DPI	21	Aux	622	No		N/A		021	2, 3, 4
103	7	31293/FPC-204	Actuator SFP Purif Loop Flow CV	21	Aux	606	No		N/A		033	4
104	21	135-091	SFP HX	21	Aux	622	No		N/A		021	2, 3, 4

Notes:

1. Not sufficiently accessible to complete the walkdown inspection. To be inspected when accessible.
2. Has anchorage
3. Detailed anchorage inspection to be performed
4. From SWEL 2

5 Safety Functions

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

Summary Tables: Equipment Classes and Systems
SWEL Equipment Class Summary

GIP Equipment Class	Class Title	Equipment Count
0	Miscellaneous	0
1	Motor Control Centers	4
2	Low Voltage Switchgear	2
3	Medium Voltage Switchgear	1
4	Transformers	3
5	Horizontal Pumps	2
6	Vertical Pumps	3
7	Fluid Operated Valves	7
8	Motor Operated Valves, Solenoid Operated Valves	19
9	Fans	3
10	Air Handlers	7
11	Chillers	0
12	Air Compressors	1
13	Motor Generators	0
14	Distribution Panels	5
15	Batteries on Racks	1
16	Battery Chargers and Inverters	3
17	Engine Generators	1
18	Instruments on Racks	16
19	Temperature Sensors	1
20	Instrumentation and Control Panels and Racks	20
21	Tanks and Heat Exchangers (GIP Section 7)	5
	TOTAL	104

Summary Tables: Equipment Classes and Systems
SWEL System Summary

System ID	System Description	Equipment Count
1	Station Air & Instrument Air System (AS)	1
2	Service Water System (SW)	9
5A	Feedwater System (FW)	1
5B	Auxiliary Feedwater System (AFW)	6
6	Main Steam & Steam Dump (MS)	6
7	Blowdown Treatment & Steam Generator BD (BT)	1
10	Diesel Generator Mechanical (DGM)	4
14	Aux BLDG Special Vent. System (ASV)	1
16	Turbine BLDG & Screenhouse Vent. System (TAC)	10
17	Auxiliary BLDG Ventilation System (ACA)	1
18	Reactor BLDG Ventilation System (RBV)	3
21	Spent Fuel Pool Cooling & Cleanup System (SFP)	3
23	Internal Containment Spray (ICS)	1
25	Control Room Air Conditioning System (ACC)	5
31	Component Cooling Water System(CC)	3
33	Safety Injection System (SI)	7
34	Residual Heat Removal System (RHR)	3
35	Chemical & Volume Control System	3
36	Reactor Coolant System (RC)	4
38	DC & Emergency AC Electrical Dist. System (EDC)	12
39	4160V Electrical Supply & Distribution System (EHV)	2
40	480VAC Electrical Distribution System (ELV)	7
42	Diesel Generator Electrical (DGE)	1
47	Rx Protection & Rx Coolant Temp Instrument (RCP)	1
48	Nuclear Instrumentation System (NI)	2
49	Rod Control & Rod Position Indication (CRD)	2
55	Engineered Safety Features (ESF)	1
N/A	No System	4
	TOTAL	104

Appendix B.3
Area Walk-by List

Area Walk-by List			
Area Walk-by ID	Building	Elevation	Additional Descriptor
KW-WB-001	Turbine	586	Safeguard Alley--"A" Switchgear
KW-WB-002	Turbine	586	Safeguard Alley--"A" AFW Pump Room
KW-WB-003	Admin	586	"A" Diesel Generator Room
KW-WB-004	Admin	586	"A" Diesel Generator Day Tank Room
KW-WB-005	Screenhouse	586	"A" Service Water Pump Area east of "A" CW Pit
KW-WB-006	Screenhouse	569	East-Central Lower Screenhouse
KW-WB-007	Aux	586	Inside RWST Shield Structure
KW-WB-008	Aux	586	Internal Containment Spray Pump Area
KW-WB-009	Aux	586	SI Pump Area
KW-WB-010	Aux	586	Charging Pump Room
KW-WB-011	Aux	586	MCC52E Area
KW-WB-012	Aux	568	RHR Pump 1B Pit
KW-WB-013	Turbine	586	Safeguard Alley--TDAFW Pump Room
KW-WB-014	Admin	586	EDG Storage Tank 1A Pump Vault
KW-WB-015	Turbine	606	"A" Battery Room
KW-WB-016	Aux	606	CCW Heat Exchanger Area
KW-WB-017	Aux	606	CCW 1A Pump Area
KW-WB-018	Aux	606	MCC52B Hallway north to stairwell
KW-WB-019	Aux	606	Relay Room
KW-WB-020	Aux	618	"A" MSIV Area
KW-WB-021	Aux	622	SFP HX Area
KW-WB-022	Aux	626	Control Room
KW-WB-023	Aux	626	Control Rod Drive Room
KW-WB-024	Aux	642	Control Room Air Conditioning Room
KW-WB-025	Aux	642	Shield Bldg Filter Floor (west half)
KW-WB-026	Aux	606	RHR Heat Exchanger Room
KW-WB-027	Aux	606	RCA West of Door 63, 84018 Area
KW-WB-028	Admin	586	Tunnel Area Between Doors 1 & 2
KW-WB-029	Aux	657	Aux Bldg Fan Floor Southeast Corner
KW-WB-030	Aux	606	Steam Generator Blowdown Tank Area
KW-WB-031	Aux	586	East of Sludge Interceptor Filters
KW-WB-032	Aux	586	North of Door 264
KW-WB-033	Aux	606	Demineralizer Room (FPC-204 Area)
KW-WB-034*	Cont	586	Below 'A' RCP Vault (RHR-1A Area)
KW-WB-035*	Cont	586	PRT Area

Area Walk-by List			
Area Walk-by ID	Building	Elevation	Additional Descriptor
KW-WB-036*	Cont	606	'B' Accumulator Area
KW-WB-037*	Cont	606	'A' Accumulator Area
KW-WB-038*	Cont	618	'A' Cold Leg Return Vault Area
KW-WB-039*	Cont	626	Cont Fan Coil 'A' Area
KW-WB-040*	Cont	649	Cont Fan Coil 'A' Discharge Damper Area
KW-WB-041*	Admin	586	"B" Diesel Generator Room

* Area walk-by not completed. Associated SWEL items inaccessible during normal plant operations.

Appendix C
Seismic Walkdown Checklists

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-005

AWC # KW-WB-001

Status Y N U

Equipment ID No. BUS51 Equip. Class 2

Equipment Description 480V SWITCHGEAR BUS 51

Location: Bldg. TURB Floor El. 586 Room, Area ADMIN BLDG BSMNT

Manufacturer, Model, Etc. (optional but recommended) ALLIS-CHALMERS CO, LA

Instructions for Completing Checklist

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Lower right hand cubicle on front side of bus was missing 1 anchor bolt, SEWS Form indicates that it was evaluated.

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-005

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

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/10/12

Evaluated by: Tim Wattleworth *[Signature]* for T. Wattleworth Date: 9/12/2012

Evaluated by: Daniel J. Vasquez *[Signature]* Date: 9/12/2012

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-005

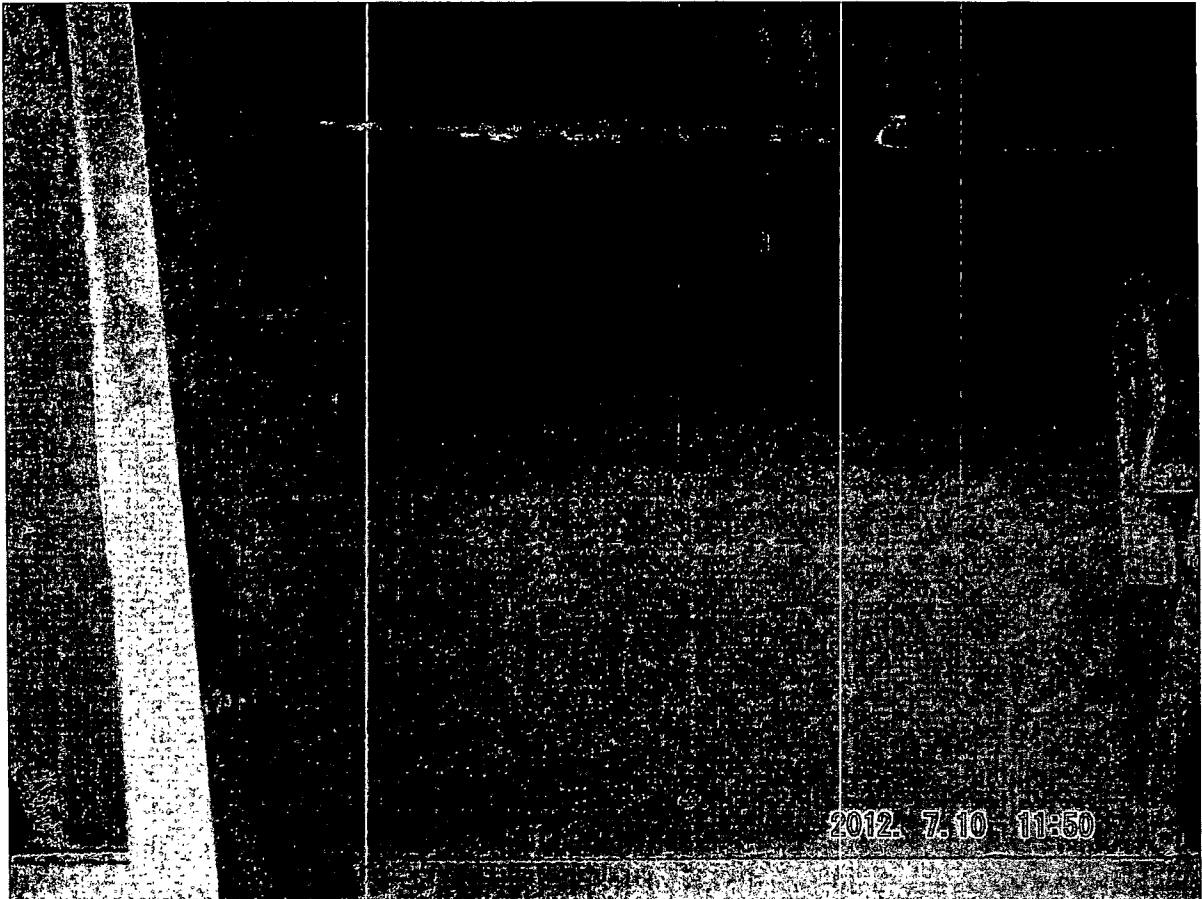
Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-005

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-005

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-009

AWC # KW-WB-001

Status Y N U

Equipment ID No. XFMR51 Equip. Class 4

Equipment Description STATION SERVICE TRANSFORMER 51

Location: Bldg. TURB Floor El. 586 Room, Area TURBINE BLDG BSMNT

Manufacturer, Model, Etc. (optional but recommended) ALLIS-CHALMERS CO, 750/1000KVA

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-009

Interaction Effects

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

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

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

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

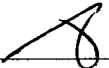
Other Adverse Conditions

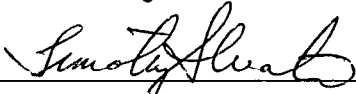
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Comments (Additional pages may be added as necessary)

Anchorage includes welding of frame to embed channel per S-804.

Field Walkdown 7/10/12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Evaluated by: Tim Wattleworth  Date: 7-19-12

Seismic Walkdown Checklist (SWC)

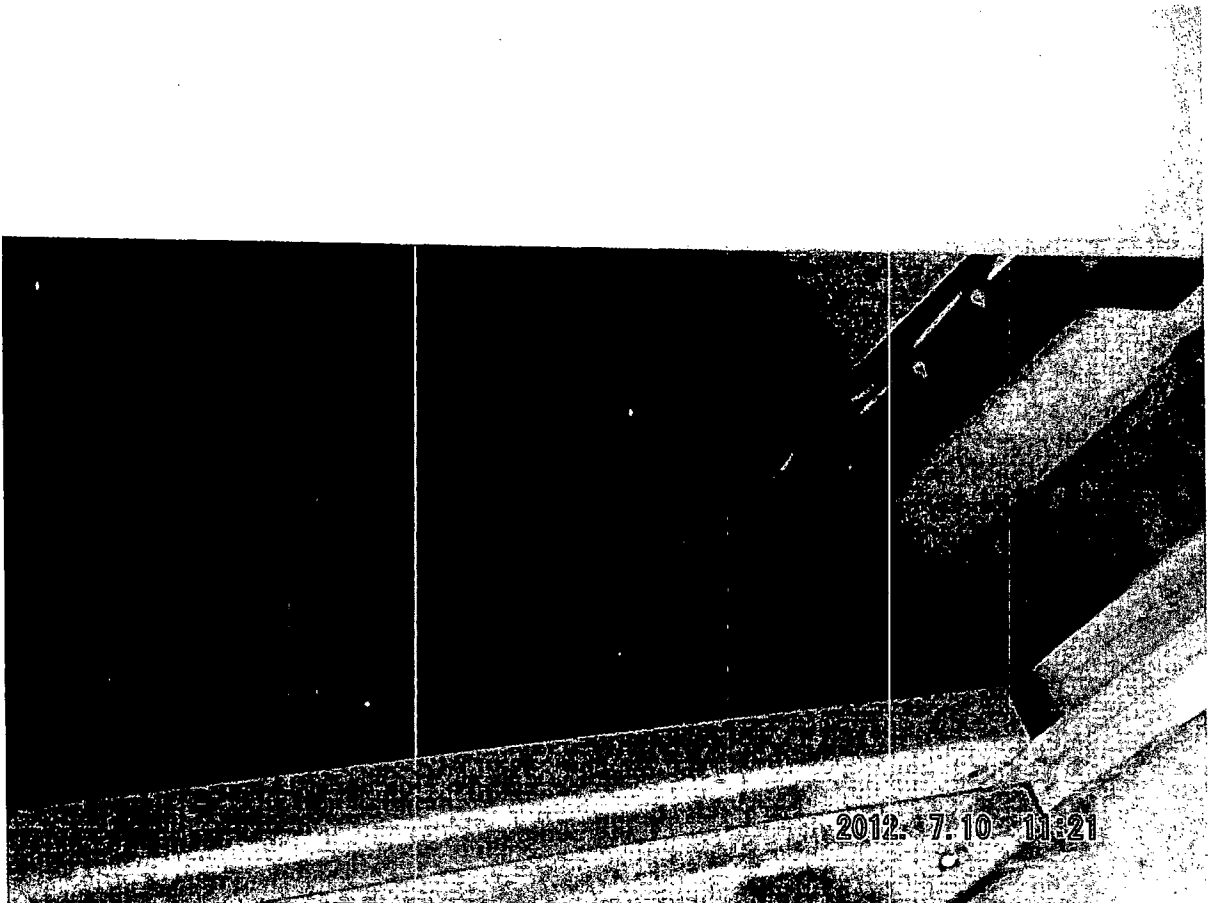
SWC # KW-WD-SWEL-009

Comments (continuation page)



SWC # KW-WD-SWEL-009

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-010

AWC # KW-WB-001

Status Y N U

Equipment ID No. XFMR52 Equip. Class 4

Equipment Description STATION SERVICE TRANSFORMER 52

Location: Bldg. TURB Floor El. 586 Room, Area TURBINE BLDG BSMNT

Manufacturer, Model, Etc. (optional but recommended) ALLIS-CHALMERSCO, 750/1000KVA

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-010

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Review adequacy of airline above cabinet from SA-71; not a seismic challenge.
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
S-clips supporting lighting are crimped closed.
- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

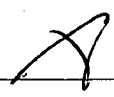
- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Comments (Additional pages may be added as necessary)

Transformer Base support is welded to Base Channel per ESR 93-045 and S-804.

Field Walkdown 7/10/12.

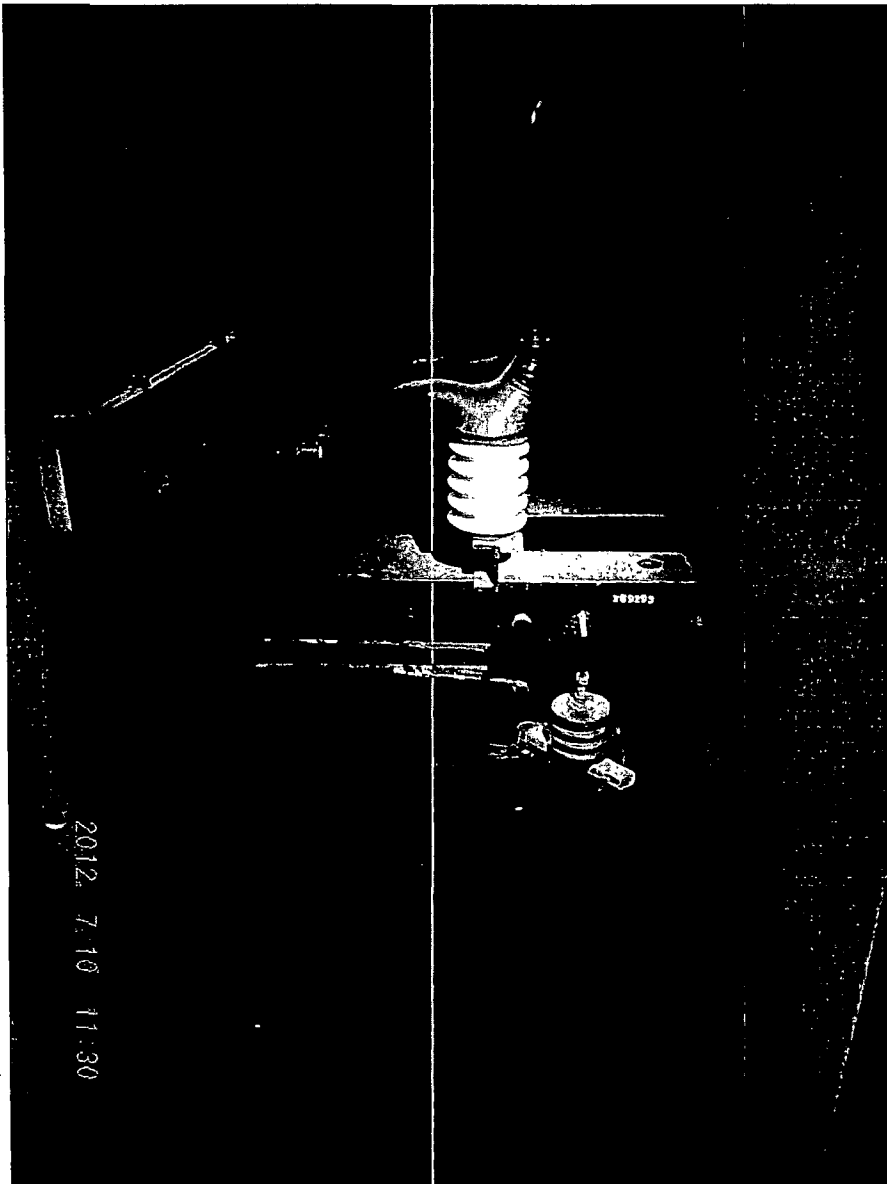
Evaluated by: Tim Wattleworth  Date: 7-19-12

Evaluated by: Daniel J. Vasquez  Date: 7/3/12

Seismic Walkdown Checklist (SWC)

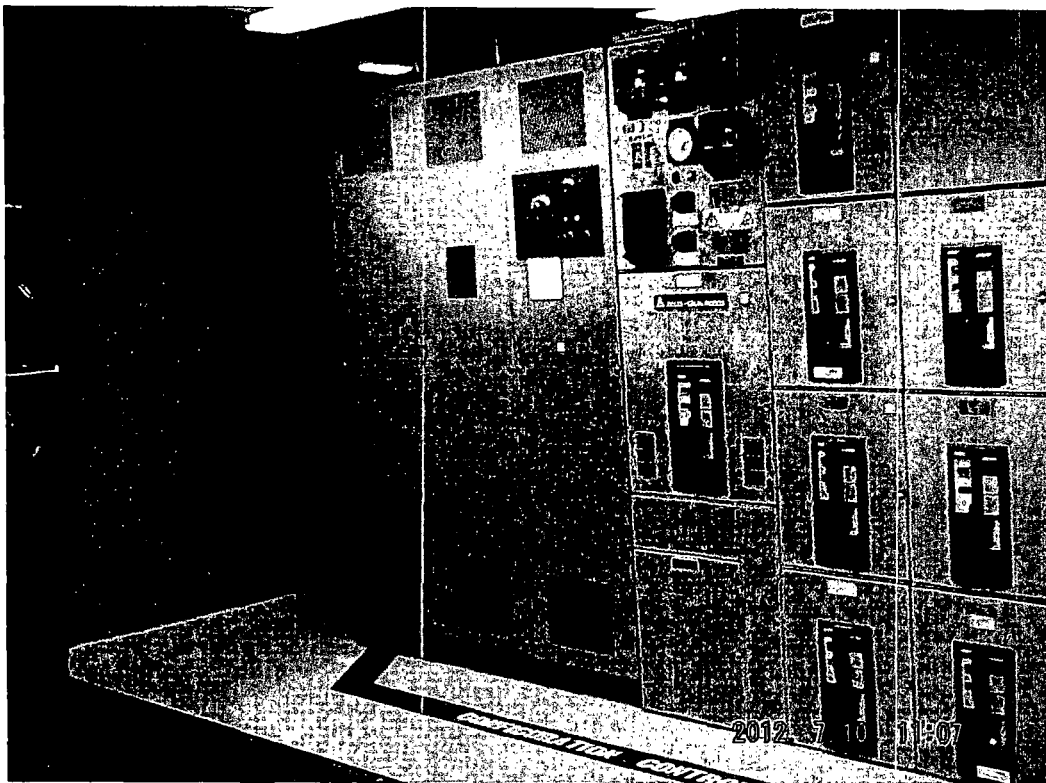
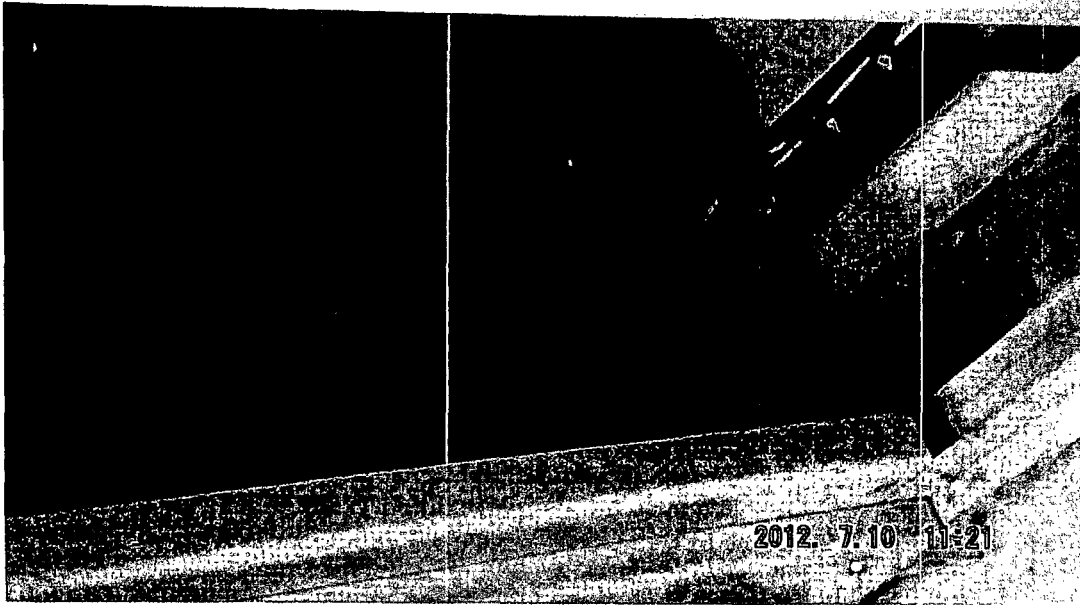
SWC # KW-WD-SWEL-010

Comments (continuation page)



SWC # KW-WD-SWEL-010

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-011

AWC # KW-WB-010

Status Y N U

Equipment ID No. 145-101 Equip. Class 5

Equipment Description CHARGING PUMP 1A

Location: Bldg. AUX Floor El. 586 Room, Area CHARGING PUMP ROOM GATE 208

Manufacturer, Model, Etc. (optional but recommended) AJAX IRON WORKS, T-150-PS TYPE

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation?
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Reference SEWS, Drawing S-309, S-310, and S-379 Y N U N/A

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-011

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/12/12

Evaluated by: Ellery Baker *Ellery Baker* Date: 7/12/12

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-012**AWC #** KW-WB-017Status Y N U Equipment ID No. 145-151 Equip. Class 5Equipment Description COMPONENT COOLING PUMP 1ALocation: Bldg. AUX Floor El. 606 Room, Area AUX BLDG MEZZManufacturer, Model, Etc. (optional but recommended) FLOWSERVE CORP, 8X18SE**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-012

Interaction Effects

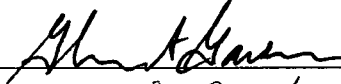
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
See Comment below.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

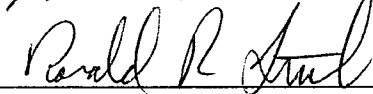
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Light fixture above pump motor is not well secured. One of four chains is not attached. The S hooks are not closed. Fixture has three chains to ceiling and therefore not expected to fall on pump motor during design basis earthquake because fixture would swing and hit wall if the single chain failed. CR written to initiate maintenance: CR 481243.

Evaluated by: Glenn Gardner  Date: 7/13/12

Evaluated by: Ronald R. Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-012

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-013AWC # KW-WB-005Status Y N U Equipment ID No. 145-441 Equip. Class 6Equipment Description SERVICE WATER PUMP 1A1Location: Bldg. SCRNHSE Floor El. 586 Room, Area TURBINE BLDG SCREENHOUSEManufacturer, Model, Etc. (optional but recommended) FLOWSERVE, 14X18QL**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-013

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
See notes 2 & 4

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

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

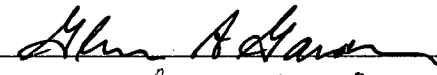
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

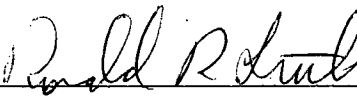
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

- (1) *Surface of floor concrete uncoated on east side; non-structural.*
- (2) *Tubing for SW-11007 Valve ~1/2" clear from platform. Platform is rigid: no interaction, see note 4.*
- (3) *Instrument stand is missing bolt & nut: previously identified on CR #463919.*
- (4) *Platform anchor foot missing anchor bolt on SW corner (no tag): CR #481190*
- (5) *Overhead (roof) vent damper has grating above damper supported at edges by steel but fasteners not visible. See area walk-by for room for further comment since the damper components should prevent vertical drop onto pump. NOTE: Subsequent observation with binoculars reveals that the grating is secured by welds; the condition is acceptable*

Evaluated by: Glenn Gardner  Date: 7/13/12

Evaluated by: Ronald Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-014**AWC #** KW-WB-014Status Y N U Equipment ID No. 145-541 Equip. Class 6Equipment Description EDG FUEL OIL TRANSFER PUMP 1ALocation: Bldg. ADMIN Floor El. 586 Room, Area ADMIN BLDG BSMNTManufacturer, Model, Etc. (optional but recommended) REDA PUMP CO. G443D35P-5**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-014

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Cover plate support beam overhead has robust welded and anchored support points.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Flex conduit and flex hoses are present.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Evaluated by: ELLERY BAKER *Ellery Baker* Date: 7/9/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-014

Comments (continuation page)

Field Walkdown 7/9/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-015

Page i of 3

AWC # KW-WB-012

Status Y N U

Equipment ID No. 145-142 Equip. Class 6

Equipment Description RHR PUMP 1B

Location: Bldg. AUX Floor El. 568 Room, Area SUMP PUMP PIT

Manufacturer, Model, Etc. (optional but recommended) BYRON JACKSON PUP DIV - BORG WAGNER
IND V-DSM 6X10X18

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Ref. Dwg. S-311 & S-379
Note: Grout pad shown on Detail 36-36 and Section 35-35 of drawing S-311 is not there. This has no impact on the structural capacity as the base plate is inset into the concrete equipment foundation. Y N U N/A

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-015

Page 2 of 3

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
A 6.5 ft (approximately) tall light metal tripod with mirror is not secured and would likely fall in a seismic event. Most susceptible target is 3/8" tubing. It was judged by the review team that the light weight mirror and stand would not damage the tubing or any other SSCs in the area. Review team estimated that the stand and mirror weigh approximately 10 lbs.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Adjacent RHR fan coil unit 1B is well anchored.

Comments (Additional pages may be added as necessary)

CAP was reviewed and no previous mention of the mirror stand could be located. As discussed above, review team concluded it did not damage the tubing or any other SSC in the area in a seismic event.

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/3/12

Evaluated by: Ron Little *Ronald R. Little* Date: 7/3/12

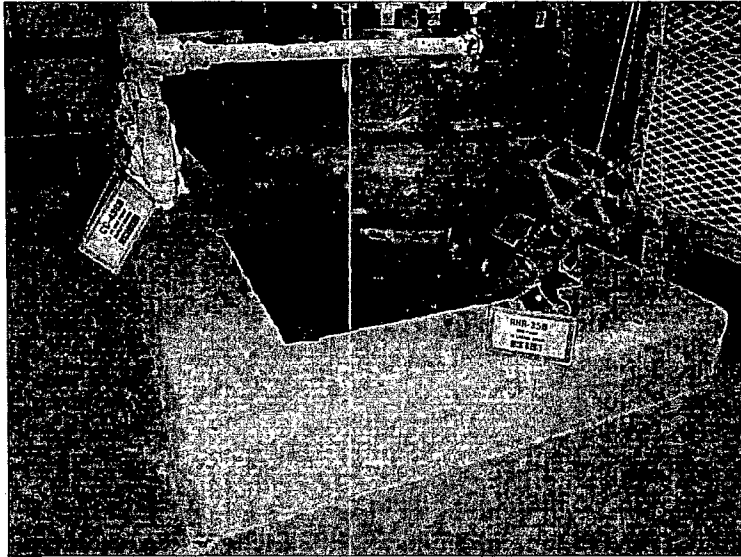
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-015

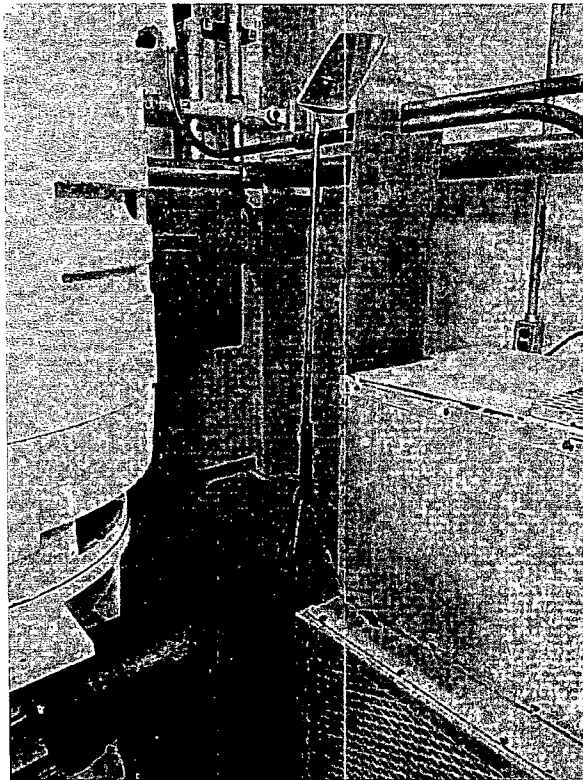
Page 3 of 3

Comments (continuation page)

Photos:



RHR Pump 1B Equipment Foundation



Light Weight Mirror on Tripod

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-016AWC # KW-WB-006Status Y N U Equipment ID No. 31038/SW3A Equip. Class 7Equipment Description SERVICE WATER HEADER ISOLATIONLocation: Bldg. SCRNHSE Floor El. 569 Room, Area SCREENHOUSE & TUNNELManufacturer, Model, Etc. (optional but recommended) BETTIS CORP, 1074SR**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-016

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Approximately 1" between 1/2" copper line to SW-3A and end of unistrut. However main SW line has a lateral strut preventing sway of line and this 1/2" copper line. Therefore, there is no adverse seismic interaction.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Missing 1 of 4 bolts on ceiling baseplate for blue chemical injection line < 1 1/2" diameter. However other base plate w/ 4 bolts is satisfactory and small mass of 1 1/2" line will not impose large loads, and baseplates on adjacent plates are satisfactory, so this condition will not generate a seismic interaction. See CR481388.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Copper air tubing to SW-3A supported by raceway attached to SW-3B. However both valves are on same line so no physical shake space exists between two valves.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

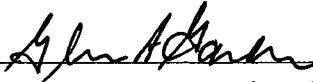
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-016

Comments (Additional pages may be added as necessary)

Evaluated by: Glenn Gardner



Date: 7/12/12

Evaluated by: Ronald R. Little



Date: 7/12/12

Seismic Walkdown Checklist (SWC)

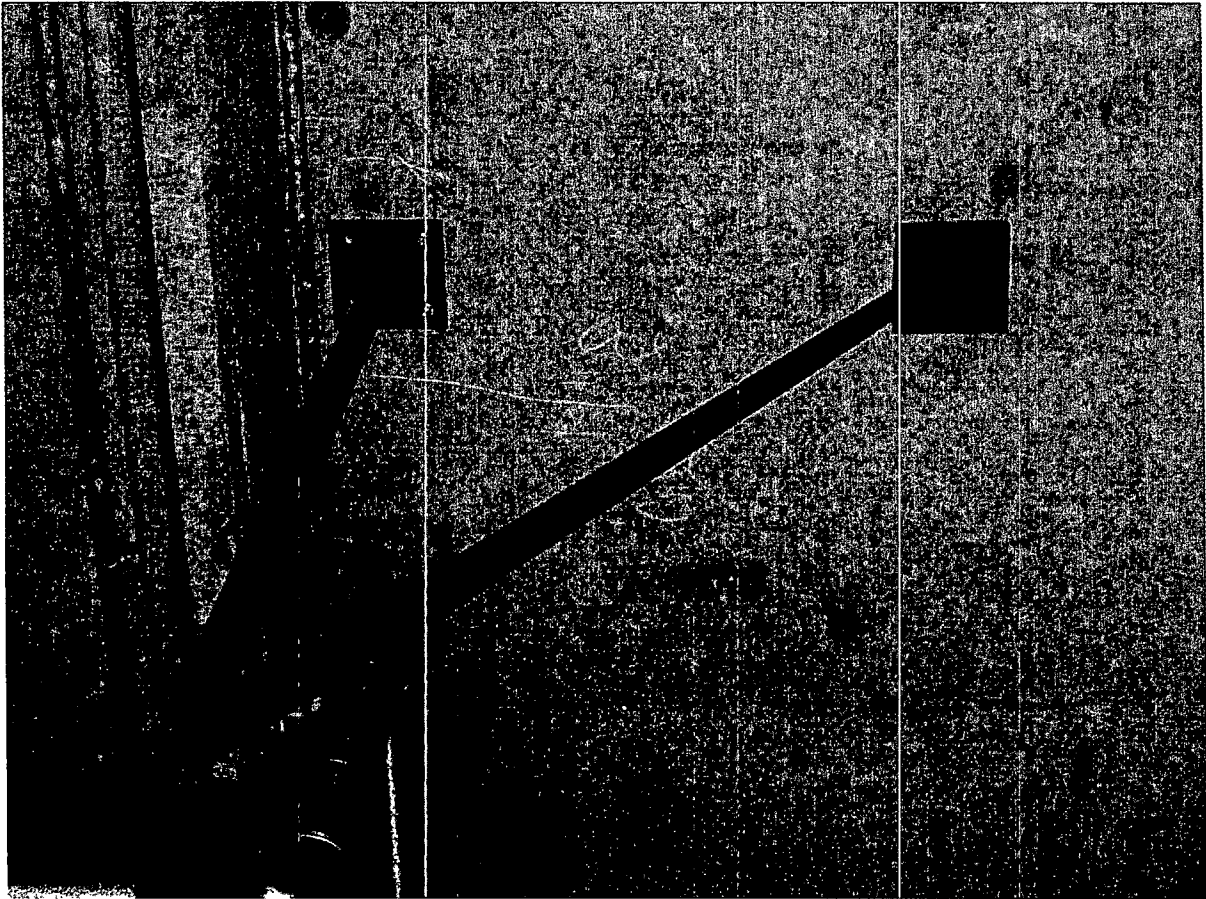
SWC # KW-WD-SWEL-016

Comments (continuation page)

None.

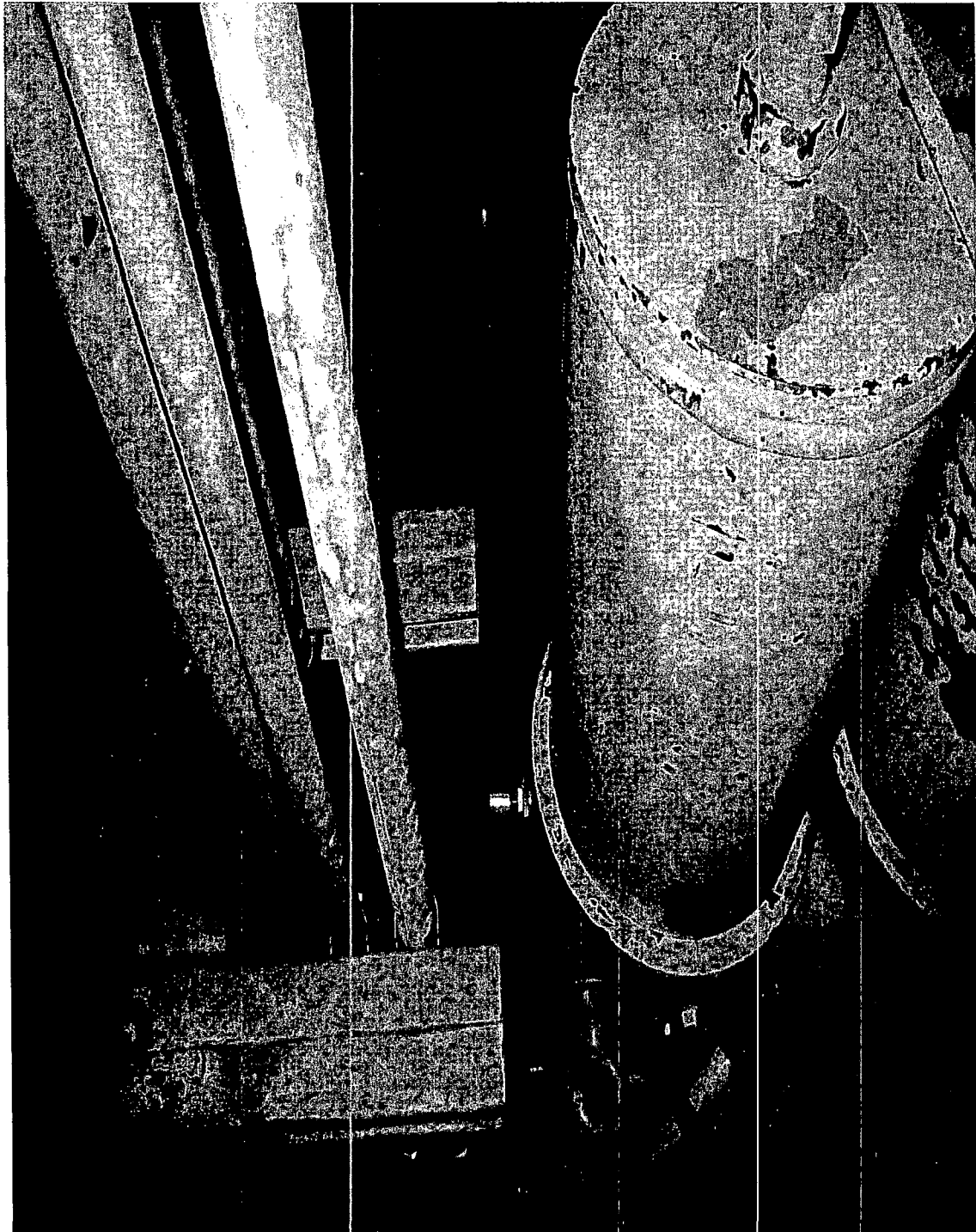
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-016



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-016



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-017

AWC # KW-WB-003

Status Y N U

Equipment ID No. 101-027 Equip. Class 7

Equipment Description SW TURB BLDG HDR 1A CV (SW-4A ACCUMULATOR)

Location: Bldg. ADMIN Floor El. 586 Room, Area ADMIN BLDG BSMNT

Manufacturer, Model, Etc. (optional but recommended) N/A, NF

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-017

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Tim Corbin Terry P. Corbin Date: 7/13/12

Evaluated by: ELLERY BAKER Ellery Baker Date: 7/12/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-017

Comments (continuation page)

Field Walkdown 7/9/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-018AWC # KW-WB-020Status Y N U Equipment ID No. 31015/MS1A Equip. Class 7Equipment Description CHECK VALVE MS ISOL VALVE GEN 1ALocation: Bldg. AUX Floor El. 618 Room, Area ADMIN BLDG MEZZManufacturer, Model, Etc. (optional but recommended) SCHUTTE & KOERTING CO, 69-XA-26**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-018

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

Interaction Effects

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

See Note 1 below

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)**Note 1:**

The overhead drain piping has victaulic couplings. This piping has sufficient rod hangers that if joints separate, the piping will remain attached to hangers and will not impact equipment.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-018

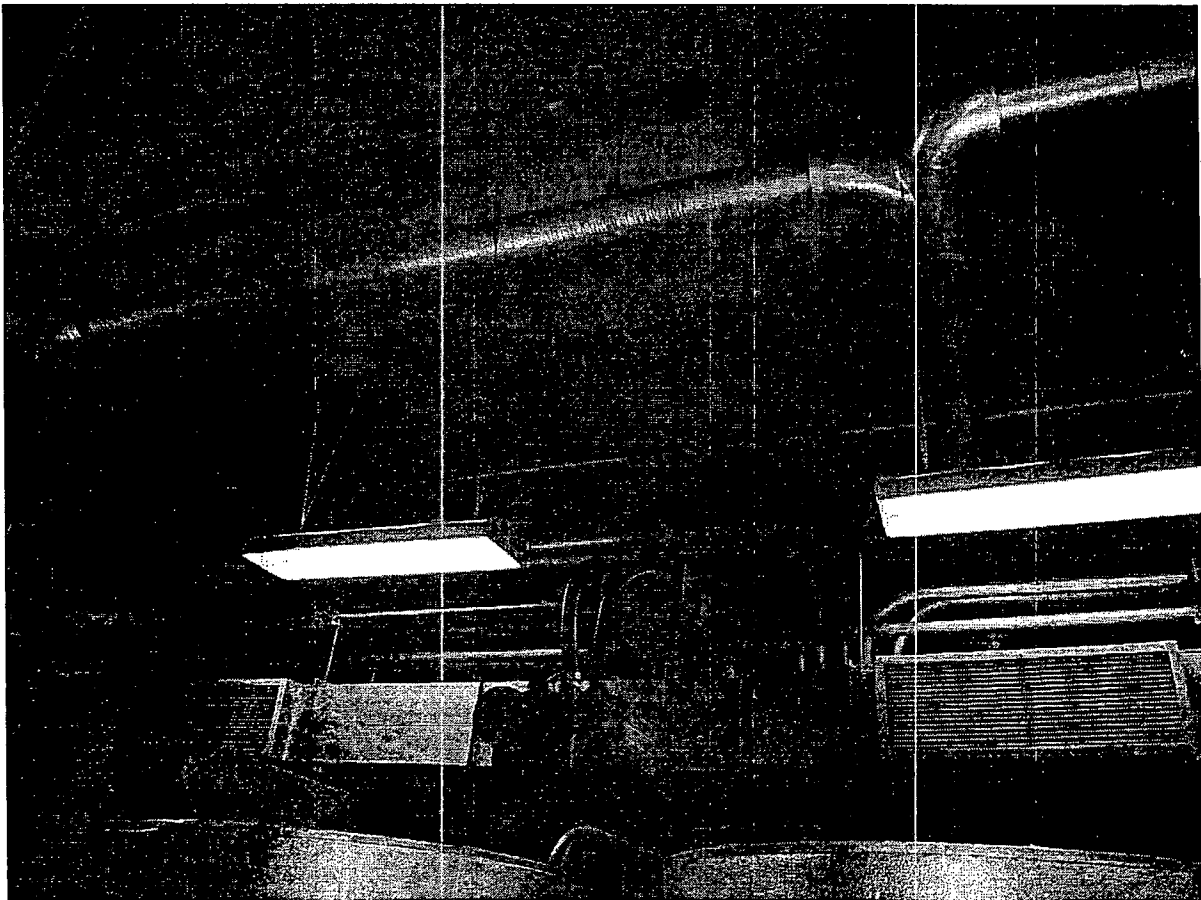
Evaluated by: Ronal R. Little *Ronald R Little* Date: 7/13/12

Evaluated by: Glen Gardner *Glen A Gardner* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-018

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-019

AWC # KW-WB-020

Status Y N U

Equipment ID No. 31170/SD3A Equip. Class 7

Equipment Description MS CONTROLLED RELIEF STEAM HDR 1A

Location: Bldg. AUX Floor El. 626 Room, Area ADMIN BLDG MEZZ

Manufacturer, Model, Etc. (optional but recommended) FISHER CONTROLS INTERNATIONAL INC.
476D-5 SIZE 130,3570 POSITIONER

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-019

Interaction Effects

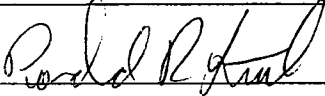
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
There is a drain pipe with Victaulic couplings at the west end of room. No interaction with SD-3A is expected as piping is not directly above valve.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Threaded rod hanger MSRH-H2 is bent. This has insignificant impact on the integrity of the hanger.

Comments (Additional pages may be added as necessary)

The overhead lighting fixture support chains have S-hooks that are not pinched closed. This is not a seismic concern as there are four chains supporting the fixture. It is not expected that the light fixture would move enough to disconnect the chains given the support configuration.

Evaluated by: Ron Little  Date: 7/13/12

Evaluated by: Glenn Gardner  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-020

AWC # KW-WB-010

Status Y N U

Equipment ID No. 31688/CVC200 Equip. Class 7

Equipment Description SEAL WTR INJECTION BYPASS BLOCK CV

Location: Bldg. AUX Floor El. 586 Room, Area CHARGING PUMP ROOM

Manufacturer, Model, Etc. (optional but recommended) COPEES-VULCAN, D-100-400/179711

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-020

Interaction Effects

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

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

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


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


Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

As mentioned in KW-Report-SEW-31688/CVC200, valve was noted as a possible interaction hazard to charging pump B (145-102) but evaluation found the valve and pipe to be satisfactory.

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/13/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-022AWC # KW-WB-020Status Y N U Equipment ID No. 32007/MS2A Equip. Class 8Equipment Description S/A A MSIV BYPASS VALVELocation: Bldg. AUX Floor El. 618 Room, Area ADMIN BLDG MEZZManufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-022

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

Interaction Effects

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

See Note 1 in Comments Section on page 3.

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

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

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

Other Adverse Conditions

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


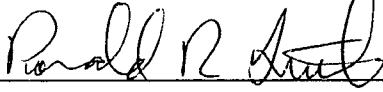
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-022

Comments (Additional pages may be added as necessary)

Note 1:

Victaulic jointed roof drain piping above (see picture on page 4). This piping has sufficient rod hangers that if joints separate, the piping will remain attached to hangers and will not impact the equipment.

Evaluated by: Glen Gardner  Date: 7/13/12
Evaluated by: Ronald R. Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-022

Comments (continuation page)



Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-023AWC # KW-WB-016Status Y N U Equipment ID No. 32009/SW1300A Equip. Class 8Equipment Description CCW HX 1A OUTLETLocation: Bldg. AUX Floor El. 606 Room, Area AUX BLDG MEZZManufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-023

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Bonnet to yoke bolts are in good condition.

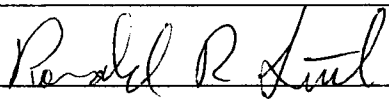
Interaction Effects


7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ronald Little  Date: 7/13/12

Evaluated by: Glenn Gardner  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024

AWC # KW-WB-003

Status Y N U

Equipment ID No. 32011/SW10A Equip. Class 8

Equipment Description AUX BLDG SW HEADER A ISOLATION

Location: Bldg. ADMIN Floor El. 586 Room, Area ADMIN BLDG BSMNT

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, HBC-SMB-000

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024

Interaction Effects

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

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Light directly above SW-10A-7 Power cord has hooks to attach to chain, but they are not engaged. No seismic concern. CR and WO. CR 481185.

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

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

Other Adverse Conditions

- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Tool rack east of SW-10A has several straight "pegs" that do not provide positive restraint of tools. No interaction concerns identified. CR and WO. CR 481180.

Comments (Additional pages may be added as necessary)

Two Emergency Lighting Battery Packs are strapped down by rubber bungee cord. Appears to be typical installation. IPEEE outlier resolution stated that various battery units were strapped to supports during 1994 RFO. Straps are inspected and replaced as needed via PMP-41-06, step 4.1.2.

Evaluated by: ELLERY BAKER *Ellery Baker* Date: 7/9/12

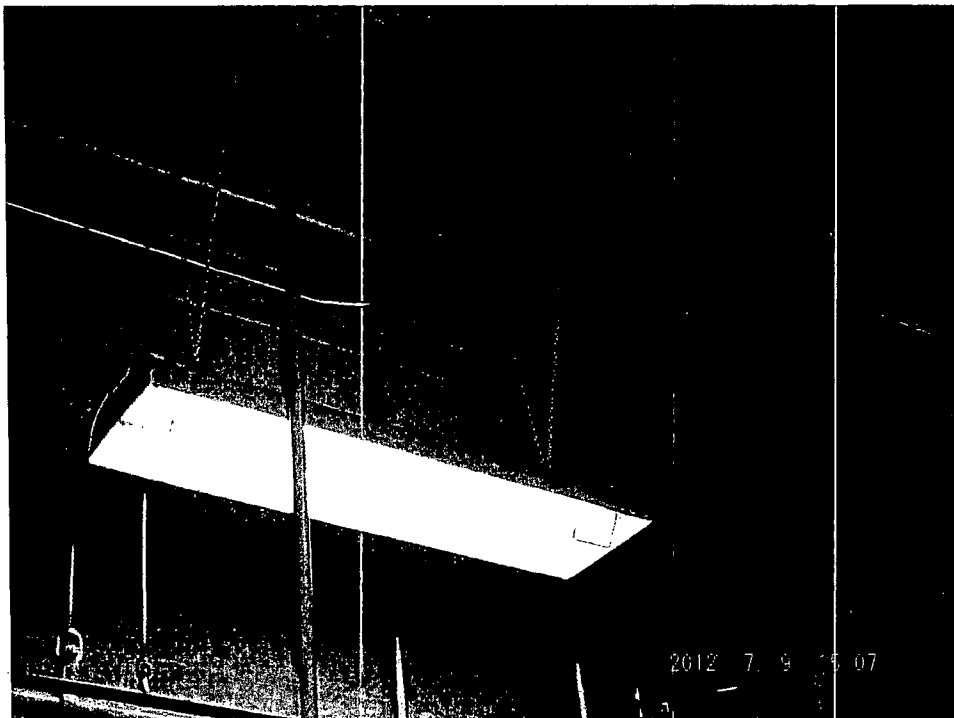
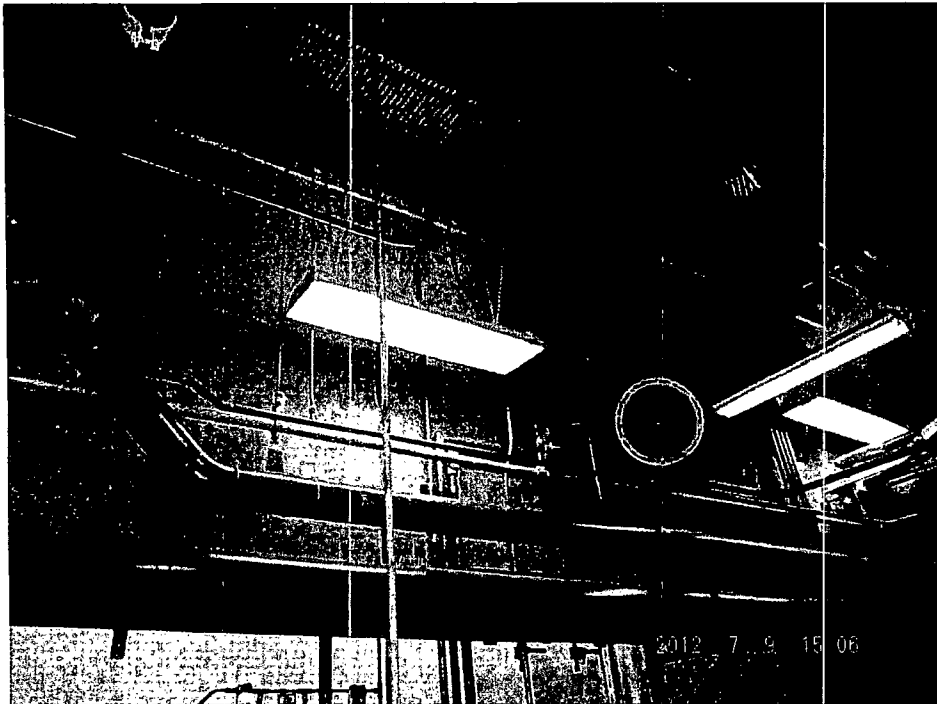
Evaluated by: Tim Corbin *Tim Corbin* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024

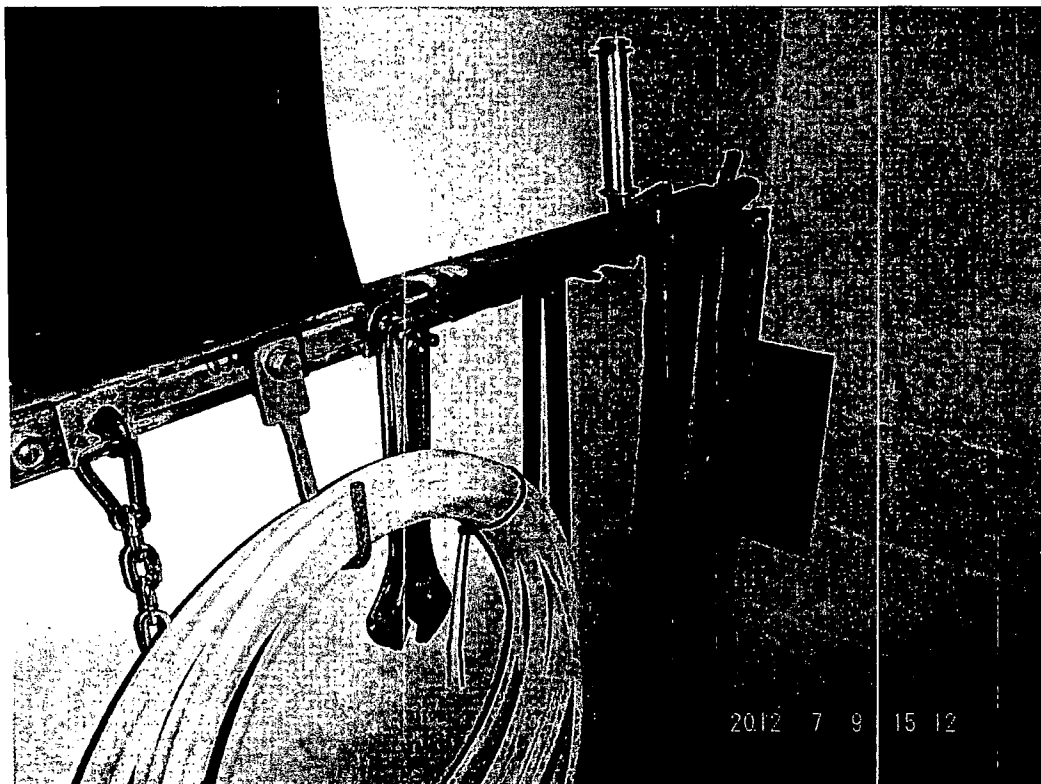
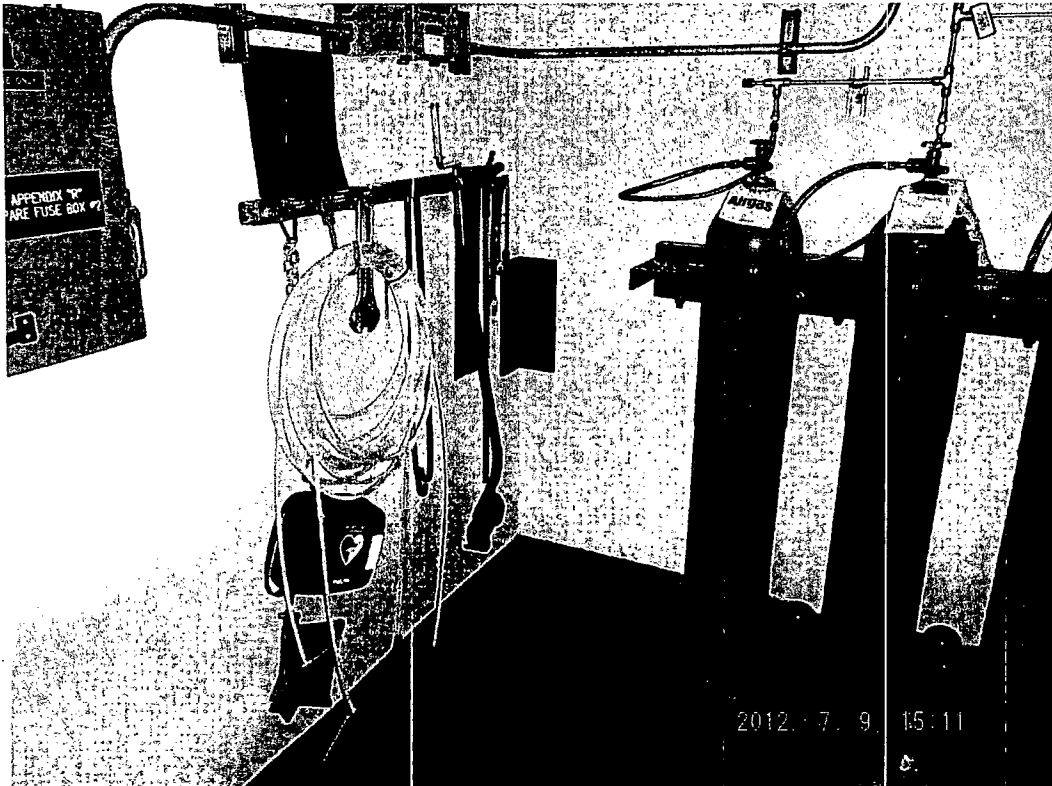
Comments (continuation page)

Field Walkdown 7/9/12



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024



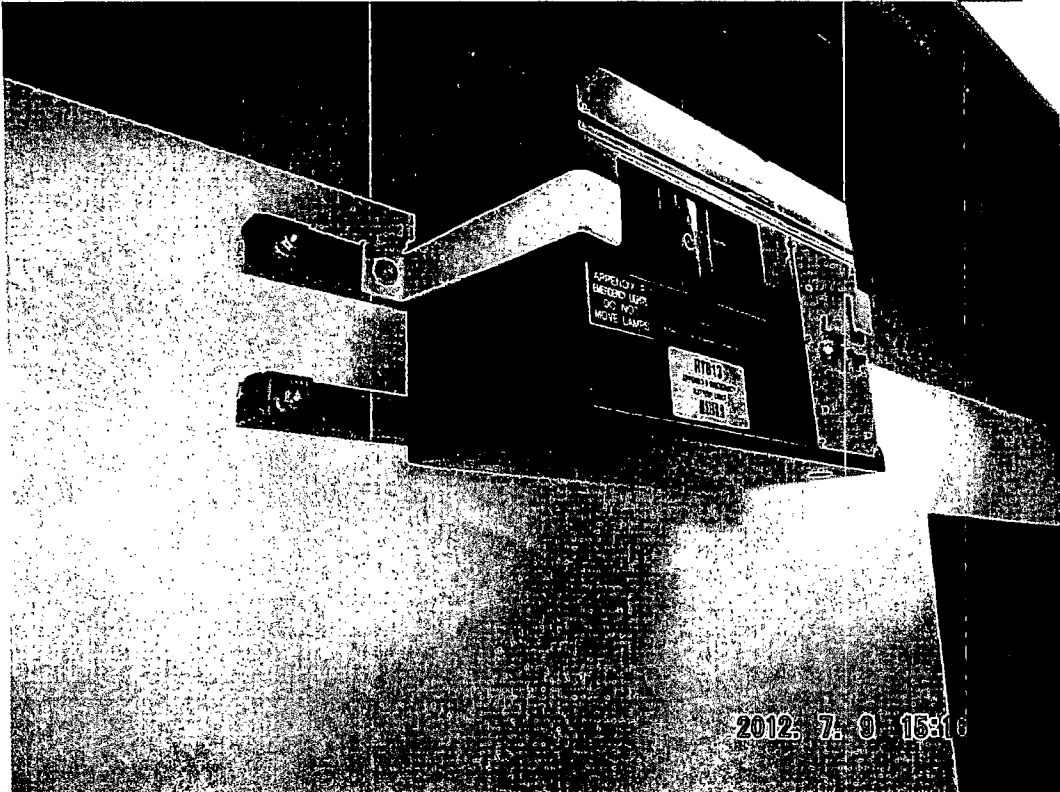
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-024



SWC # KW-WD-SWEL-024

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-025**AWC #** KW-WB-002Status Y N U Equipment ID No. 32027/AFW10A Equip. Class 8Equipment Description TDAFWP TO S/G ALocation: Bldg. TURBINE Floor El. 586' Room, Area TURBINE BLDG BSMNTManufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-000-1900**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-025

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ellery Baker

Ellery Baker

Date:

7/12/12

Evaluated by: Tim Corbin

Tim Corbin

Date:

7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-025

Comments (continuation page)

Field Walkdown 7/12/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-026AWC # KW-WB-020Status Y N UEquipment ID No. 32038/MS100A Equip. Class 8Equipment Description S/G A STM SPLY to TDAFW PumpLocation: Bldg. AUX Floor El. 618 Room, Area 5S.5/M.1Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-000**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-026

Interaction Effects

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

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

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

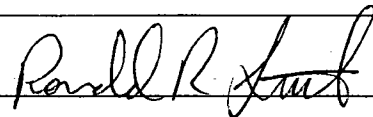
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

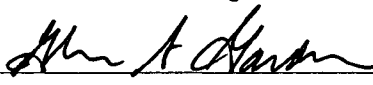
Other Adverse Conditions

- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Minor corrosion on nearby support bracket for tubing and blue protective box has insignificant effect the integrity of the support. It will not have an adverse effect on equipment.

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Ronald R. Little  Date: 7/13/12

Evaluated by: Glenn Gardner  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-027

AWC # KW-WB-041

Status Y N U

Equipment ID No. 32040/MS102 Equip. Class 8

Equipment Description TDAFW Pump Main Steam Isolation

Location: Bldg. Turbine Floor El. 586 Room, Area 00-8.9/D.8

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP. SMB-000

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-027

Interaction Effects

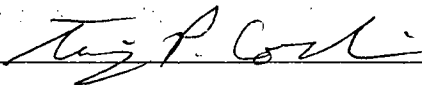
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

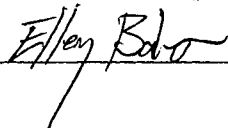
Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin



Date: 7/13/12

Evaluated by: Ellery Baker



Date: 7/12/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-027

Comments (continuation page)

Field Walkdown 7/12/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-028

AWC # KW-WB-010

Status Y N U

Equipment ID No. 32056/CVC301 Equip. Class 8

Equipment Description RWST Supply to Charging Pumps

Location: Bldg. AUX Floor El. 586 Room, Area 00-6.1/HW.0

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SB-00 LIMITORQUE

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-028

Interaction Effects

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

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

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

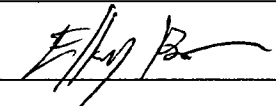
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

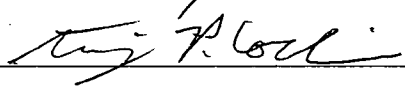
Other Adverse Conditions

- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
*Support CVC-H175 immediately adjacent to valve is constructed for installation of U-bolt over associated piping, but one is not installed.
 Action: Confirmed on drawing MS-35-226 that there should not be a U-bolt on this support.*

Comments (Additional pages may be added as necessary)

None.

Evaluated by: ELLERY BAKER  Date: 7/12/12

Evaluated by: Tim Corbin  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-028

Comments (continuation page)

Field Walkdown 7/12/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-029

AWC # KW-WB-008

Status Y N U

Equipment ID No. 32066/ICS5A Equip. Class 8

Equipment Description CNTMT Spray PMP A DISCH ISOL

Location: Bldg. AUX Floor El. 586 Room, Area 02-5.7/GW.1

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-1 SEE TECH INFO

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-029

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Flex conduit for MV-32067 may impact manual operation lever on MV-32066, which is not a soft target and conduit would not damage or inhibit operation of valve.

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

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

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

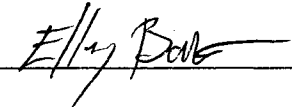
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-029

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-030AWC # KW-WB-030Status Y N U Equipment ID No. 32078/BT3A Equip. Class 8Equipment Description S/G A Blowdown Isolation Valve A2Location: Bldg. AUX Floor El. 606 Room, Area 2.4/JJ.8Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-000-SEE TECH INFO**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-030

Interaction Effects

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

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
The area block walls need to be evaluated for seismic integrity because of adjacent safety related equipment. See not in area walkdown KW-WB-030, which determined this is acceptable.

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Ronald R. Little *Ronald R Little* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-030

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-031

AWC # KW-WB-009

Status Y N U

Equipment ID No. 32107/SI5A Equip. Class 8

Equipment Description SI Pump A Suction Isolation

Location: Bldg. AUX Floor El. 585 Room, Area 5.5/H.6

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00-SEE TECH INFO

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-031

Interaction Effects

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

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

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

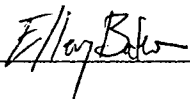
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions

- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
*Rod hanger to SI-H14 in direct contact with ≈ 1" CC line in overhead:
 No signs of wear on either component. No seismic interaction concerns due to flexibility of rod and mounting of line.*

Comments (Additional pages may be added as necessary)

Spring hanger directly under valve has base plate jamb nut lacking full engagement. No concern considering it is not the load nut.

Evaluated by: Ellery Baker  Date: 7/19/12

Evaluated by: Tim Corbin  Date: 7/12/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-031

Comments (continuation page)

Field Walkdown 7/10/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-032

AWC # KW-WB-009

Status Y N U

Equipment ID No. 32109/SI4A Equip. Class 8

Equipment Description RWST Supply SI Pumps

Location: Bldg. AUX Floor El. 586 Room, Area 00-5.9/HW.7

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-0-SEE TECH INFO

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-032

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ronald R. Little *Ronald R Little* Date: 7/13/12

Evaluated by: Daniel J. Vasquez *D* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-032

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-034

AWC # KW-WB-016

Status Y N U

Equipment ID No. 32121/CC6A Equip. Class 8

Equipment Description CC HX B Outlet

Location: Bldg. AUX Floor El. 606 Room, Area 00-8.8/J.6

Manufacturer, Model, Etc. (optional but recommended) LMITORQUE CORP, SMB-500- SEE TECH INFO

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-034

Interaction Effects

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

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

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

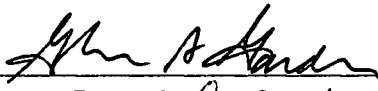
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

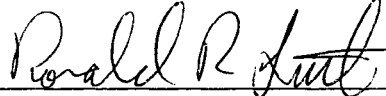
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Sufficient overhead access to determine no interactions.

Evaluated by: Glen Gardner  Date: 7/17/12

Evaluated by: Ronald R. Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-034

Comments (Additional pages may be added as necessary)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-035AWC # KW-WB-009Status Y N U Equipment ID No. 32131/SI208 Equip. Class 8Equipment Description SI Recirculation to RWSTLocation: Bldg. AUX Floor El. 586 Room, Area 00-5.4/H.7Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00-SEE TECH INFO**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-035

Interaction Effects

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

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

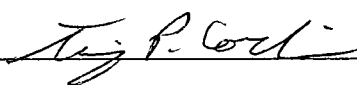
- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A


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

Other Adverse Conditions

- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Cold joint (tight crack) in concrete wall runs about 1 3/4" above lower anchor bolts for support SI-H47. No anchorage capacity concerns.

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/10/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-035

Comments (continuation page)

Field Walkdown 7/10/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-036AWC # KW-WB-002Status Y N UEquipment ID No. 32416/AFW2A Equip. Class 8Equipment Description AFWP A Flow Control ValveLocation: Bldg. Turbine Floor El. 586 Room, Area 06-E.7-8.4Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00-5-1700**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-036

Interaction Effects

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

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

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

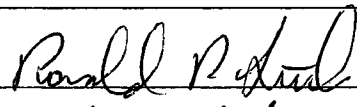
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

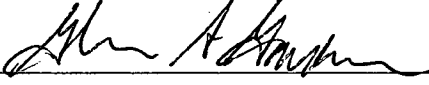
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Ronald R. Little  Date: 7/12/12

Evaluated by: Glenn Gardner  Date: 7/12/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-036

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-037

AWC # KW-WB-002

Status Y N U

Equipment ID No. 32418/AFW201A Equip. Class 8

Equipment Description AFWP 1A to X-Connect S/G B

Location: Bldg. Turbine Floor El. 586 Room, Area 10-E.8-8.9

Manufacturer, Model, Etc. (optional but recommended) LIMITORQUE CORP, SMB-00-5-1700

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-037

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Nearby protected equipment barrier stations are not a concern because they are light weight and have low center of gravity.

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

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

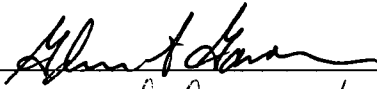
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

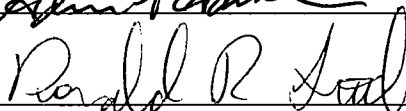
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

- 1. *Unsecured Alum. Valve spanner located 4½' from valve Motor Operator but would NOT impact Motor Operator in seismic event. Per tag, spanner is in intended location.*

Evaluated by: Glenn Gardner  Date: 7/13/12

Evaluated by: Ronald R. Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-037

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-038

AWC # KW-WB-003

Status Y N U

Equipment ID No. 33033/SW301A Equip. Class 8

Equipment Description EDG 1A Oil Cooler Water Outlet

Location: Bldg. Admin Floor El. 586 Room, Area 00-7.6/AE.3

Manufacturer, Model, Etc. (optional but recommended) AUTOMATIC SWITCH CO, NPL8320A182E

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-038

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
CR 481188 written to request relocation of wrench hung from pipe. Judged by both SWEs to not be a seismic concern in the as-found condition.
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
SA 2" supply is located approximately 1" from flex pipe adjacent to the valve, these are hard targets which will remain functional despite potential interaction per EPRI-NP-6041-SL guidance. Therefore, clearance is acceptable. Also note analyzed piping is not within scope NTTF 2.3.
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

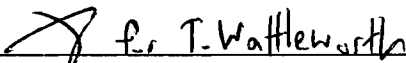
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Note: 33033 is SV supply to actuator. SW 301A, the AOV control valve is CV-31088.

Field Walkdown 7/9/12

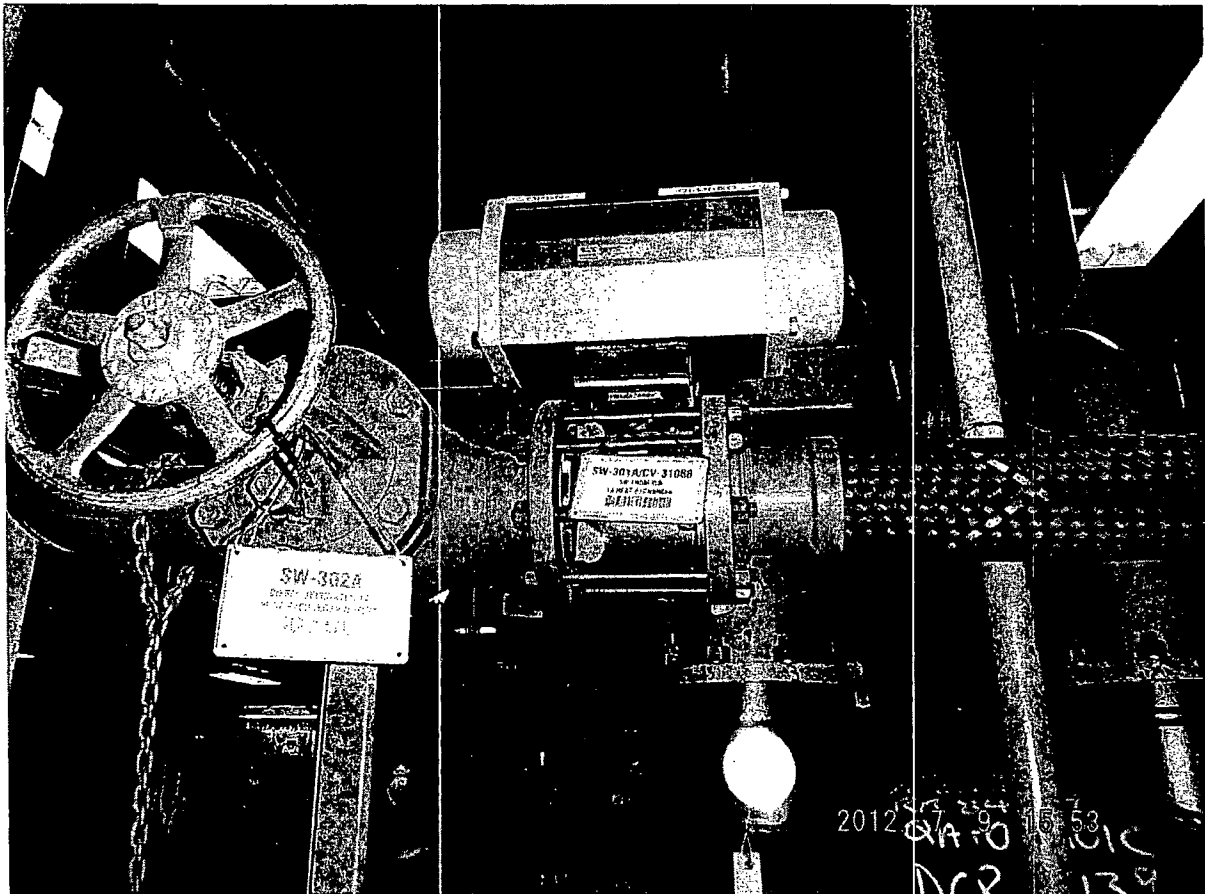
Evaluated by: Tim Wattleworth  Date: 9/13/12

Evaluated by: Daniel J. Vasquez  Date: 9/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-038

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-039

AWC # KW-WB-005

Status Y N U

Equipment ID No. 33454 Equip. Class 8

Equipment Description SCRNHSE EXH Fan 1A DISCH DMPR A SV

Location: Bldg. SCRNHSE Floor El. 586 Room, Area 00-COL-6.1

Manufacturer, Model, Etc. (optional but recommended) AUTOMATIC SWITCH CO. NP8320A176E

Instructions for Completing Checklist

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

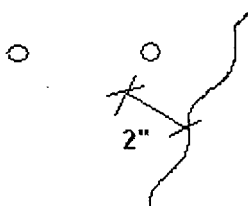
Anchorage

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

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

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

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



1/4" Hilti anchor bolts.
 Crack is tight, not opening up.
 See Note 1 in Comments Section

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-039

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

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

Interaction Effects

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

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

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

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

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


Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-039

Comments (Additional pages may be added as necessary)

Note 1:

The condition of the anchorage is judged to be acceptable. This is based on the 2" distance between concrete crack and anchor. Also, the weight of the solenoid is relatively small compared to anchor capacity. It is determined to be adequate for seismic conditions.

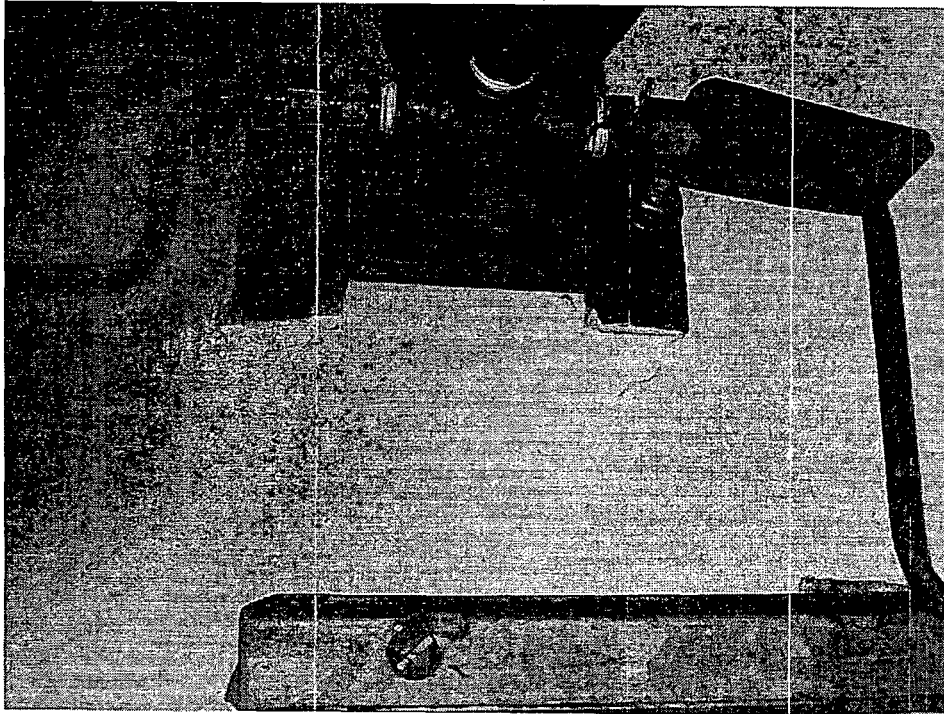
Evaluated by: Ronald R. Little  Date: 7/13/12

Evaluated by: Glen Gardner  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-039

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-040

AWC # KW-WB-003

Status Y N U

Equipment ID No. 33875 Equip. Class 8

Equipment Description EDG Room 1A DMPR Control SV 1A3

Location: Bldg. Admin Floor El. 586 Room, Area 8.2/AE.0

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-040**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)*None*Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-040

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-041AWC # KW-WB-024Status Y N UEquipment ID No. 132-131 Equip. Class 9Equipment Description Control Room A/C Fan 1ALocation: Bldg. AUX Floor El. 642 Room, Area 03-G.4-8.7Manufacturer, Model, Etc. (optional but recommended) TRANE CO, 25-2-MP-HORIZ**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Edge distance at East-most two supports is only 6½" in the E-W direction. The SEWS states 8" edge distance. Analysis uses 3.75" edge distance, Therefore, accepted.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-041

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

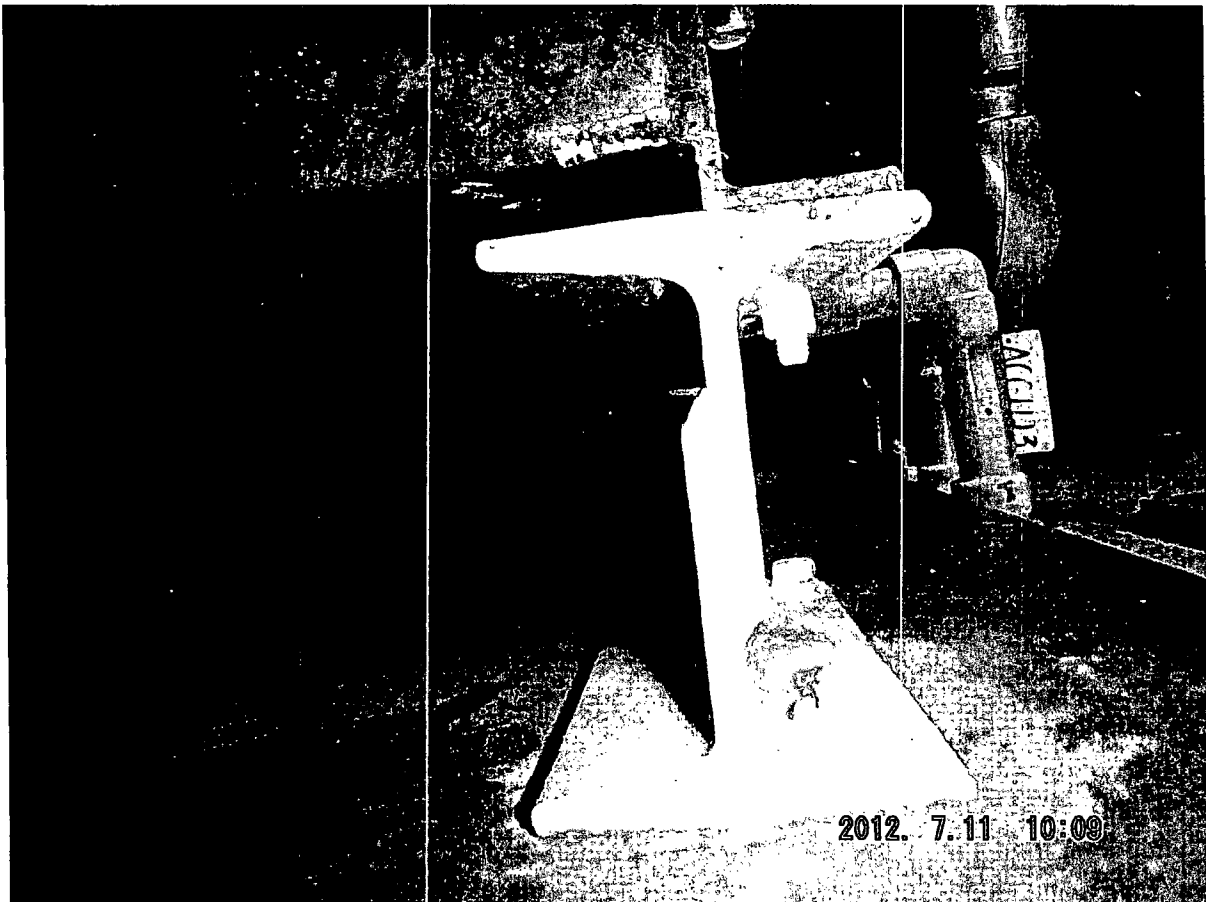
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-041

Comments (Additional pages may be added as necessary)

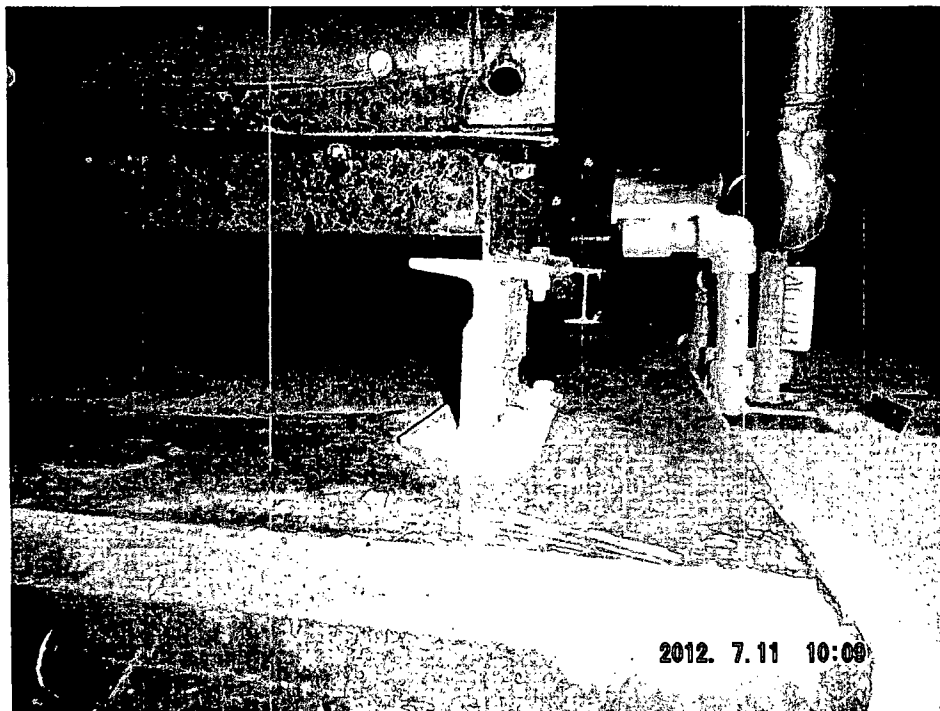
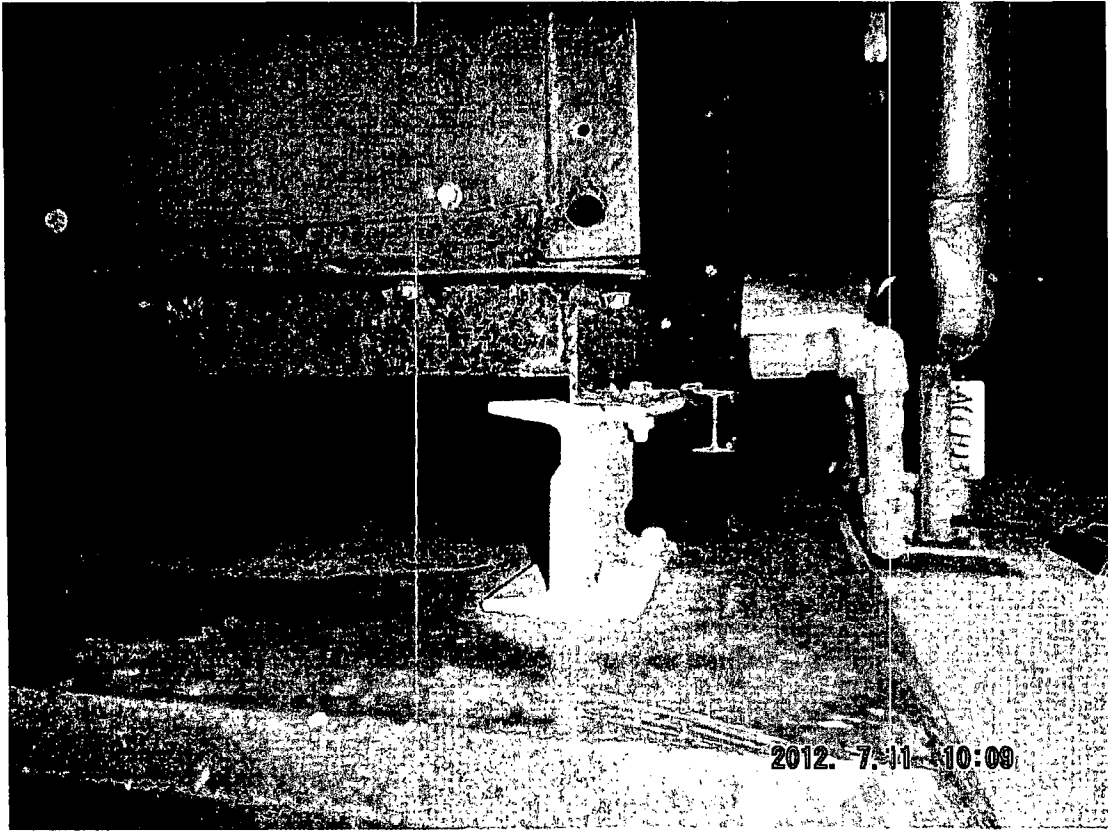
Support feet are spliced together (Either overlapping with 2 each fillets or full-pen. butt welded together). This is NOT documented on the SEWS but found to be acceptable by inspection. Multiple loose screws/bolts on the south panel of the unit. Two are missing. The panel is found to be adequately secured considering that the majority of the loose screws cannot be pulled out by hand and are providing shear resistance (Except for the top horizontal row due to slotted connections). Furthermore, the panel is of sheet metal construction and relatively light. CR 481367 is initiated.

Field Walkdown 7/11/12



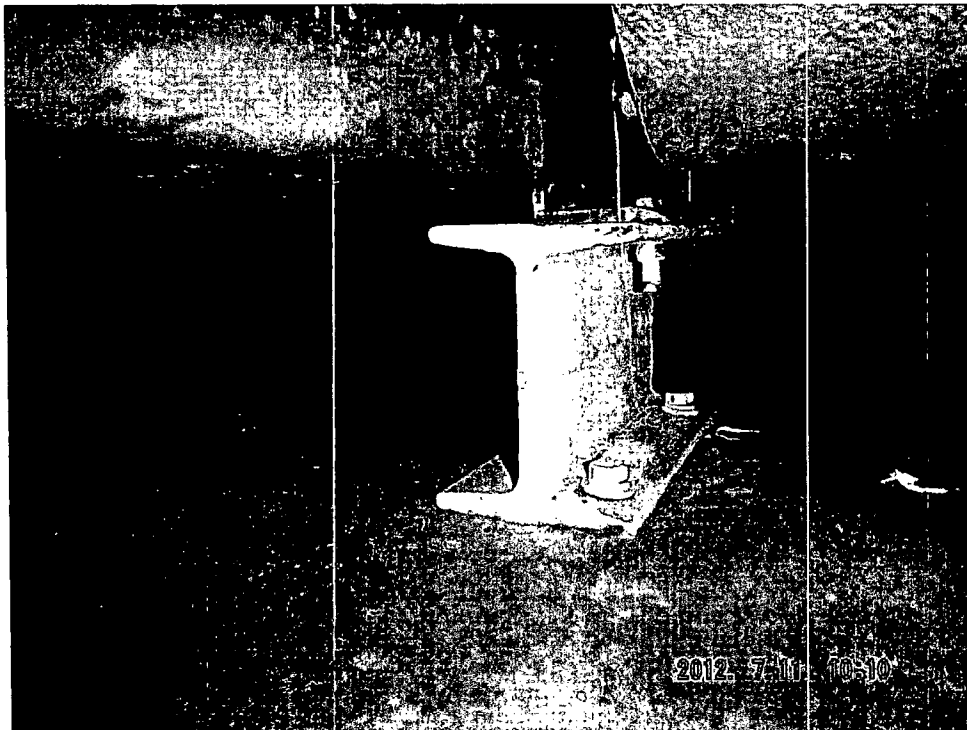
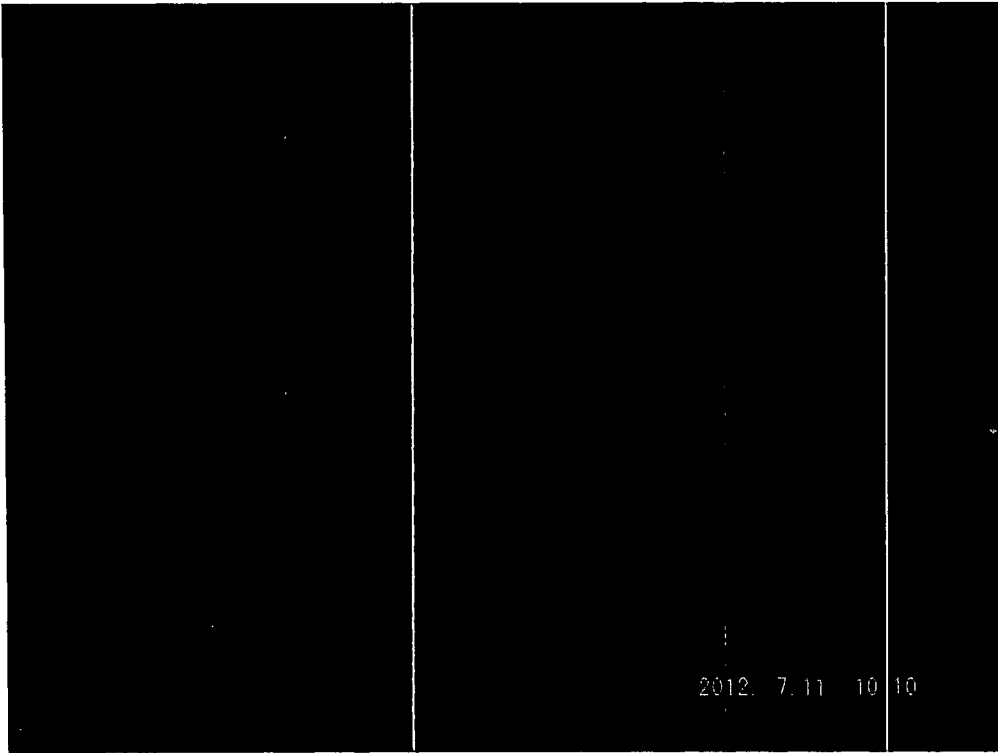
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-041



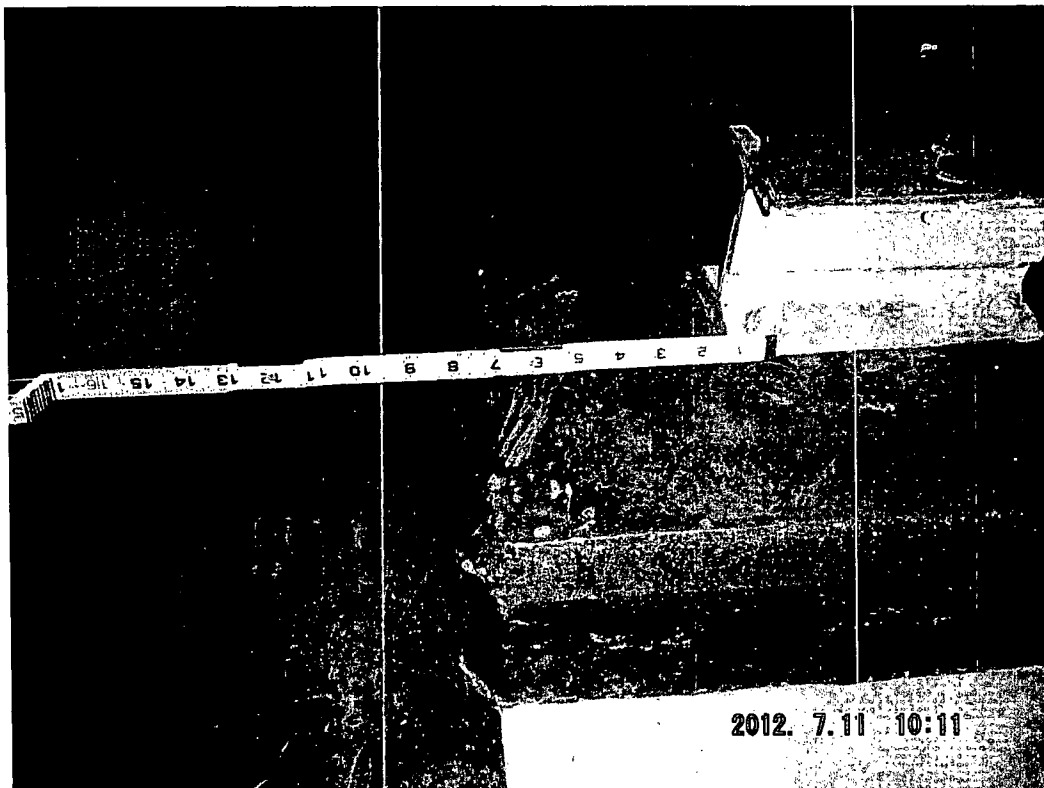
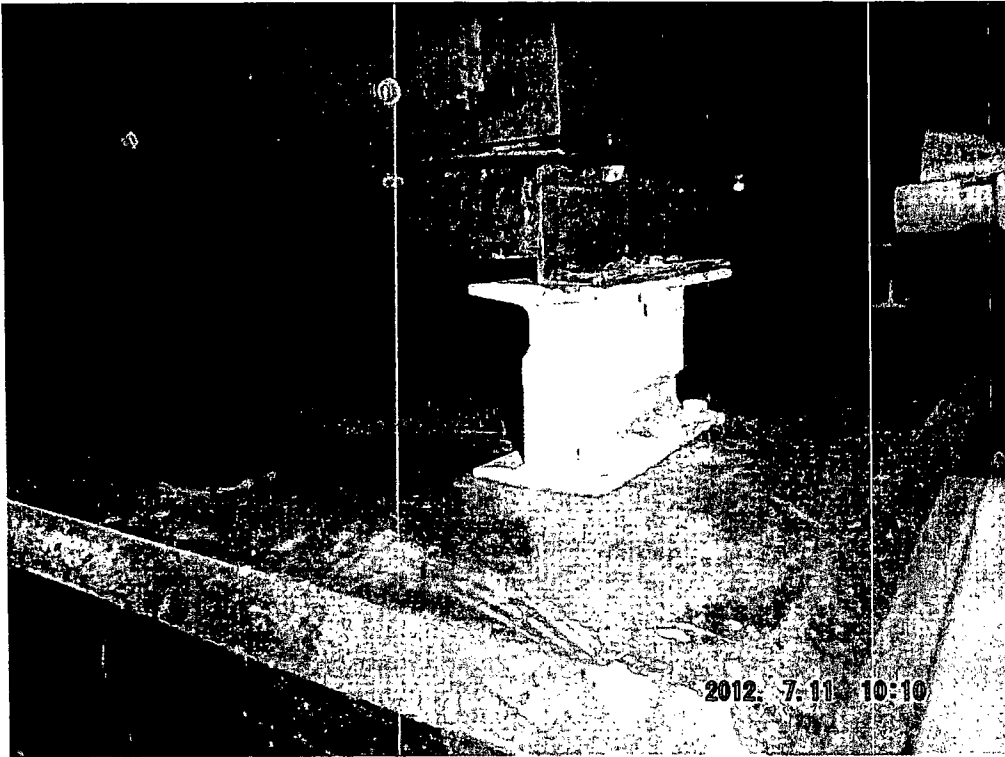
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-041



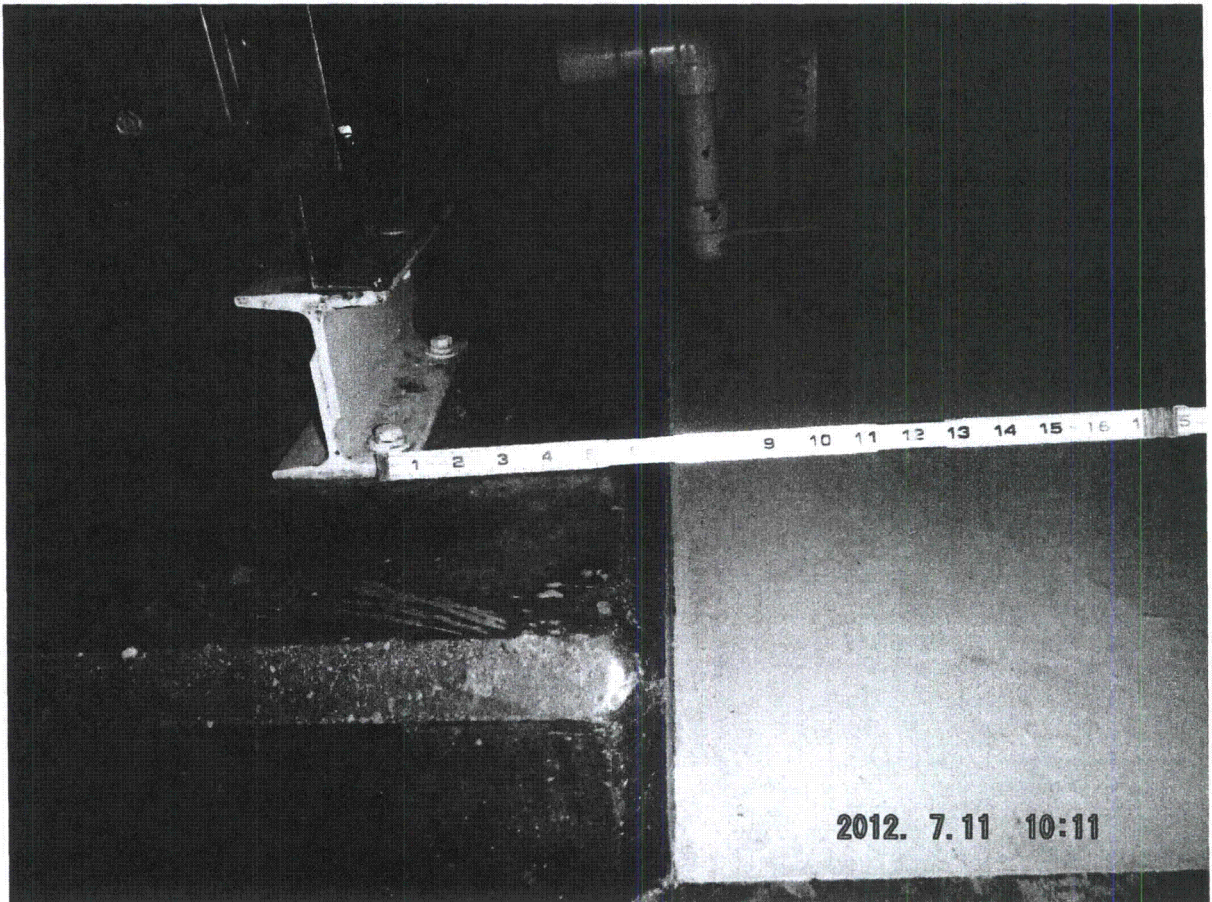
Seismic Walkdown Checklist (SWC)

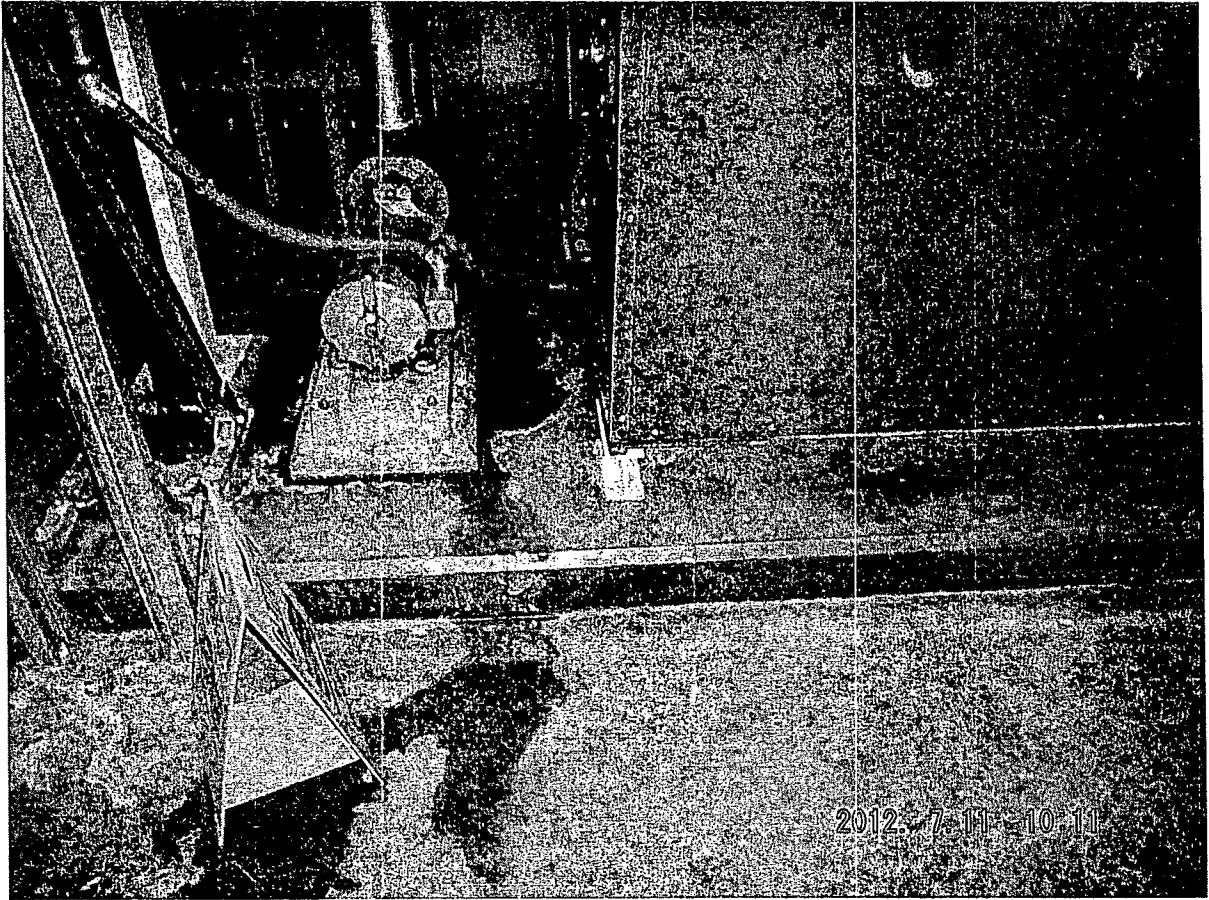
SWC # KW-WD-SWEL-041



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-041





Evaluated by: Ellery Baker *Ellery Baker* Date: 7/11/12

Evaluated by: Tim Corbin *Tim Corbin* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-042

AWC # KW-WB-015

Status Y N U

Equipment ID No. 132-051 Equip. Class 9

Equipment Description Battery Room Exhaust Fan 1A

Location: Bldg. Turbine Floor El. 593 Room, Area 08-D1.5-8.9

Manufacturer, Model, Etc. (optional but recommended) JOY MFG CO, 18-14-1150XP

Instructions for Completing Checklist

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Discontinuities in wall create gap at plate edge, however, anchors are in firm contact with plate and wall. One (1) bolt at the N-W base connection has a lock washer which is deformed in opening. The bolt appears tight and is NOT a structural concern.

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
M-634

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-042

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Lights are clipped per IPEEE. There is a suspended light approximately 8" from housing, however, interaction would NOT challenge the fan.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Seismic Walkdown Checklist (SWC)

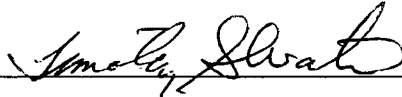
SWC # KW-WD-SWEL-042

Comments (Additional pages may be added as necessary)

None

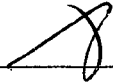
Field Walkdown 7/11/12.

Evaluated by: Tim Wattleworth



Date: 7-23-12

Evaluated by: Daniel J. Vasquez



Date: 8/2/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-043

AWC # KW-WB-003

Status Y N U

Equipment ID No. 132-081 Equip. Class 9

Equipment Description EDG Room Supply Fan 1A

Location: Bldg. Admin Floor El. 586 Room, Area 00-AE.2-8.8

Manufacturer, Model, Etc. (optional but recommended) JOY MFG CO, 54-26.5-1150

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-043

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: ELLERY BAKER *Ellery Baker* Date: 7/9/12

Evaluated by: Tim Corbin *Tim Corbin* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-043

Comments (continuation page)

Field Walkdown 7/9/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-044

AWC # KW-WB-001

Status Y N U

Equipment ID No. 155-031 Equip. Class 10

Equipment Description Fan Coil Unit Turbine 1A

Location: Bldg. Turbine Floor El. 586 Room, Area 00-C.1-8.9

Manufacturer, Model, Etc. (optional but recommended) TRANE CO, 12-3LP VERT

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-044

Interaction Effects

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

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

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

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

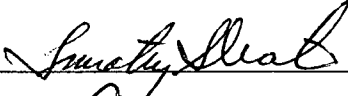
Other Adverse Conditions

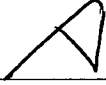
- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Comments (Additional pages may be added as necessary)

A photo showing the south end of the unit, including the support, is appended.

Field Walkdown was performed 7/10/12.

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Seismic Walkdown Checklist (SWC)

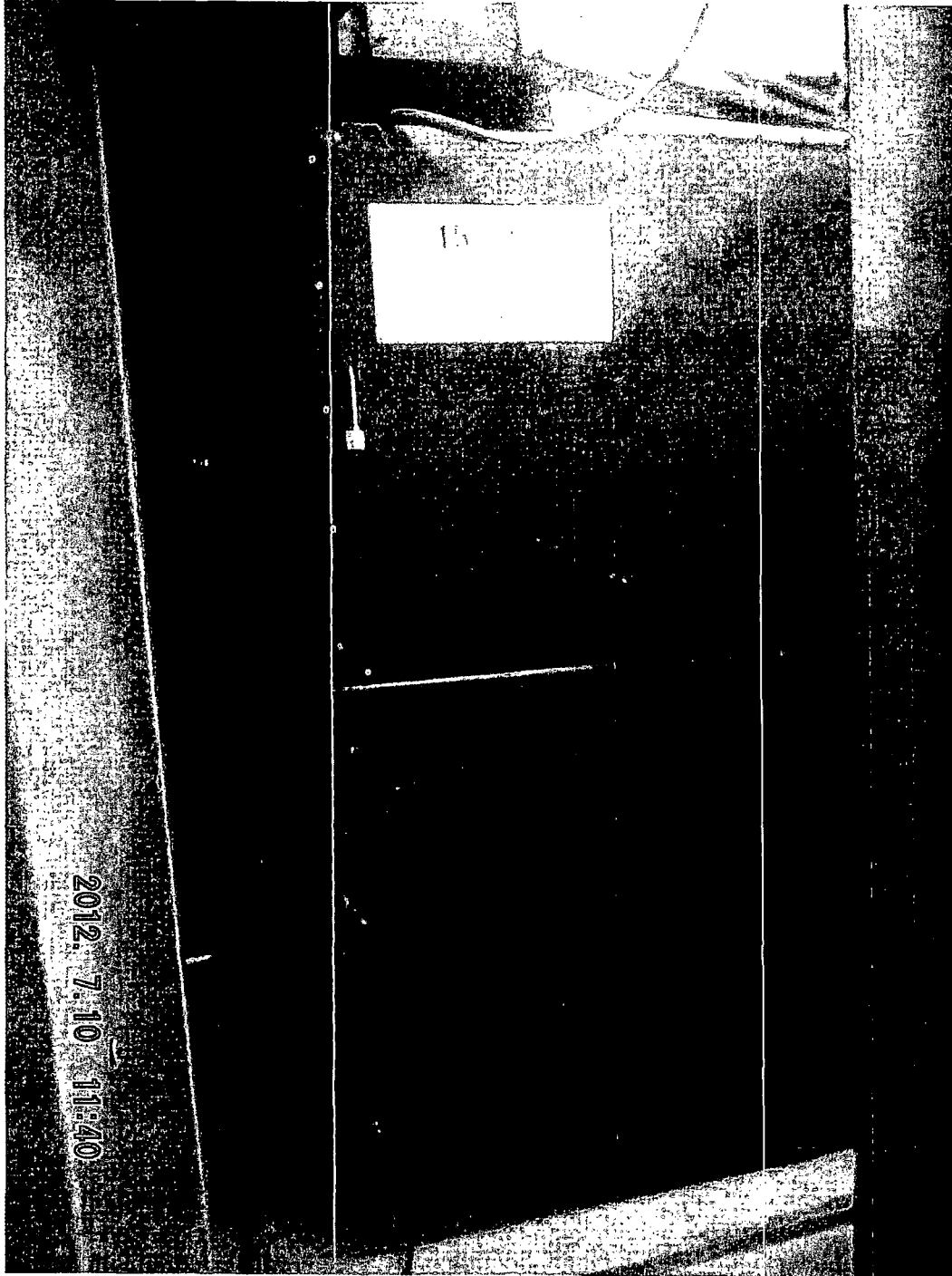
SWC # KW-WD-SWEL-044

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-044



Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-046AWC # KW-WB-015Status Y N U Equipment ID No. 155-211 Equip. Class 10Equipment Description FCU-Battery Room 1ALocation: Bldg. Turbine Floor El. 606 Room, Area 9.0/E.0Manufacturer, Model, Etc. (optional but recommended) TRANE CO, 8-LPH**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-046

Interaction Effects

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

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

- 9. Do attached lines have adequate flexibility to avoid damage?
Inlet/outlet SW line lagging in contact with insulation and also in contact with conduit. Not a seismic interaction concern. Y N U N/A

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

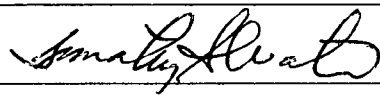
Other Adverse Conditions

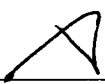
- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Comments (Additional pages may be added as necessary)

See also General Area Walk-By, KW-WB-015

Field Walkdown 7/11/12

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/7/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-046

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-048AWC # KW-WB-029Status Y N U Equipment ID No. 155-301 Equip. Class 10Equipment Description FCU-Aux Bldg Fan FLR FCU 1ALocation: Bldg. AUX Floor El. 657 Room, Area _____Manufacturer, Model, Etc. (optional but recommended) American Air Filter**Instructions for Completing Checklist**

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
S-W Anchor flange is held approximately 3/16" off support steel floor embed. The inner frame at the FCU is bearing on the embed preventing contact of bolting surface, a small deflection of the FCU bolting flange was noted indicating the bolt is in tension. The prying action does not challenge the 7/8" A325 structural bolt.
Per SQUG – GIP, the size at the gap between the base of the equipment and surface of the concrete should be less than 1/4". Therefore, the measured gap of 3/16" is ok.

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Per FCU Drawing S-342, Anchor Calculation 83474/S-B01-ACA-003 and Item 151-301 SEWS

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-048

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

Interaction Effects

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

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
Lighting is supported per recommendation of IPEEE resolution. (S-hooks closed) Y N U N/A

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

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

Other Adverse Conditions

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

Field Walkdown 7/11/12

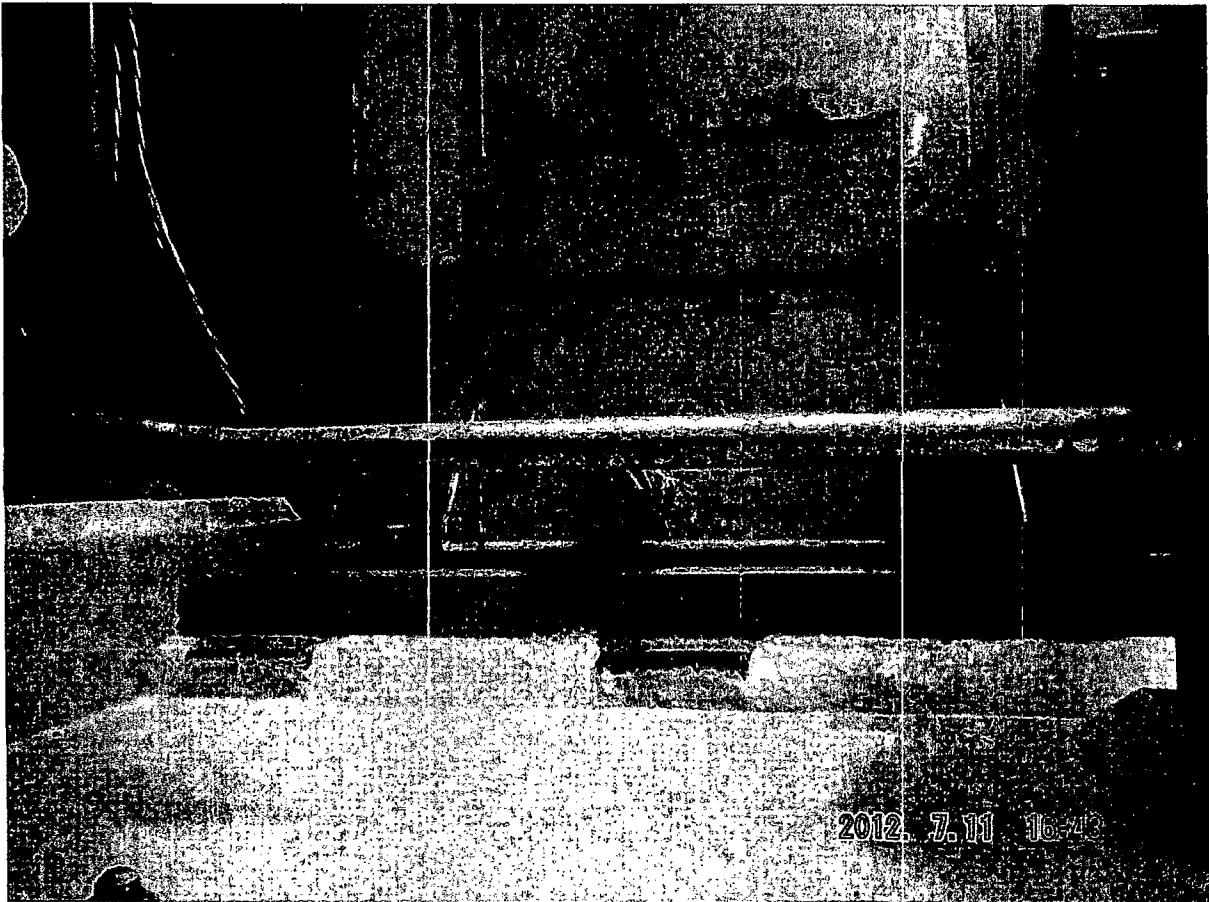
Evaluated by: Tim Wattleworth *AW* for T. Wattleworth Date: 9/13/12

Evaluated by: Daniel J. Vasquez *AW* Date: 9/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-048

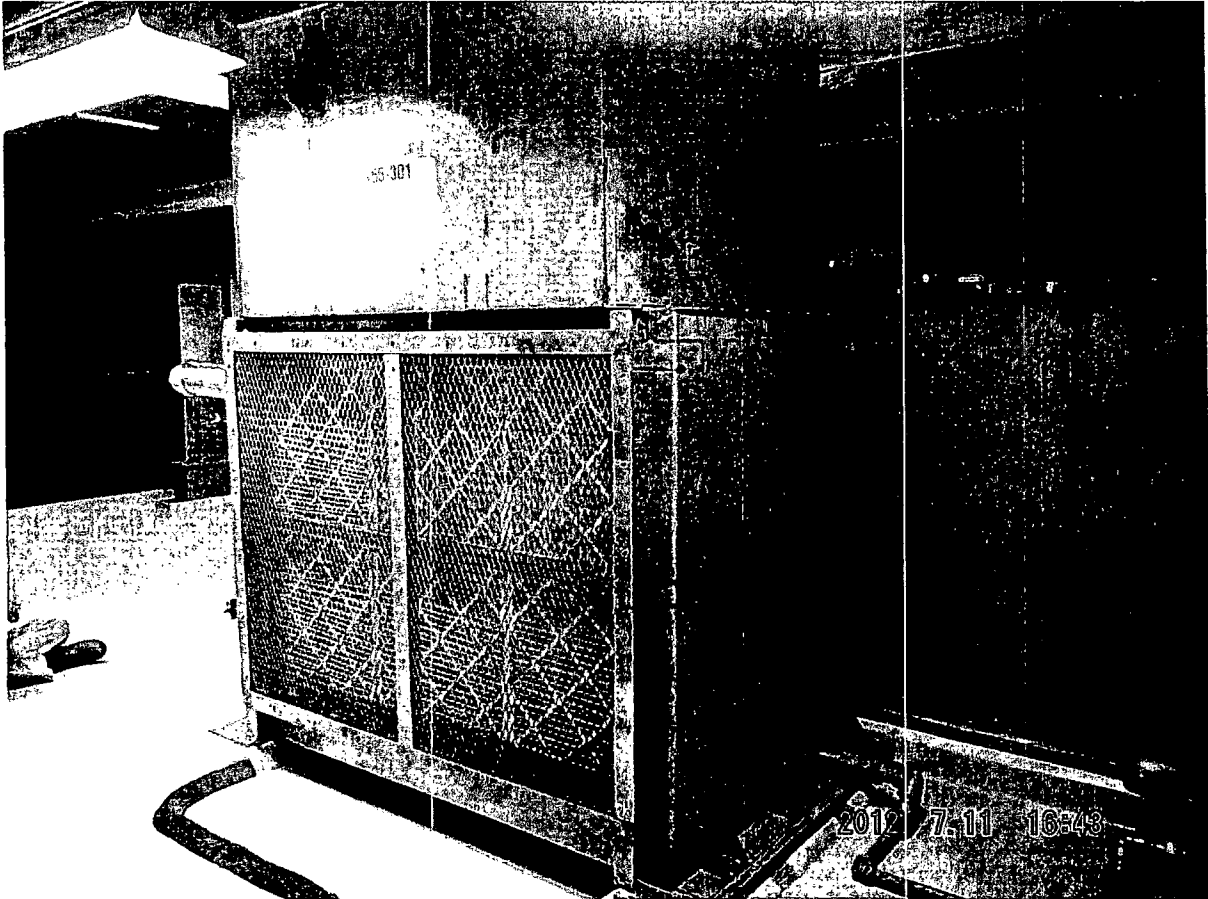
Comments (Additional pages may be added as necessary)



Identified 3/16" gap (refer to Anchorage Question #2)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-048



Equipment ID #155-301

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-049

AWC # KW-WB-024

Status Y N U

Equipment ID No. 32367 Equip. Class 10

Equipment Description Control Room Fresh Air Inlet Damper A

Location: Bldg. AUX Floor El. 642 Room, Area 00-GW.2-9.0

Manufacturer, Model, Etc. (optional but recommended) SURE, RCS SURE 49

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-049

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

*Instrument Air Accumulator in-line with valve IA-1403-4:
 Tubing associated with Tank appears to have been stepped on in the past. Tubing is functional and not a Seismic concern. Should consider retraining the tubing to give a more professional appearance. CR 481373 is initiated.*

Field Walkdown 7/11/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-049



Evaluated by: Tim Corbin Tim P. Corbin Date: 7/13/12
Evaluated by: Ellery Baker Ellery Baker Date: 7/11/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-050AWC # KW-WB-003Status Y N U Equipment ID No. TAV60A/34072 Equip. Class 10Equipment Description Outside Air Inlet Damper to DG Room 1A.Location: Bldg. Admin Floor El. 586 Room, Area 8.3/AE.1Manufacturer, Model, Etc. (optional but recommended) JOHNSON CONTROLS INC, D251-595 KIT A, D267-401**Instructions for Completing Checklist**

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-050

Interaction Effects


7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
Note: 3/8" SA tubing run is supported at approximately 12" from damper. Based on review of tubing, judgement concludes that tubing is sufficiently flexible to avoid damage (note also tube support and duct both ceiling supported adjacent to each other).
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/9/12.

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/7/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-050

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-51**AWC #** KW-WB-024Status Y N U Equipment ID No. 162-131 Equip. Class 12Equipment Description CONTROL RM A/C COMPR IALocation: Bldg. AUX Floor El. 642 Room, Area REACTOR & AUXILIARY BLDG-MISC FLOORSManufacturer, Model, Etc. (optional but recommended) ARCTICHILL INC -PWCCMV0500D4 -001076100**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-51

Interaction Effects

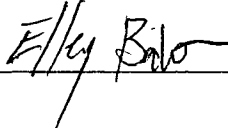
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/11/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-51

Comments (continuation page)

Field Walkdown 7/11/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-52

AWC # KW-WB-027

Status Y N U

Equipment ID No. 84018 Equip. Class 14

Equipment Description Signal CNVTR-Neutron Flux Monitor

Location: Bldg. AUX Floor El. 606 Room, Area REACTOR AND AUX BLDG MEZZ (SUP. SKM-1582)

Manufacturer, Model, Etc. (optional but recommended) GAMMA-METRICS / 200617-107 / 151

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

SEWS refers to 84019 with four (4) concrete anchors at 3/8" and 4 unistrut bolts at 1/2". These were revised for 84018 (unistrut vertical at 84018) vs. horizontal at 84019.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-52

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

Interaction Effects

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

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

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

Light hung in area with S hooks crimped per IPEEE Evaluation.

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/12/12

Evaluated by: Tim Wattleworth

Timothy Alva

Date: 7-23-12

Evaluated by: Daniel J. Vasquez

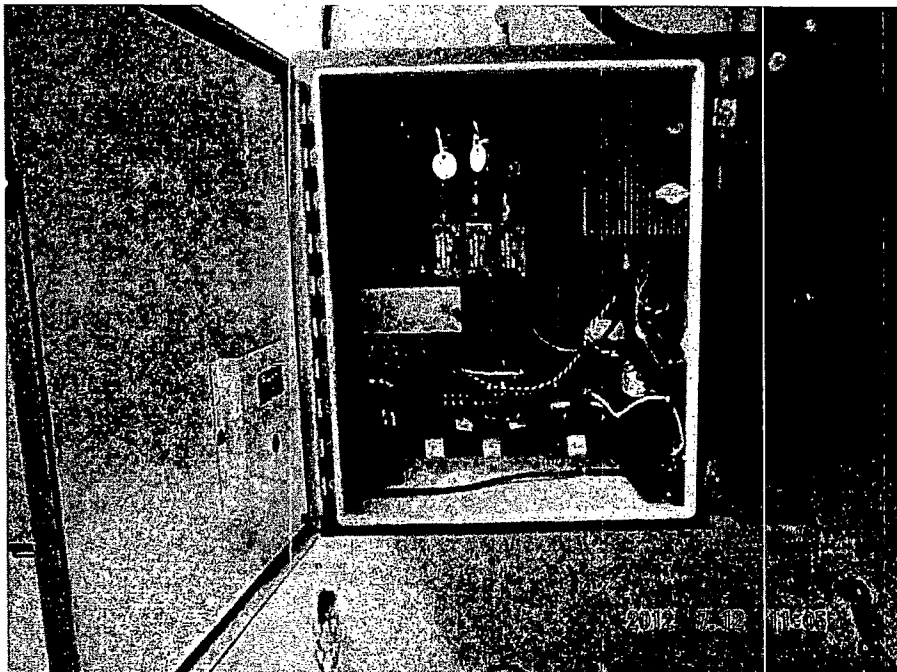
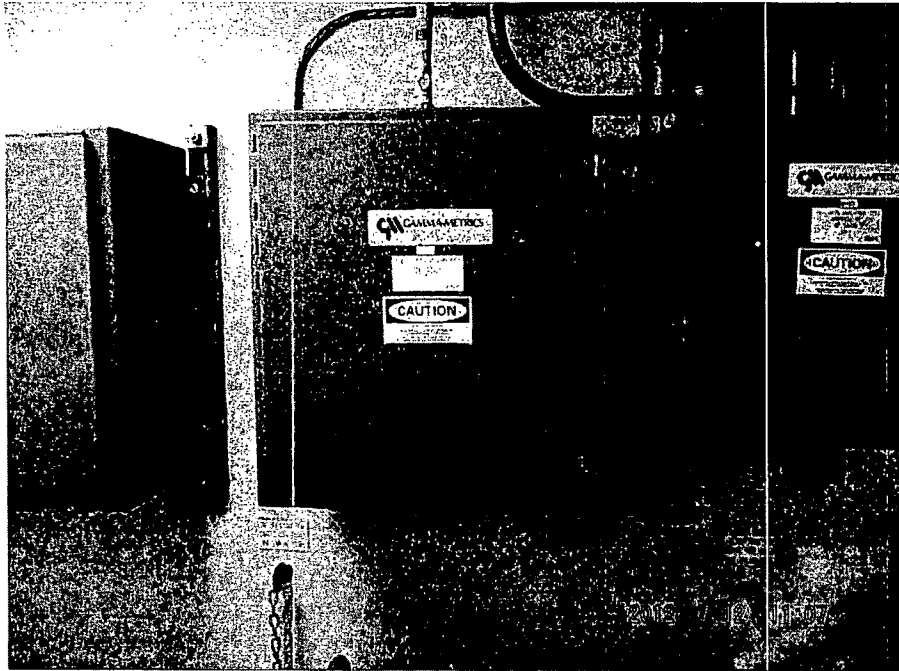
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Date: 8/3/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-52

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-053

AWC # KW-WB-015

Status Y N U

Equipment ID No. BRA102 Equip. Class 14

Equipment Description 125VDC MAIN DISTR. CABINET

Location: Bldg. TURB Floor El. 606 Room, Area TURBINE AND ADMIN BLDG
MEZZ(SUP. SKM-1580)

Manufacturer, Model, Etc. (optional but recommended) COMMONWEALTH ELECTRIC CO/TS-E836 SEE
TECH INFO

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-053

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

Interaction Effects

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

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

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

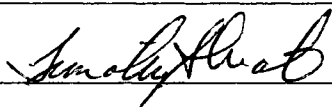
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

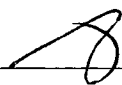
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/12/12.

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 7/7/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-054AWC # KW-WB-015Status Y N U Equipment ID No. BRA104 Equip. Class 14Equipment Description 125VDC DISTR. CABINETLocation: Bldg. TURB Floor El. 606 Room, Area TURBINE AND ADMIN BLDG
MEZZ(SUP. SKM-1580)Manufacturer, Model, Etc. (optional but recommended) COMMONWEALTH ELECTRIC CO/TS-E836 SEE
TECH INFO**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-054

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
Adjacent lighting Secured with S-hooks closed. Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

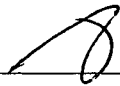
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

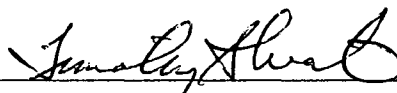
Field Walkdown 7/12/12.

Evaluated by: Daniel J. Vasquez



Date: 8/3/12

Evaluated by: Tim Wattleworth



Date: 7-23-12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-055AWC # KW-WB-015Status Y N U Equipment ID No. BRA114 Equip. Class 14Equipment Description 118VAC DISTR CABLocation: Bldg. TURB Floor El. 606 Room, Area AUX. AND EMERGENCY ACManufacturer, Model, Etc. (optional but recommended) WESTINGHOUSE ELECTRIC CORP/678793**Instructions for Completing Checklist**

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
SEWS indicates 1/2" Red head Unistrut to wall connection, however cabinet to Unistrut was listed unknown. Based on walkdown, the 1/2" Red heads were found to extend from box thru the Unistrut into the anchor. This is a robust seismic configuration.

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-055

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

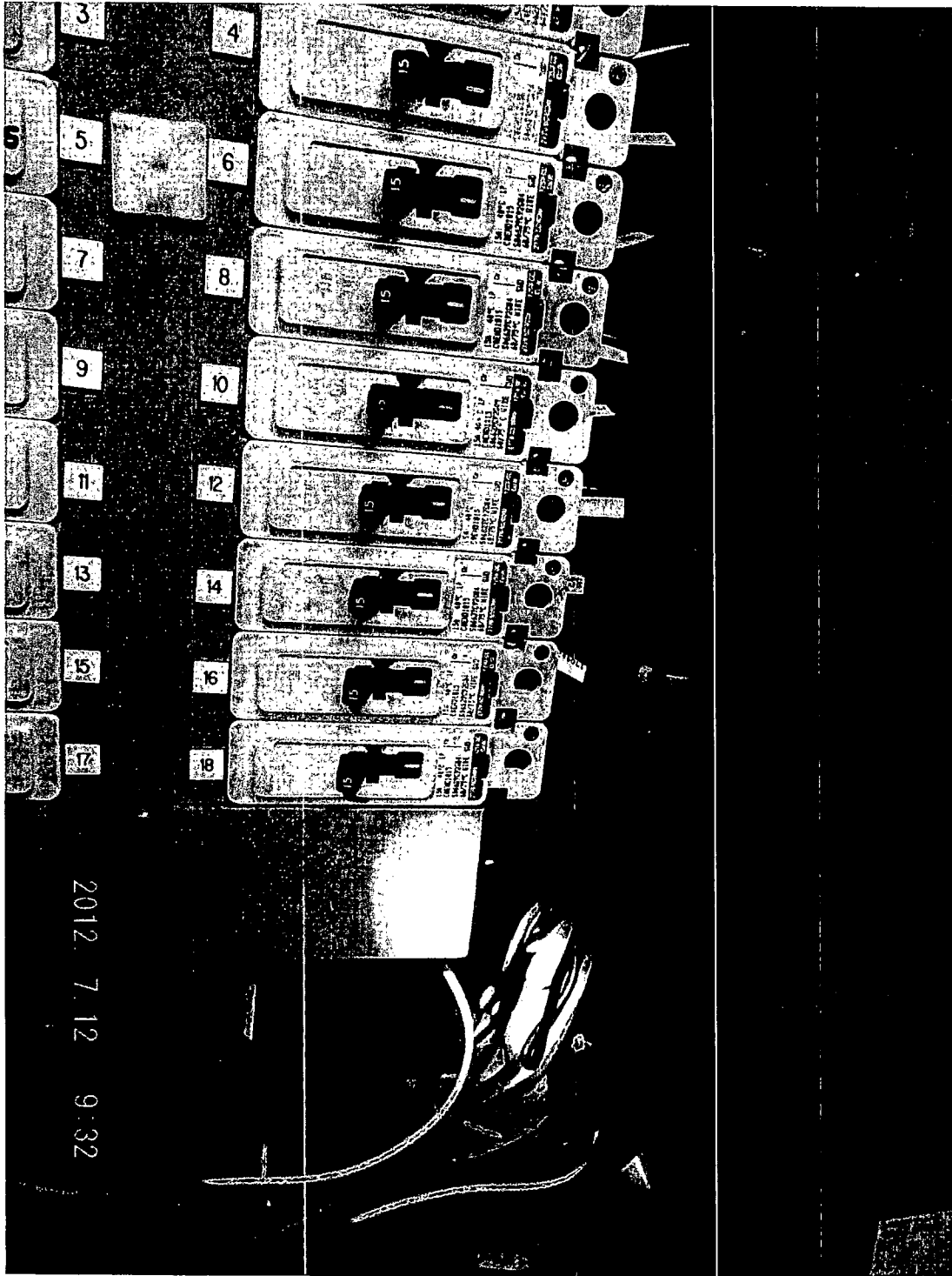
Other Adverse Conditions

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

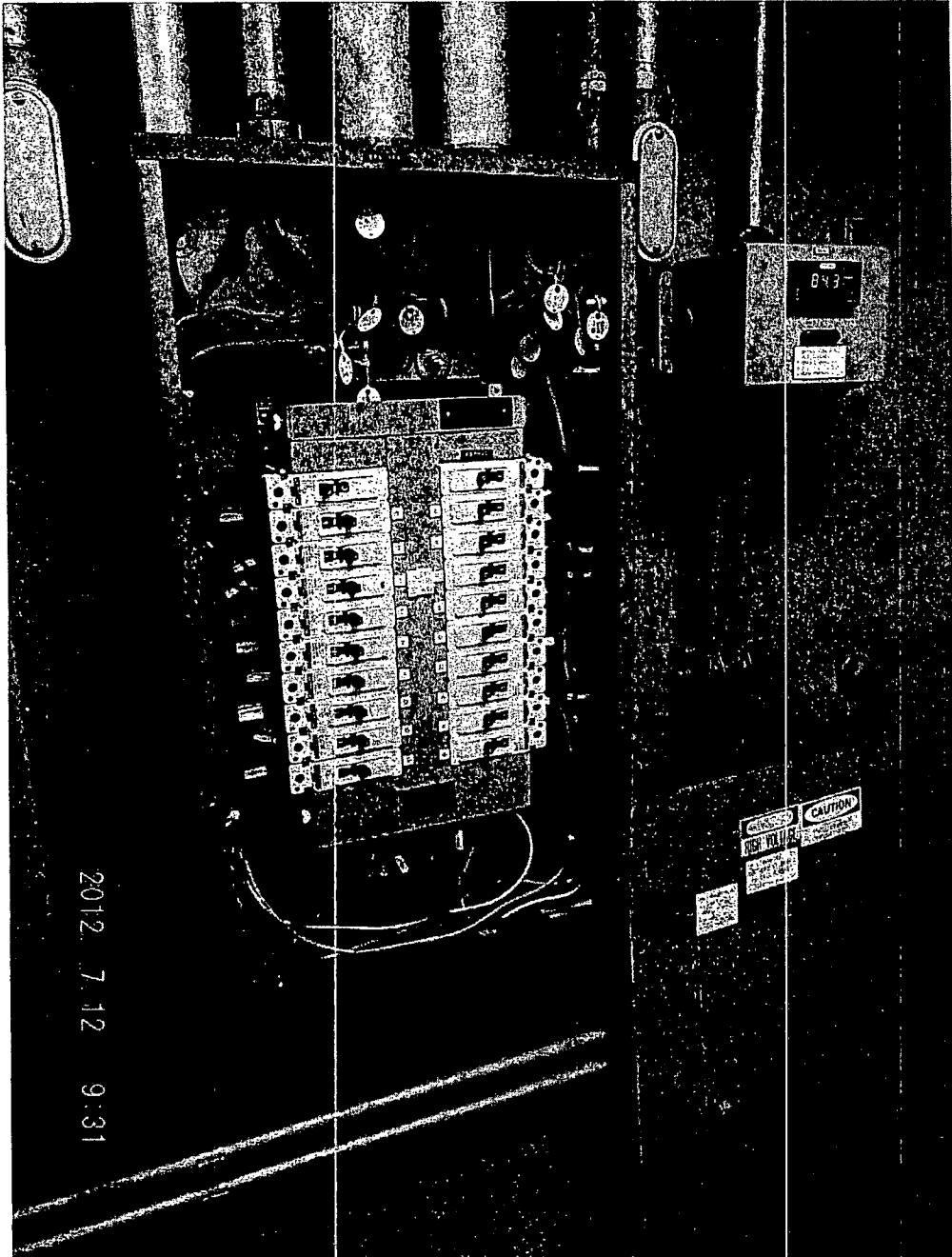
Comments (Additional pages may be added as necessary)*Field Walkdown 7/12/12*

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-055



Anchor bolt head with washer.



Anchor bolt heads visible in corners

Evaluated by: Tim Wattleworth *Timothy Wattleworth* Date: 7-23-12

Evaluated by: Daniel J. Vasquez *DJ Vasquez* Date: 8/7/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-057AWC # KW-WB-015Status Y N UEquipment ID No. BRA101 Equip. Class 15Equipment Description Station Battery ALocation: Bldg. TURB Floor El. 606 Room, Area TURBINE & ADMIN BLDG-MEZZANINManufacturer, Model, Etc. (optional but recommended) C&D POWER SYSTEMS INC/LCR-25**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Per drawing XK-75155-3, DCR 3687, configuration of rack and anchorage observed in the field was evaluated and qualified in C11802.
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.)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-057

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
- *S-hooks crimped on lighting*
 - *Exhaust fan and duct work on North wall are well supported.*
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

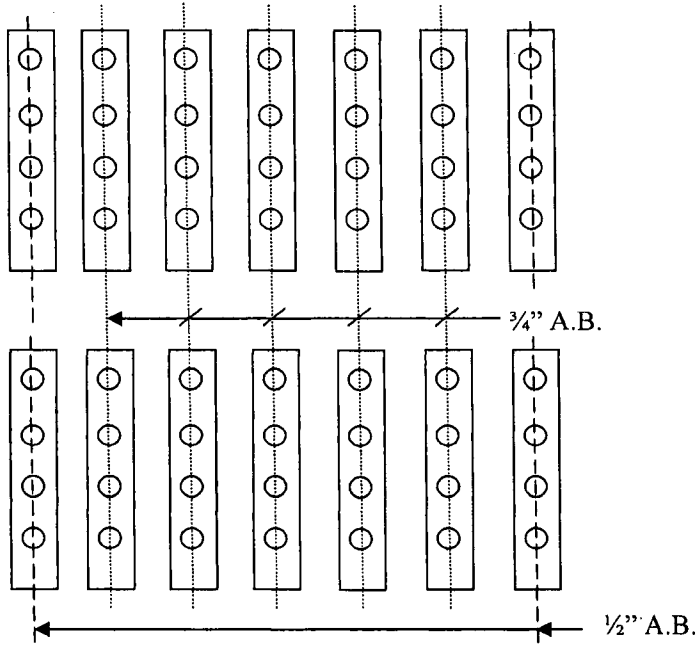
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-057

Comments (Additional pages may be added as necessary)

Per DWG XK-75155-3, DCR 3687 edge rows-smaller anchors were added to provide additional length to the rack. This matches the field condition.



Field Walkdown 7/11/12

Evaluated by: Tim Wattleworth *Tim Wattleworth* Date: 7.23.12

Evaluated by: Daniel J. Vasquez *DJ Vasquez* Date: 8/3/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-058

AWC # KW-WB-015

Status Y N U

Equipment ID No. BRA108 Equip. Class 16

Equipment Description Battery Charger 125VDC

Location: Bldg. TURB Floor El. 606 Room, Area TURBINE AND
ADMIN BLDG MEZZ/SUP. SKM-1580

Manufacturer, Model, Etc. (optional but recommended) C&D POWER SYSTEMS
INC/ARR130K150F/BES900206

Instructions for Completing Checklist

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

Anchorage

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

Interaction Effects

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-058

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

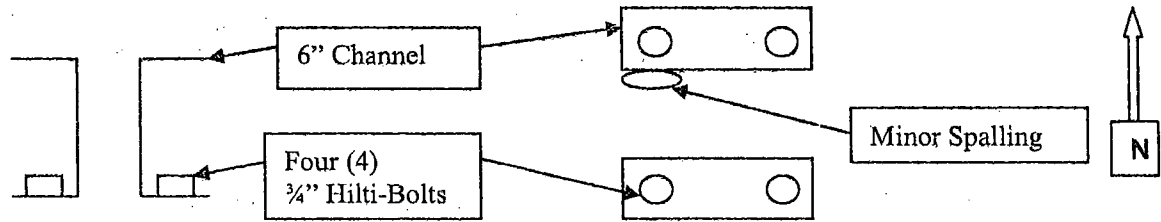
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)



FIELD WALK DOWN 7.11.12

Evaluated by: Tim Wattleworth *[Signature]* Date: 7.19.12

Evaluated by: Daniel Vasquez *[Signature]* Date: 8/8/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-061

AWC # KW-WB-003

Status Y N U

Equipment ID No. 134-031 Equip. Class 17

Equipment Description Diesel Generator 1A

Location: Bldg. ADMIN Floor El. 586 Room, Area TURBINE & ADMIN.BLDG.-BASEMENT FLOOR

Manufacturer, Model, Etc. (optional but recommended) ELECTRO-MOTIVE DIV/A-20-C1 /TECH INFO MORE/70-J1-1039

Instructions for Completing Checklist

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

Anchorage

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

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
 - a. *Hairline cracks grout at isolated locations, but do not appear to reflect in concrete pedestal.*
 - b. *Grout chipping north end, grout under skid intact.*

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.)

Note: 1" diameter bolts, good condition. Size referenced in the SQUG USI A-46 SEWS form.

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-061**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
- a. *SW-301 airlines at SE of skid are near a wrench which is hung from pipe for valve manual action. The wrench is on opposite side of large pipe and cannot contact tubing, etc. CR 481188 to request locate on hook to ensure won't be placed in contact with soft targets.*
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
- Note: Overhead fluorescent light S-Clips closed, not a II/1 concern.*
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
- 6" conduit on the North end of the skid to AR-101 has rigidity and anchorage support to resist seismic forces, while the vertical inverted "U" configuration will allow pipe to accommodate operating vibration and seismic displacement.*
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-061

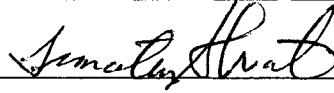
Comments (Additional pages may be added as necessary)

7 b. Piping on S end skid (SW) has locations where < 2" clear

- SW – H210 support to pipe. 3" line is rugged and suitable to resist potential interaction (Note: analyzed piping is not in scope of NTTF 2.3)*
- 2" SA line to 3" Flex pipe in SW line. Both are robust EPRI hard targets (remain functional despite interaction) per EPRI NP-6041 SL guidance. (Note: analyzed pipe is not in scope of NTTF 2.3)*

Field Walkdown 7/9/12

Evaluated by: Tim Wattleworth



Date: 7.23.12

Evaluated by: Daniel J. Vasquez

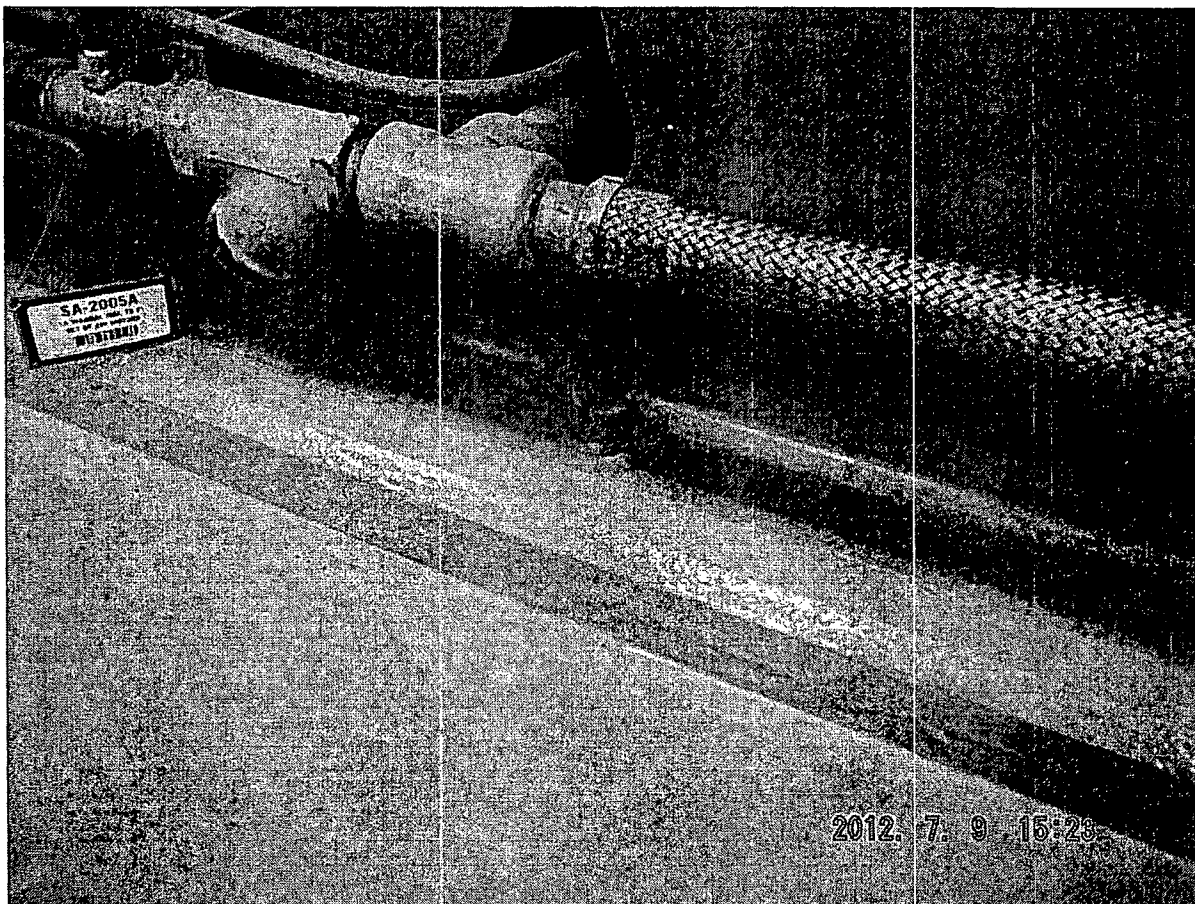


Date: 8/7/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-061

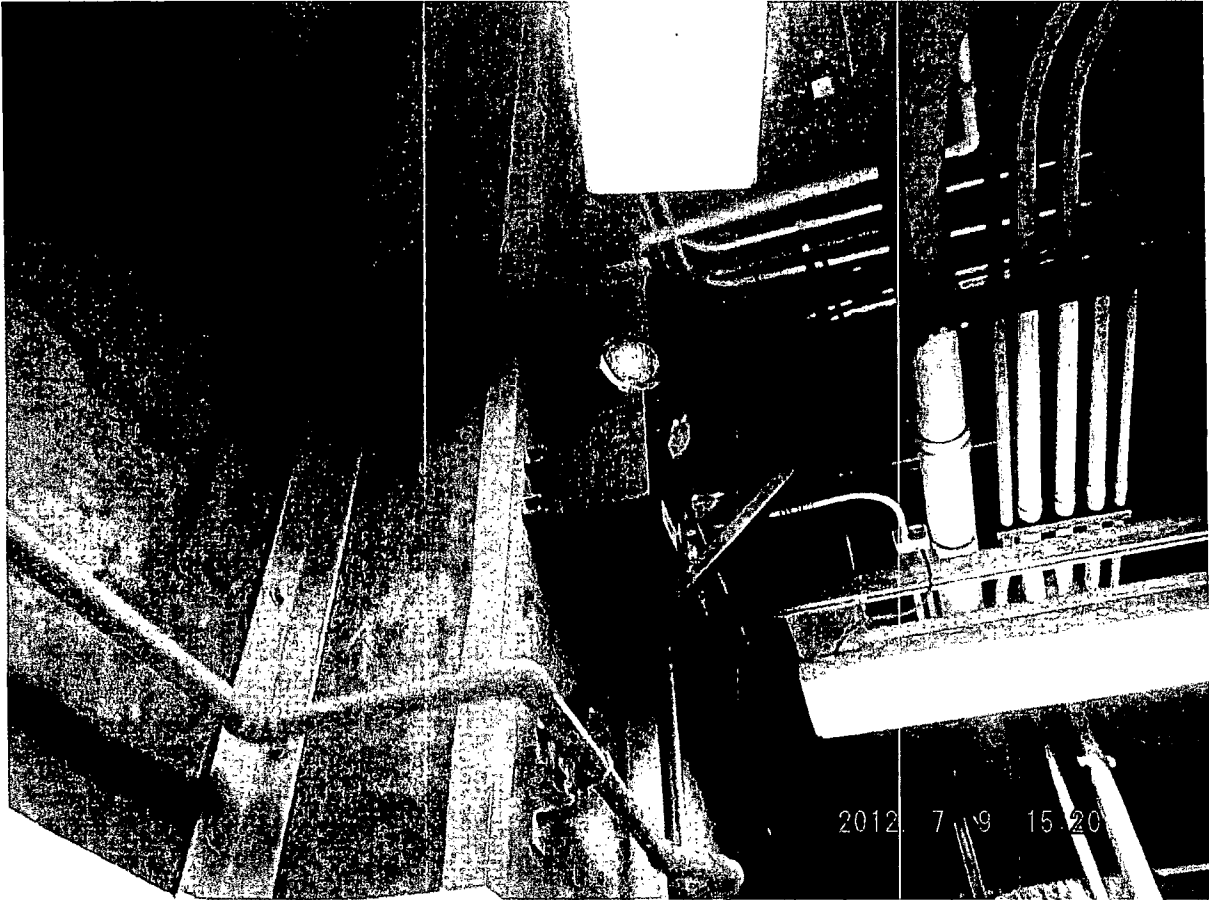
Comments (continuation page)



Anchorage (Typical)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-061



Appendix R Light

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-062AWC # KW-WB-004Status Y N U Equipment ID No. 11267 Equip. Class 18Equipment Description EDG Fuel Oil Day Tanks 1A1/1A2 DPILocation: Bldg. ADMIN Floor El. 586 Room, Area ADMIN BLDG BSMT EL 586-0" PLAN & SECTManufacturer, Model, Etc. (optional but recommended) ITT BARTON INSTRUMENTS CO/290A/290A-1640**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-062

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Tim Corbin / Sig P. Costi Date: 7/13/12

Evaluated by: Glen Gardner / Jim A. Lane Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-062

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-063

AWC # KW-WB-002

Status Y N U

Equipment ID No. 15507J Equip. Class 18

Equipment Description AFWP A Aux Lube Oil Pump Start

Location: Bldg. TURB Floor El. 586 Room, Area TURBINE BUILDING BASEMENT EL 586'-0"

Manufacturer, Model, Etc. (optional but recommended) ASHCROFT/B420B/D94165

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-063

Interaction Effects

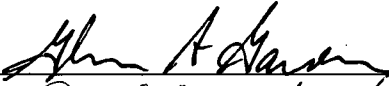
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

NONE

Evaluated by: Glen Gardner  Date: 7/13/12

Evaluated by: Ron Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-063

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-064

AWC # KW-WB-020

Status Y N U

Equipment ID No. 16112 Equip. Class 18

Equipment Description MS HDR 1A Relief Pressure Switch

Location: Bldg. AUX Floor El. 618 Room, Area AUX BLDG

Manufacturer, Model, Etc. (optional but recommended) UNITED ELECTRIC CONTROLS CO/J7-680

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-064

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

Interaction Effects

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

Abandoned steel angle bracket is attached to side of instrument stand with a single U-bolt. It was judged to not interact with soft targets based on inspection. CR481541 has been initiated to remove the abandoned bracket.

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

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

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

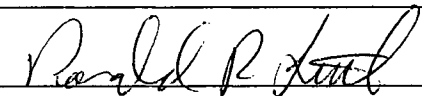
Other Adverse Conditions


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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-064

Comments (Additional pages may be added as necessary)

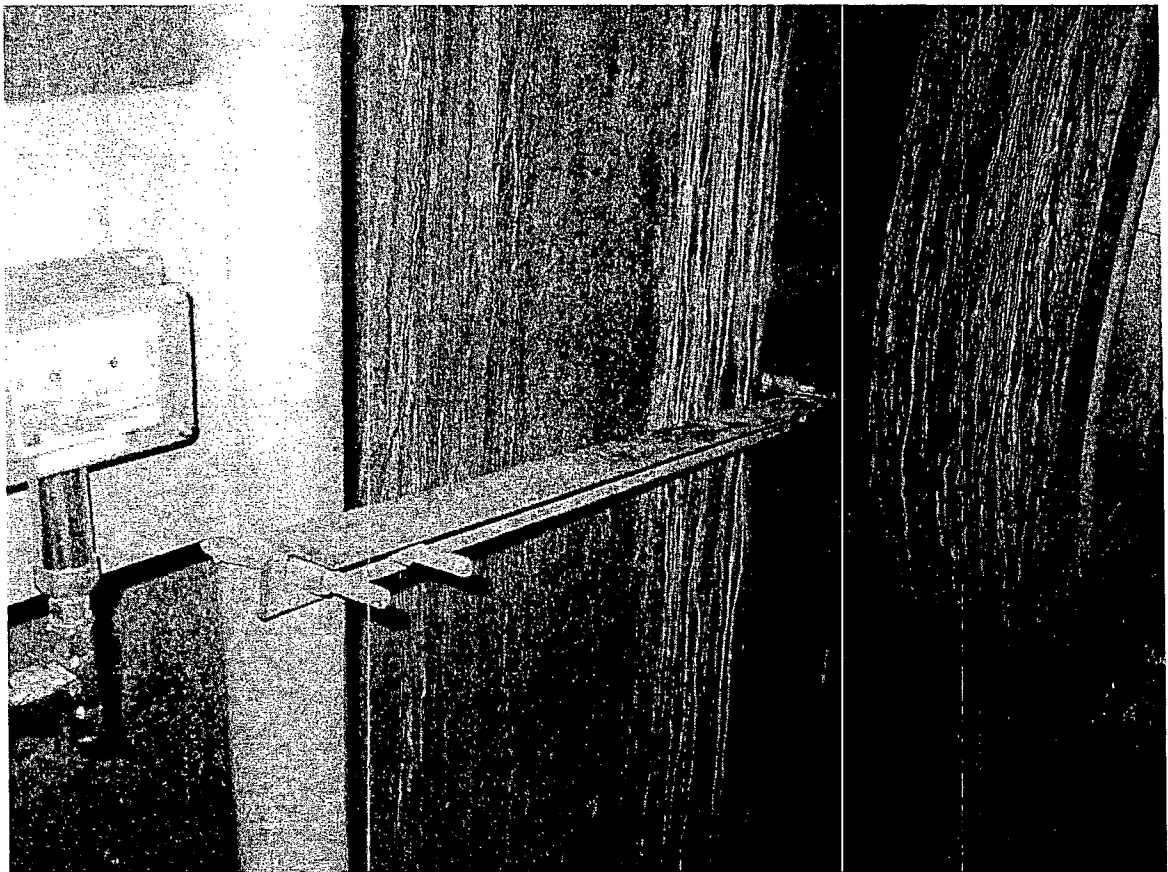
Evaluated by: Ronald R. Little  Date: 7/13/12

Evaluated by: Glen Gardner  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-064

Comments (continuation page)



Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-65AWC # KW-WB-015Status Y N UEquipment ID No. 16233 Equip. Class 18Equipment Description Battery Room FCU 1A DISCH AIR TSLocation: Bldg. TURB Floor El. 606 Room, Area ADMIN.TURB.& SCREENHOUSE BLDManufacturer, Model, Etc. (optional but recommended) UNITED ELECTRIC CONTROLS CO/C402-120**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-65

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Lights chains are crimped per IPEEE.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None.

Field Walkdown 7/11/12.

Evaluated by: Tim Wattleworth



Date: 7-23-12

Evaluated by: Daniel J. Vasquez



Date: 8/8/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-066

AWC # KW-WB-005

Status Y N U

Equipment ID No. 16395 Equip. Class 18

Equipment Description Screenhouse IA Area TS

Location: Bldg. SCRNHSE Floor El. 586 Room, Area _____

Manufacturer, Model, Etc. (optional but recommended) UNITED ELECTRIC CONTROLS CO/103 TYPE-C302D/0324

Instructions for Completing Checklist

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

Anchorage

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

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors?
See note 1 Y N U N/A

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-066

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

Interaction Effects


- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

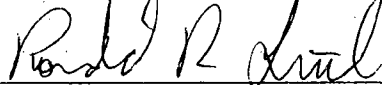
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

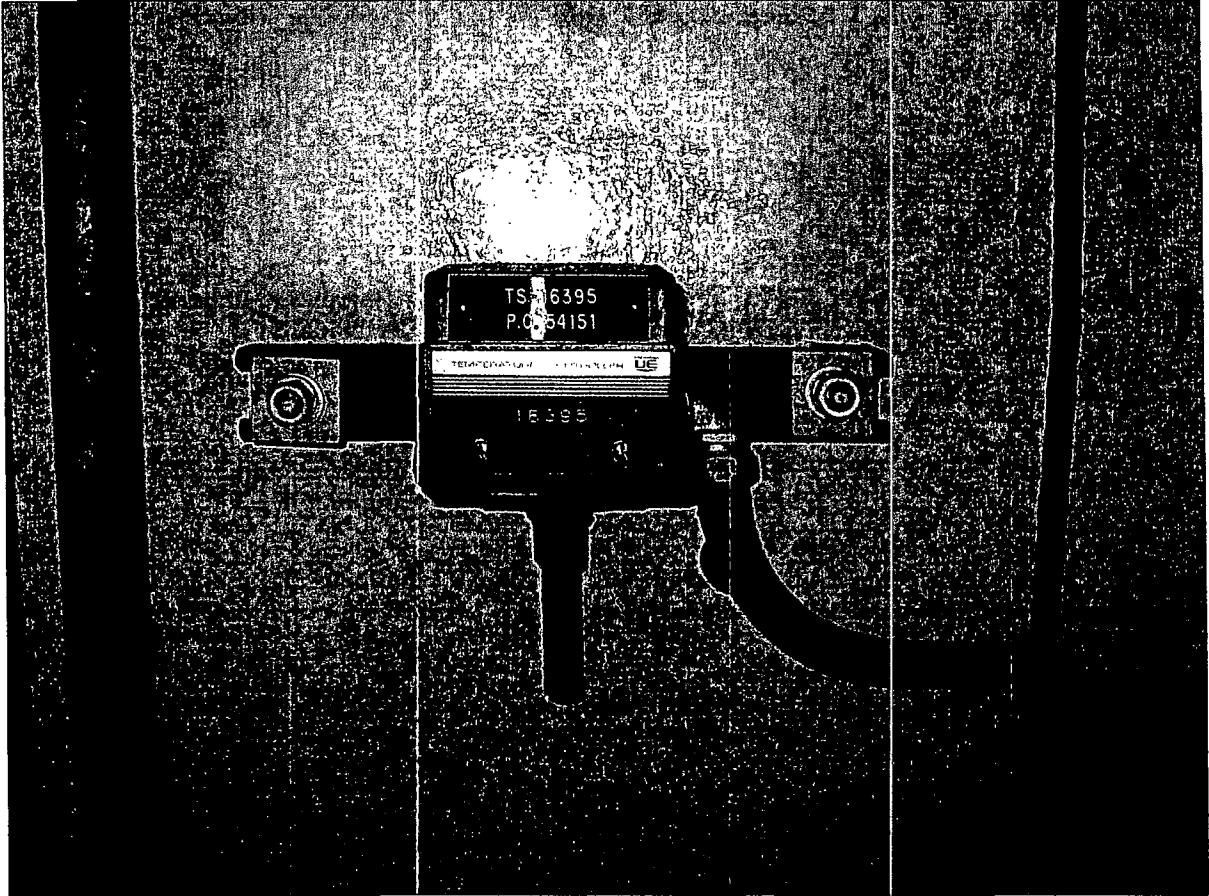
Note 1: Tight vertical crack in concrete runs ~3" from nearest anchorage. No crack emanating from anchorage. TS-16397 anchorage in also in the area of crack but is ~4" from anchor bolt. Very small mass of supported equipment; this is not considered to be a seismic integrity concern.

Evaluated by: Glenn Gardner  Date: 7/13/12

Evaluated by: Ronald Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-066



Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-067AWC # KW-WB-003Status Y N UEquipment ID No. 16572 Equip. Class 18Equipment Description D/G Room 1A DMPR Control TSLocation: Bldg. Admin Floor El. 586 Room, Area ADMIN BLDG BSMTManufacturer, Model, Etc. (optional but recommended) UNITED ELECTRIC CONTROLS CO/C302D-1038539**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-067**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Fluorescent Area Lighting S-Clips were crimped in response to earlier evaluation which noted clips could disengage in seismic event. This appears to have been performed and is no longer a concern. (1994 IPEEE).
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions


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

Comments (Additional pages may be added as necessary)*Field Walkdown 7/9/12.*

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-067

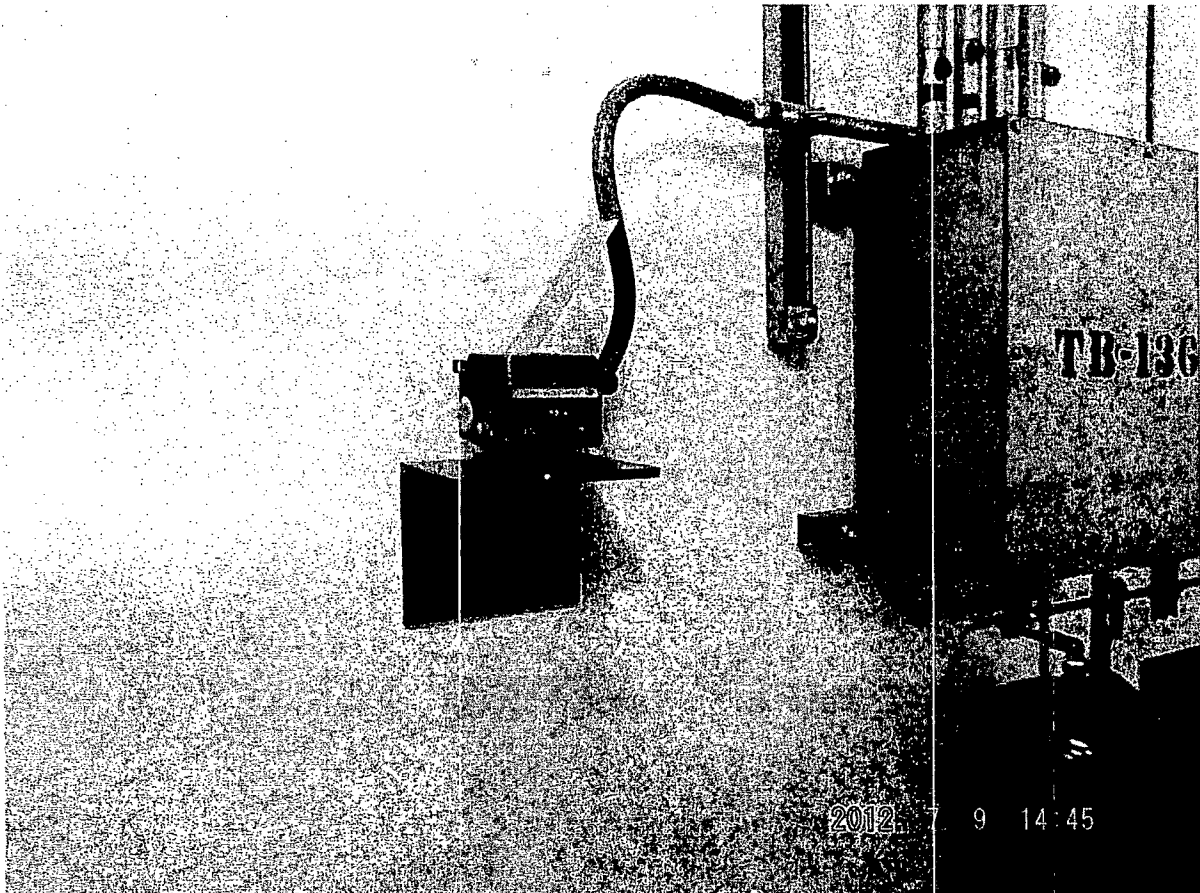
Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/7/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-067

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-068

AWC # KW-WB-028

Status Y N U

Equipment ID No. 21005 Equip. Class 18

Equipment Description SW HDR 1A Pressure Transmitter

Location: Bldg. SCRNHSE Floor El. 586 Room, Area ADMIN.TURB.& SCREENHOUSE BLD

Manufacturer, Model, Etc. (optional but recommended) FOXBORO CO/E11GM-SAB1/2493360

Instructions for Completing Checklist

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

Anchorage

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
Adjacent TB 1278 term box anchorage inaccessible. Acceptable per procedure. Y N U N/A

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-068

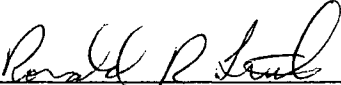
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Glenn Gardner  Date: 7/13/12

Evaluated by: ^{Ron}~~Richard~~ Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-070

AWC # KW-WB-009

Status Y N U

Equipment ID No. 21090 Equip. Class 18

Equipment Description SI Pmp 1A DSCH Pressure XMTR

Location: Bldg. AUX Floor El. 586 Room, Area REACTOR & AUX.BLDG

Manufacturer, Model, Etc. (optional but recommended) FOXBORO CO/E11GH-INH2/2214859

Instructions for Completing Checklist

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

Anchorage

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

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Note that there is a horizontal cold joint approximately 6" below the lower-most anchors. No impact on capacity of 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.)

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-070**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

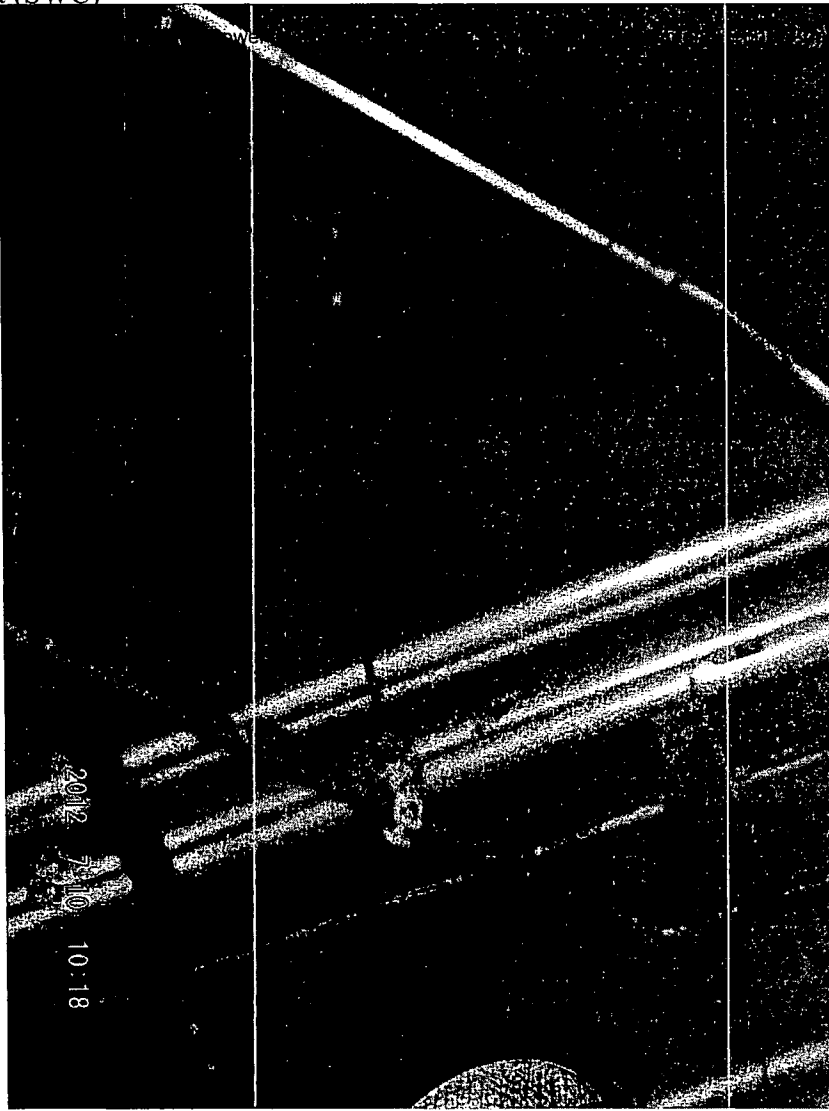
Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Bent rod support on overhead 1" NPS Station Air Line. No seismic interaction concern. Initiate CR 481261 to fix under WO.

Comments (Additional pages may be added as necessary)

SEWS 23054 Rev.1 reviewed. No impact on inspection results for 21090.

Field Walkdown 7/10/12



Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/10/12

Evaluated by: Ellery Baker *Ellery Baker* Date: 7/10/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-071

AWC # KW-WB-031

Status Y N U

Equipment ID No. 23010 Equip. Class 18

Equipment Description AFW to STM GEN 1A Flow XMTR

Location: Bldg. AUX Floor El. 586 Room, Area REACTOR & AUX.BLDG

Manufacturer, Model, Etc. (optional but recommended) ROSEMOUNT INC/1152DP5D22PM/258472

Instructions for Completing Checklist

This checklist shall 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 U

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

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Arrangement same as SEWS, an additional tubing manifold is supported on the upper portion of standard detail support (per M-755). The support is robust, and per the drawing, mounting of the valve body is acceptable. This does not challenge seismic adequacy.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-071

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

Interaction Effects

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

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

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

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

Note: 1/4" conduit 1NC 5531 extending between TB 1840 and 1841 is in contact with support. However, there is adequate flexibility to interact without damage. Seismic support is not challenged.

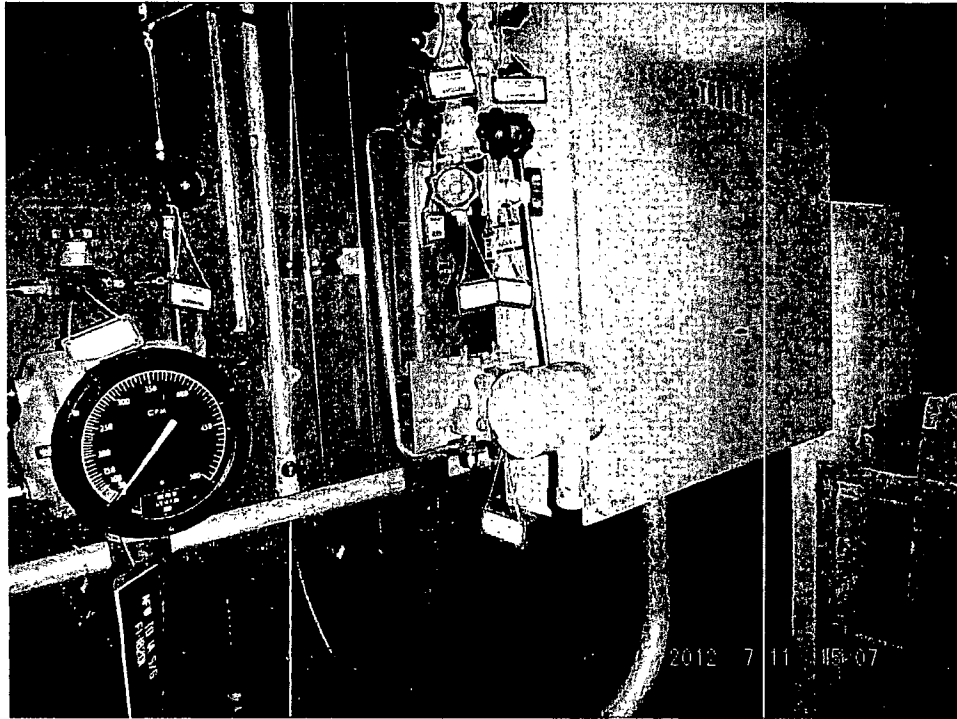
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-071



AFW Flow 23010 and standard support configuration.



Conduit is in contact with support, but does not seismically challenge the support.

Field Walkdown 7/11/12.

Evaluated by: Tim Wattleworth *Timothy Alva* Date: 7.23.12

Evaluated by: Daniel J. Vasquez *D* Date: 8/7/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-073

AWC # KW-WB-032

Status Y N U

Equipment ID No. 24040 Equip. Class 18

Equipment Description RWST Level XMTR (LT-920)

Location: Bldg. AUX Floor El. 586 Room, Area _____

Manufacturer, Model, Etc. (optional but recommended) FOXBORO CO/N-E11GM-HIB1-E/4607393

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-073

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/10/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-073

Comments (continuation page)

Field Walkdown 7/10/12

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-074**AWC #** KW-WB-017Status Y N U Equipment ID No. 26018 Equip. Class 18Equipment Description Controller: CCW Pumps 1A/1B DSCH PCLocation: Bldg. AUX Floor El. 606 Room, Area REACTOR & AUX.BLDGManufacturer, Model, Etc. (optional but recommended) ITT BARTON INSTRUMENTS CO/288A/224/6693**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-074

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

Interaction Effects

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

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


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

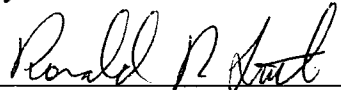
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Glenn Gardner  Date: 7/13/12

Evaluated by: Ronald Little  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-075

AWC # KW-WB-024

Status Y N U

Equipment ID No. 26330 Equip. Class 18

Equipment Description Control RM A/C 1A Cooling WTR TC

Location: Bldg. AUX Floor El. 642 Room, Area Control Room Air Conditioning Room

Manufacturer, Model, Etc. (optional but recommended) PENN CONTROLS INC/A80ABA-2

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-075

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Controller is mounted to unistrut support which is mounted to an embedded strut via two bolts. Inspected from floor and with photos. No anchorage concerns.

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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


Comments (Additional pages may be added as necessary)*Field Walkdown 7/11/12*

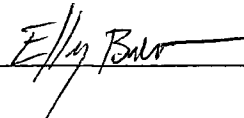
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-075

Comments (Additional pages may be added as necessary)

N/A

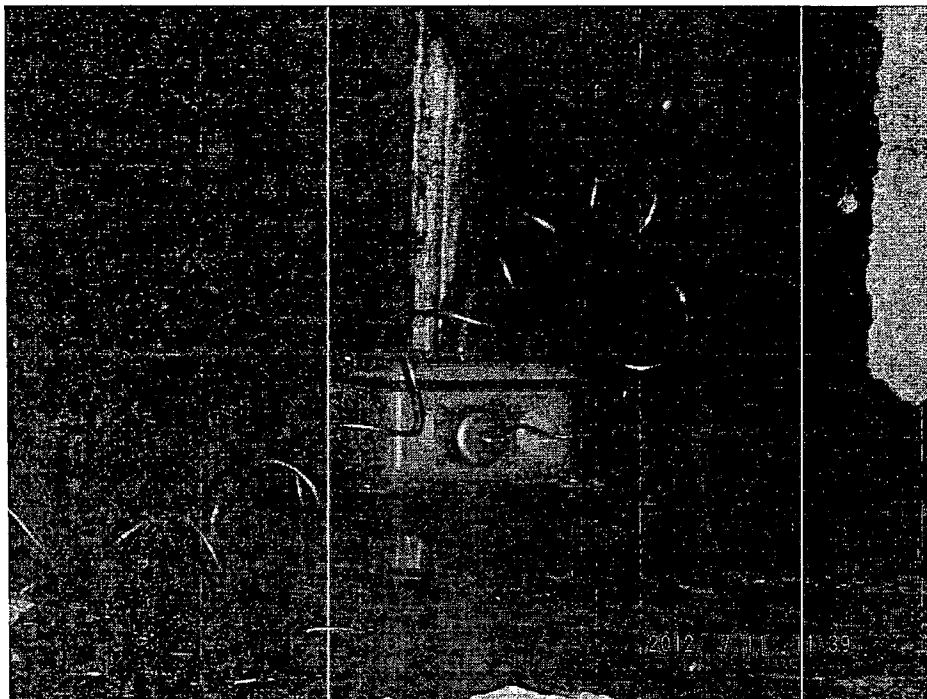
Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/11/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-075

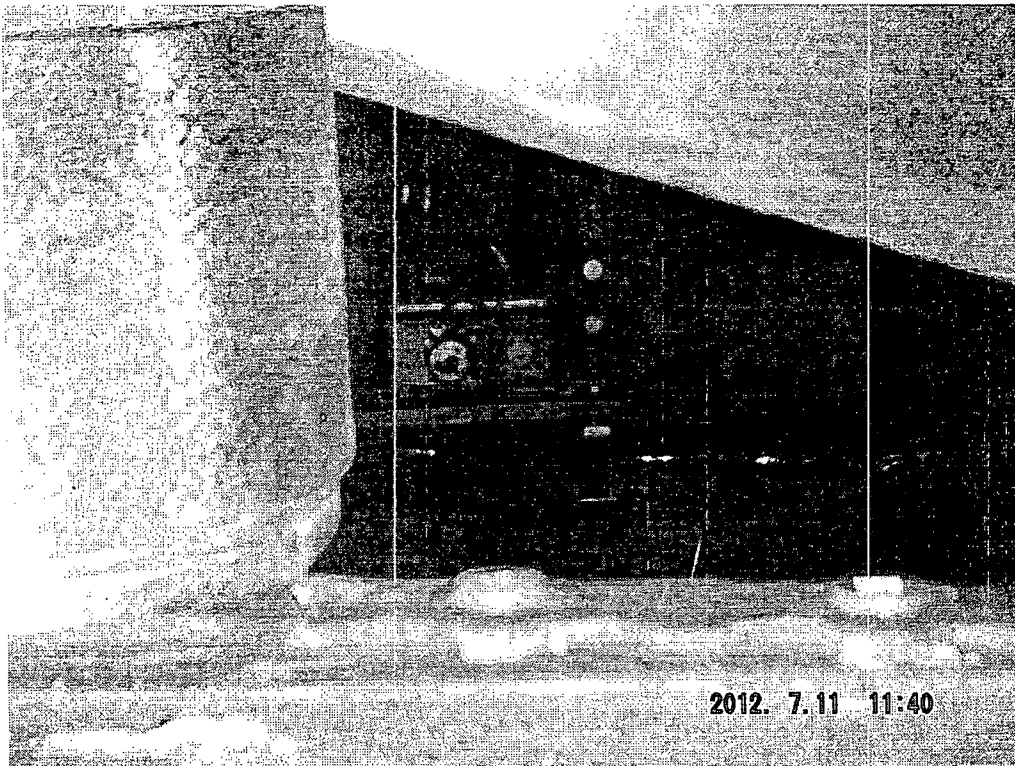
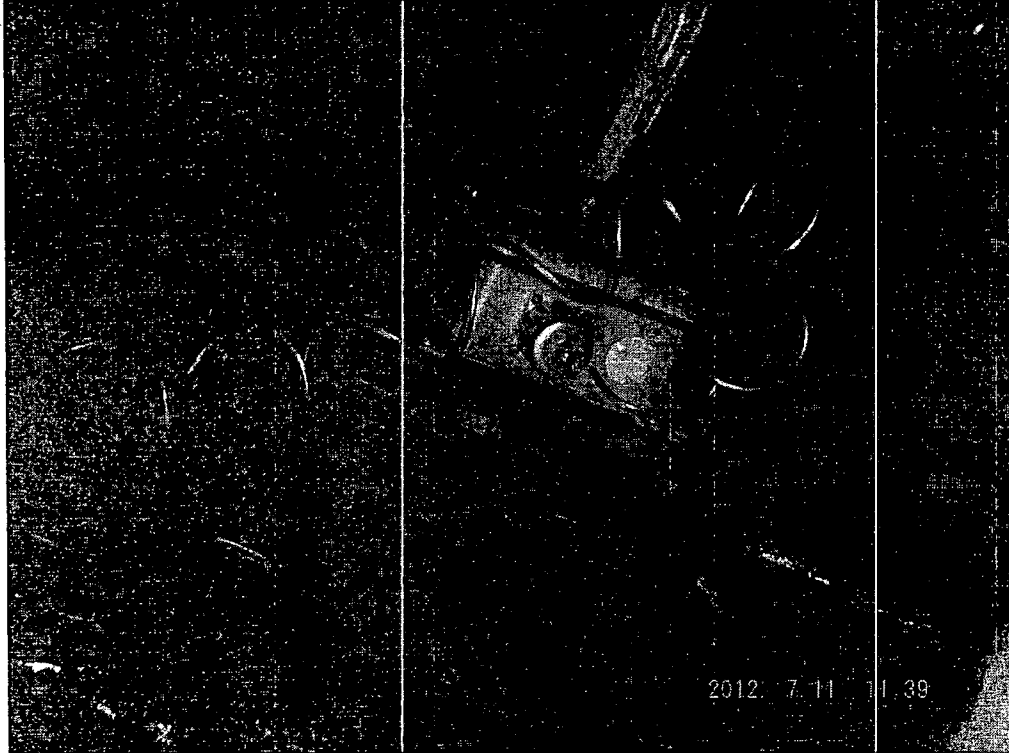
Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-075

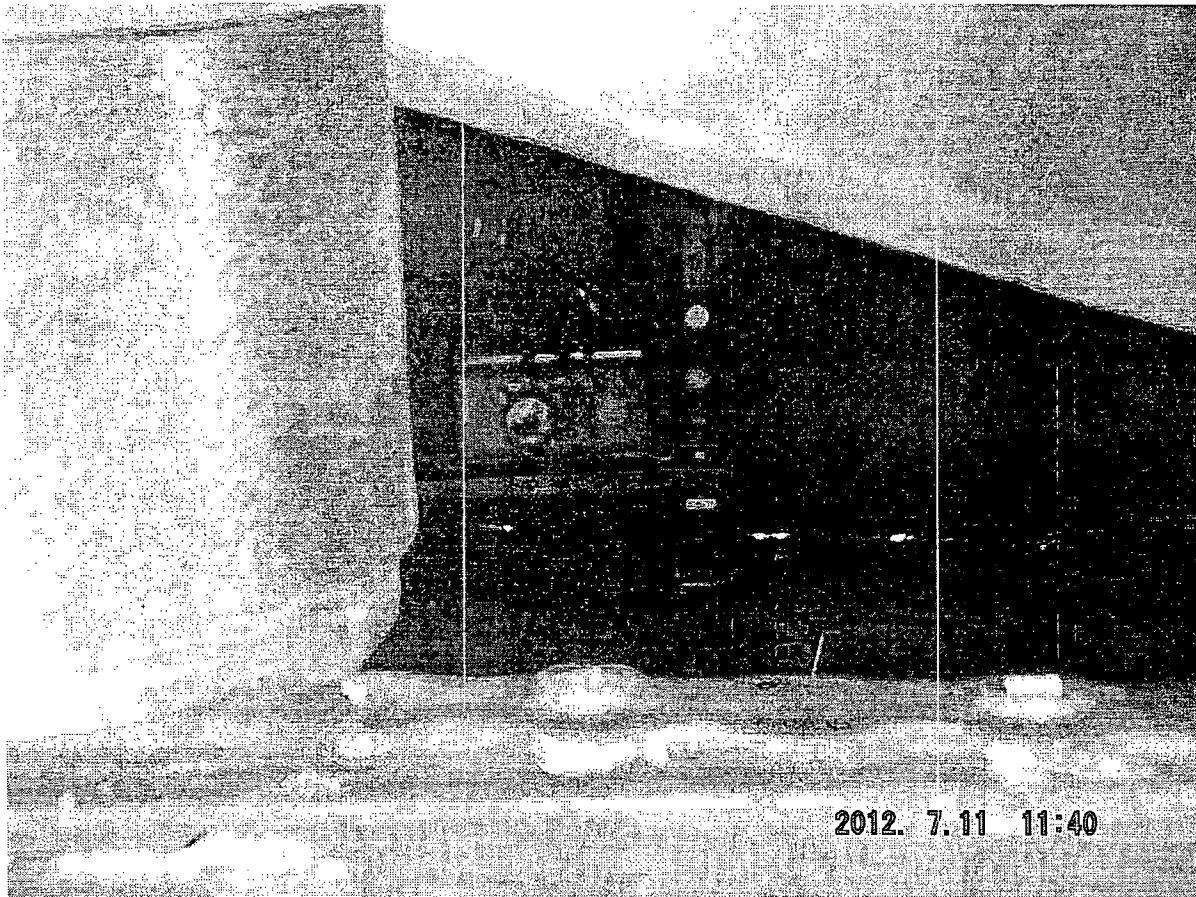
Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-075

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-076

AWC # KW-WB-003

Status Y N U

Equipment ID No. 36073 Equip. Class 18

Equipment Description EDG RM 1A Damper Control/SV 33876

Location: Bldg. ADMIN Floor El. 586' Room, Area "A" Diesel Generator Room

Manufacturer, Model, Etc: (optional but recommended) ITT CONOFLOW CORP, GFH25XT1767F

Instructions for Completing Checklist

This checklist shall 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
FXT

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-076

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-076

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-078AWC # KW-WB-015Status Y N U Equipment ID No. BRA101N Equip. Class 20Equipment Description BRA101N Fuse Cabinet (NEG)Location: Bldg. TURB Floor El. 606' Room, Area "A" Battery RoomManufacturer, Model, Etc. (optional but recommended) COMMONWELTH ELECTRICAL CO, TS-E836**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-078

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Battery Room Exhaust fan 1A, above cabinet on north wall, is well supported/evaluated.

- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Lighting secured per IPEEE recommendation to crimp S-hooks.

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

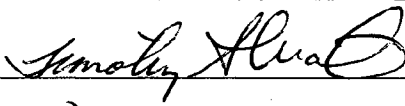
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U


Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/12/12

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 7/8/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-078

Comments (continuation page)

None.

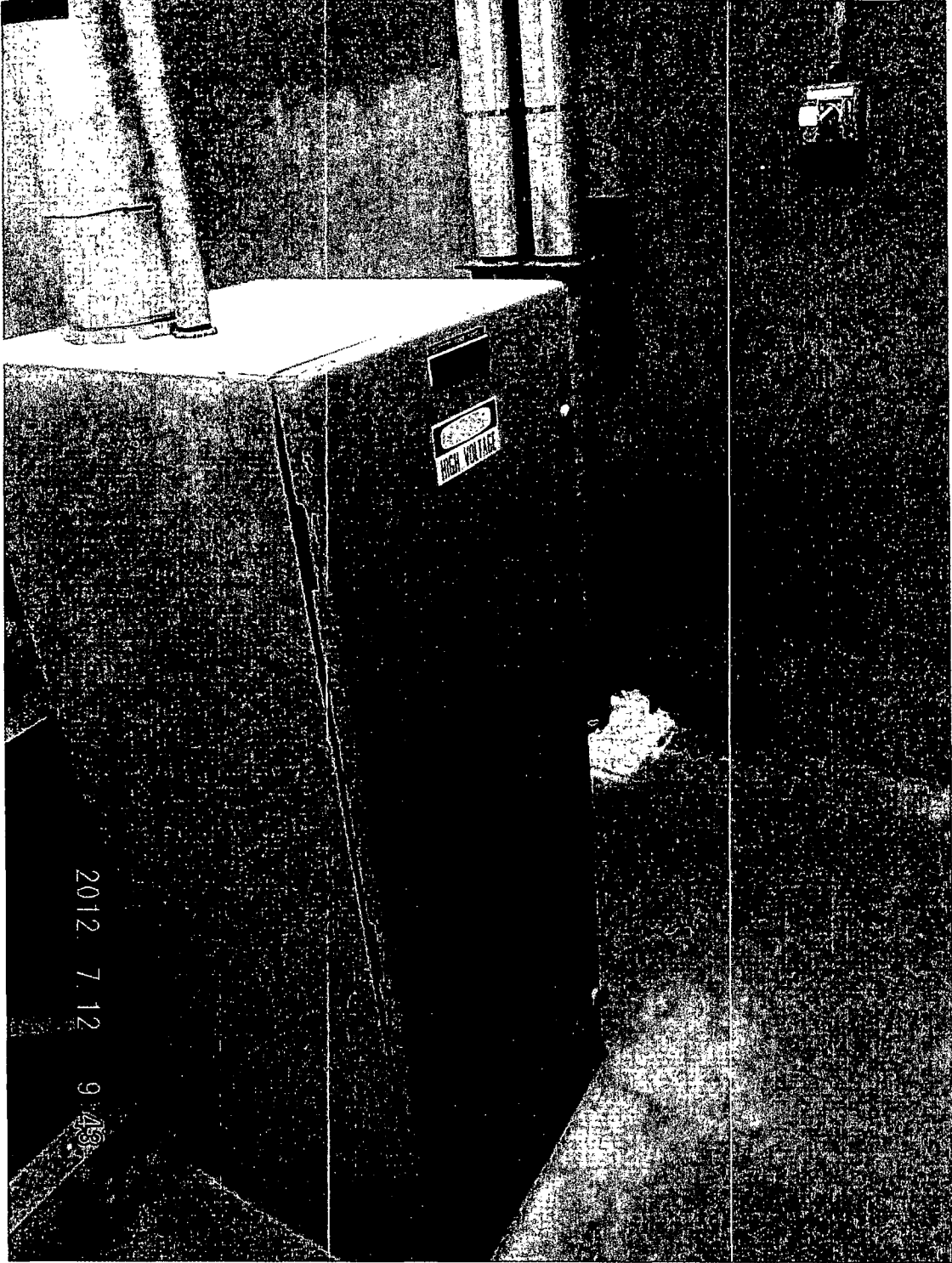
Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-078



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-078



Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-079AWC # KW-WB-022Status Y N U Equipment ID No. CR107 Equip. Class 20Equipment Description Mechanical Control Vertical Panel BLocation: Bldg. AUX Floor El. 626' Room, Area Control RoomManufacturer, Model, Etc. (optional but recommended) Reliance Electric Co.**Instructions for Completing Checklist**

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Bolts that are missing nuts or less than full thread engagement match as described in Incident Report 92-038, which also demonstrates seismic adequacy of the anchorage.

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
See question 2 above, KW-REPORT-SEW-CR107, and drawing S-338.

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-079

Interaction Effects

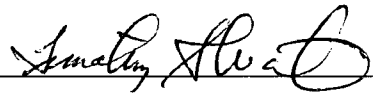
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/25/12

Evaluated by: Tim Wattleworth  Date: 7/25/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-079

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-080

AWC # KW-WB-022

Status Y N U

Equipment ID No. CR112 Equip. Class 20

Equipment Description Mechanical Control Vertical Panel C

Location: Bldg. AUX Floor El. 626' Room, Area Control Room

Manufacturer, Model, Etc. (optional but recommended) Westinghouse Electric Co.

Instructions for Completing Checklist

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Bolts that are missing nuts or less than full thread engagement match as described in Incident Report 92-038, which also demonstrates seismic adequacy of the anchorage.

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-080

Interaction Effects

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

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

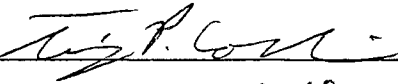
- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A


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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/25/12

Evaluated by: Tim Wattleworth  Date: 7/25/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-080

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-081

AWC # KW-WB-022

Status Y N U

Equipment ID No. CR105 Equip. Class 20

Equipment Description Electrical Vert Panel A

Location: Bldg. AUX Floor El. 626' Room, Area Control Room

Manufacturer, Model, Etc. (optional but recommended) RELIANCE ELECTRIC CO, NF

Instructions for Completing Checklist

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

Anchorage

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

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

- *Rear of panel; 3rd, 4th, 5th anchors from North do not have full thread engagement (~2, 3, 2 threads respectively below top nut).*
- *SE anchor at front of panel obscured*
- *Since these anchors are unchanged since USI A-U6, it is assumed that these anchors were considered acceptable for effective load transfer. As documented in CR 481654, both SWEs agree that the lack of full thread engagement is acceptable. As noted below, the as-found configuration is bounded by MVP B.*

Note: SEWS CR107 mechanical vertical panel B 1992 review noted poor thread engagement. This was reviewed in incident report # 92-038 (3/11/92). The worst case panel MVP B was found to be adequately anchored for seismic conditions. MVP B has more bolts with poor thread engagement than EVP-A, therefore the analysis envelops EVP-1A. EVP-1A is acceptable to resist seismic loading as found.

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

Minor mild surface corrosion present at isolated locations.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-081

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
- *Concrete free of cracks at visible locations*
 - *At rear of cabinet, minor spall, or casting voids in the grout were noted at anchor locations these spalls or voids do not fully encompass the anchors and do not challenge stiffness. Seismically acceptable as found.*
5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Block wall adjacent to the North was reviewed as accepted by SEWS.
8. Are overhead equipment, distribution systems, using ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
- *Fiber optic cable tray 4"x4" supported double unistrut and angle at wall (based on review of area trays, etc. are well supported) restraint visible at angle. Could not see unistrut bolts.*
 - *Note: S/C-E-DCR 3089-6 indicates 3/8" fasteners were used.*
 - *Light hanger chains are crimped per IPEEE recommendation.*
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-081

Other Adverse Conditions

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

The panel face vertical to overhanging panel joint was originally stiffened with a 2x2x1/4" angle. This was noted to have been removed below annunciator displays 4709 & 4710 (the angle is present in middle section). Based on review, this was performed during DCR 849 to accommodate the displays. The removal of the stiffener was reviewed under calculation S-1219-MI-003 (4/23/91). The panel was found to be seismically adequate.

Comments (Additional pages may be added as necessary)

Field Walkdown 7/13/12

Evaluated by: Tim Wattleworth *[Signature]* for T. Wattleworth Date: 9/17/12

Evaluated by: Daniel J. Vasquez *[Signature]* Date: 9/17/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-082

AWC # KW-WB-022

Status Y N U

Equipment ID No. CR106 Equip. Class 20

Equipment Description Mechanical Vert Panel A

Location: Bldg. AUX Floor El. 626' Room, Area Control Room

Manufacturer, Model, Etc. (optional but recommended) RELIANCE ELECTRIC CO, NF

Instructions for Completing Checklist

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
Some of the anchors on back of panel were noted to have less than full thread engagement. SEWS form eliminates bolts with greater than 2 un-engaged threads. Less than 2 threads un-engaged were apparently considered adequate for effective load transfer. As documented in CR 481656, both SWEs agree that the lack of full thread engagement on the identified anchors is acceptable. SEWS form for CR107 on MVP-1B, 1992, noted the poor engagement. This was reviewed in incident report #92-038 (3/11/92). The worst case panel anchorage was on MVP-1B, which the analysis found to be adequately anchored for seismic conditions. MVP-1B envelopes MVP-1A (CR106). Therefore, the as-found configuration is consistent with the SEWS and MVP-1A anchorage is acceptable as found.

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-082

- 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.)
Thread engagement issues were considered during USI A-46 and accounted for. Y N U N/A

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

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/13/12

Evaluated by: Tim Wattleworth *A for T. Wattleworth* Date: 9/17/12

Evaluated by: Daniel J. Vasquez *A* Date: 9/17/12

Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-083**AWC #** KW-WB-003Status Y N U Equipment ID No. DR101 Equip. Class 20Equipment Description EDG Control Cabinet 1ALocation: Bldg. ADMIN Floor El. 586' Room, Area "A" Diesel Generator RoomManufacturer, Model, Etc. (optional but recommended) WESTERN ENGINE, SS-M454**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-083

Interaction Effects

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

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

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

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

Other Adverse Conditions

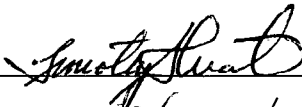
- 11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Comments (Additional pages may be added as necessary)

Grout pad under north side of cabinet (adjacent to north building wall) is visible from outside of cabinet, but does not show on interior. Anchor bolts appear tight and there is no noticeable deformation of the cabinet flange.

Field Walkdown 7/9/12.

Evaluated by: Tim Wattleworth



Date: 7.23.12

Evaluated by: Ronald R. Little



Date: 7/23/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-083

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-084

AWC # KW-WB-003

Status Y N U

Equipment ID No. DR102 Equip. Class 20

Equipment Description DR102 Logic Panel 1A 4 kv

Location: Bldg. ADMIN Floor El. 586' Room, Area "A" Diesel Generator Room

Manufacturer, Model, Etc. (optional but recommended) BARNES ENGINEERING CO, SPEC TS-E381

Instructions for Completing Checklist

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

Anchorage

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

2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
NE Corner Loose Anchor Bolt. See photo. Cabinet is bolted to adjacent DR-103, therefore seismic support is not challenged. CR481151 was written to request tightening or replacement with a shorter bolt, additional washer, etc., as needed to bring the bolt into firm contact with the cabinet.

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

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

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

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
Loose anchor bolt does not impact seismic stability, remaining anchors and cabinets bolted together are rigid and well supported.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-084

Interaction Effects

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

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

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

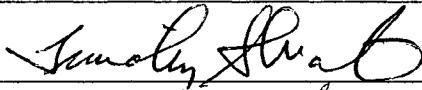
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

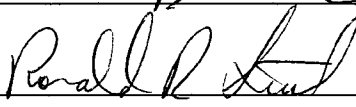
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/9/12.

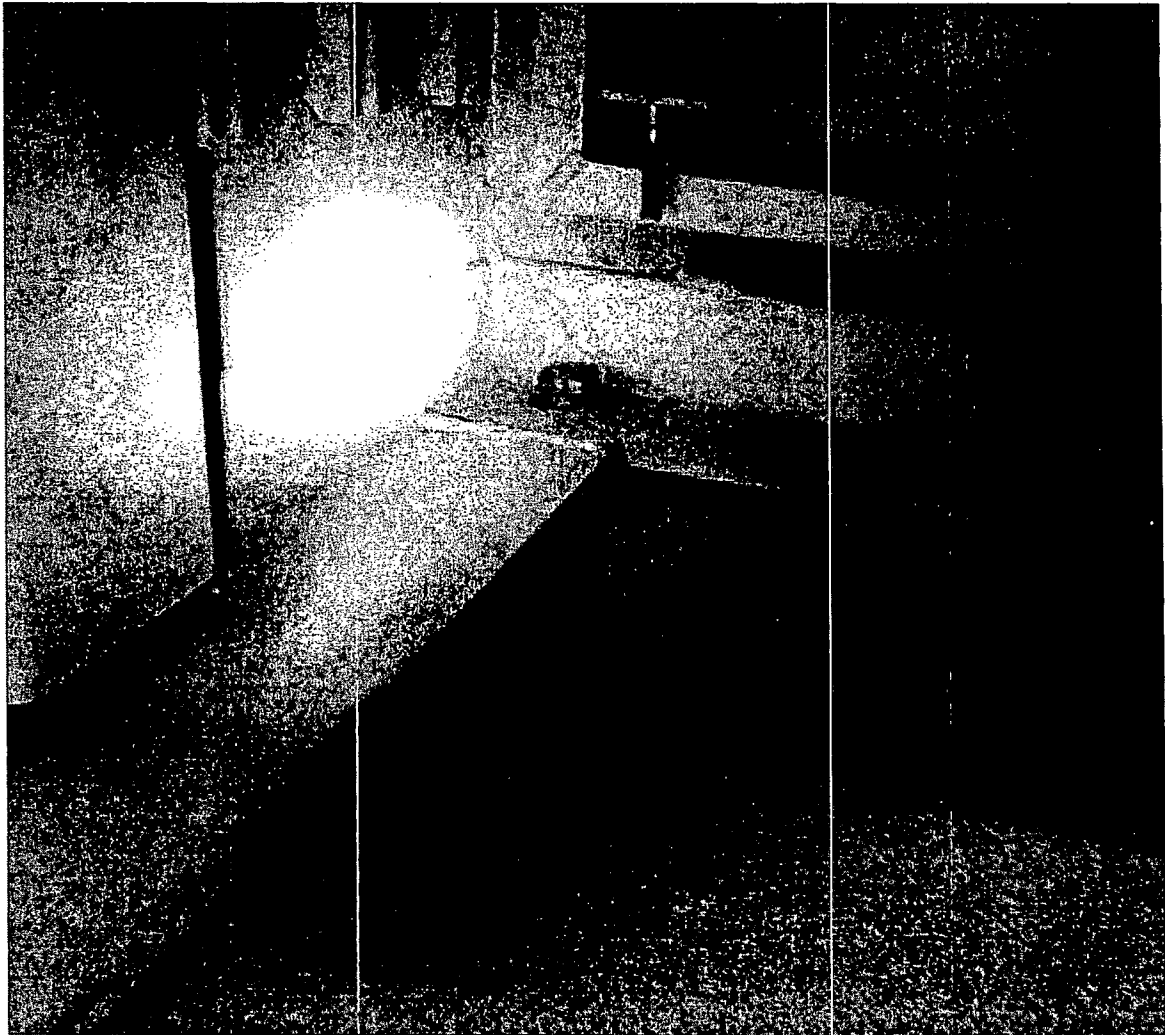
Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Ronald R. Little  Date: 7/23/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-084

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-085

AWC # KW-WB-028

Status Y N U

Equipment ID No. DR108 Equip. Class 20

Equipment Description Aux Relay Panel

Location: Bldg. ADMIN Floor El. 586' Room, Area Tunnel Area Between Doors 1 & 2

Manufacturer, Model, Etc. (optional but recommended) LK COMSTOCK & CO OF ILLINOIS, NA

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-085

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: EVERY BAKER Ely M Date: 7/13/12

Evaluated by: Tim Corbin Tim D. Corbin Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-085

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-086

AWC # KW-WB-025

Status Y N U

Equipment ID No. FR101 Equip. Class 20

Equipment Description Steam Exclusion Logic Panel 1A

Location: Bldg. AUX Floor El. 642' Room, Area Shield Bldg Filter Floor (west half)

Manufacturer, Model, Etc. (optional but recommended) BRIGS ELECTRIC SWITCHBOARD CO, TS-E639

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-086

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
- 8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
- 9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
- 10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Confirmed that racks FR101 thru FR106 have been tied together via steel plates and fasteners on top of the cabinets (Resolved IPEEE outlier).

Evaluated by: ELLERY BAKER *Ellery Baker* Date: 7/13/12

Evaluated by: Tim Corbin *Tim Corbin* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-086

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-087

AWC # KW-WB-018

Status Y N U

Equipment ID No. ISBDIV Equip. Class 20

Equipment Description Inst Bus 4 Sub Dist. Cabinet

Location: Bldg. AUX Floor El. 606' Room, Area MCC52B Hallway north to stairwell

Manufacturer, Model, Etc. (optional but recommended) HEINEMANN ELECTRIC CO, AM12

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-087

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: ELERY BAKER Elery Baker Date: 7/13/12

Evaluated by: Jim Corbin Jim P. Corbin Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-087

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-089

AWC # KW-WB-019

Status Y N U

Equipment ID No. RR104 Equip. Class 20

Equipment Description Safety Inj/Aux Coolant ICI

Location: Bldg. AUX Floor El. 606' Room, Area Relay Room

Manufacturer, Model, Etc. (optional but recommended) WESTINGHOUSE ELECTRIC CO, NA

Instructions for Completing Checklist

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

Anchorage

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

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

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

Mild surface corrosion on rear left bolt of cabinet.

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-089

Interaction Effects

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

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

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

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

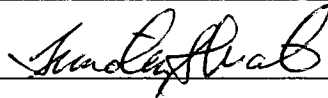
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/10/12.

Evaluated by: Tim Wattleworth



Date: 7-23-12

Evaluated by: Daniel J. Vasquez



Date: 8/7/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-089

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-090AWC # KW-WB-019Status Y N U Equipment ID No. RR119 Equip. Class 20Equipment Description Reactor Coolant RC-1 (IC128)Location: Bldg. AUX Floor El. 606' Room, Area Relay RoomManufacturer, Model, Etc. (optional but recommended) FOXBORO CO, NA**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Hairline crack near southeast anchor; not a structural concern.
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.)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-090

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin

Tim P. Corbin

Date:

7/13/12

Evaluated by: Ellery Baker

Ellery Baker

Date:

7/13/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-091AWC # KW-WB-019Status Y N U Equipment ID No. RR128 Equip. Class 20Equipment Description Engineered Safeguard Train ALocation: Bldg. AUX Floor El. 606' Room, Area Relay RoomManufacturer, Model, Etc. (optional but recommended) WESTINGHOUSE ELECTRIC CO, G677033**Instructions for Completing Checklist**

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

Anchorage

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

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

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

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Minor surficial scrapes were noted under the cabinet (possibly from installation), and a small area of material loss at the edge of the NW grouted anchor hole were noted. Minor edge loss is common when grouts are tapered to a thin cross section. Per S-324 Detail B the cabinet anchors are 5/8" bolts grouted in cored holes. The embedment depth is 12 diameters (approximately 7.5"), which is sufficient to transfer load despite minor surface discontinuity. The anchorage is acceptable as found.

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-091

6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U
- *All four (4) anchors have the issue mentioned in item No. 4.*
-

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)*None.*

Seismic Walkdown Checklist (SWC)

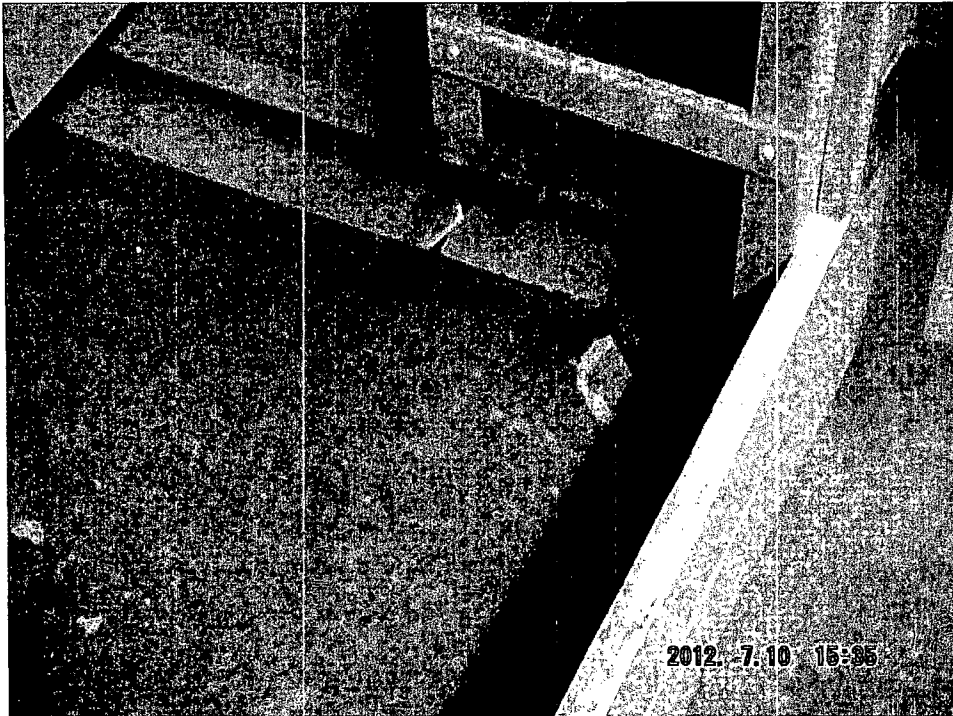
SWC # KW-WD-SWEL-091



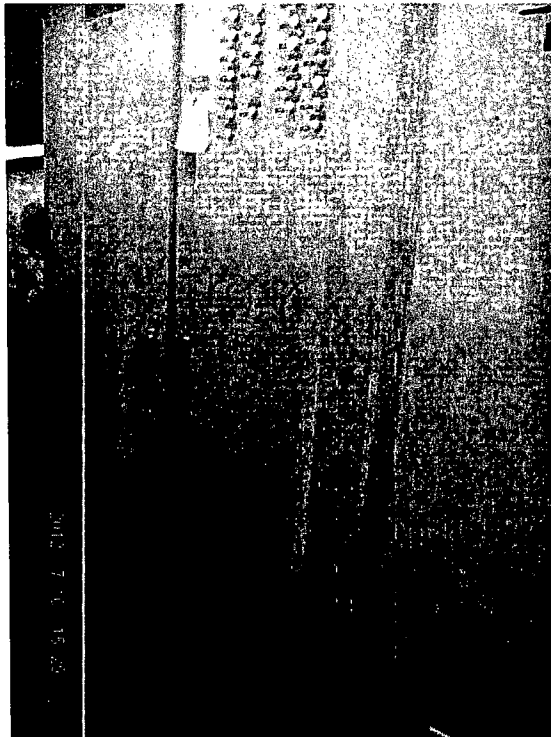
Scrapes and grout at anchor location.

Seismic Walkdown Checklist (SWC)

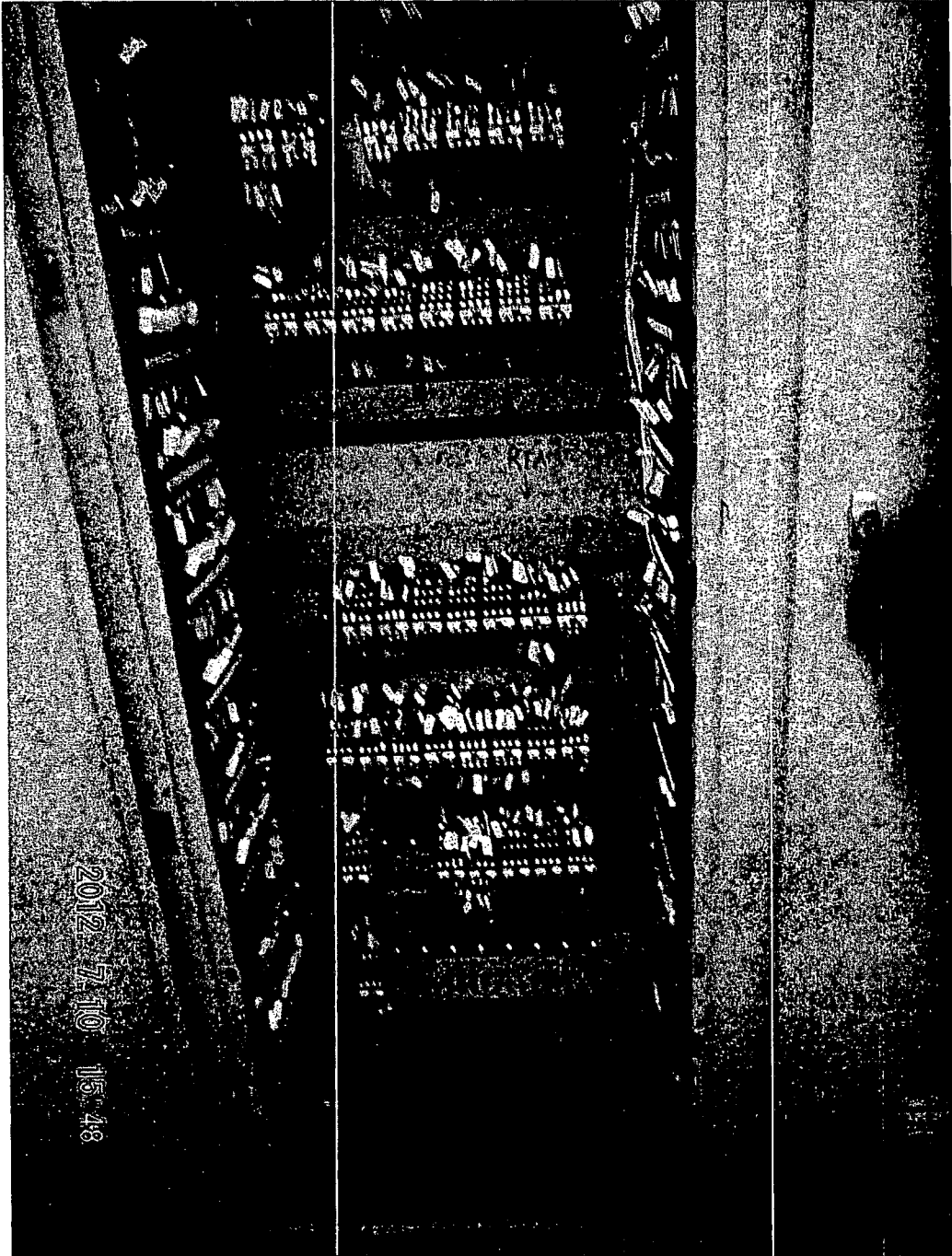
SWC # KW-WD-SWEL-091



Anchor location with minor edge loss at tapered edge.



Exterior RR-128 & RR-129



Interior

Field Walkdown 7/10/12

Evaluated by: Tim Wattleworth *Tim Wattleworth* Date: 7-23-12

Evaluated by: Daniel J. Vasquez *DJ Vasquez* Date: 8/7/12

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-092AWC # KW-WB-019Status Y N UEquipment ID No. RR130 Equip. Class 20Equipment Description Reactor Protection Train ALocation: Bldg. AUX Floor El. 606' Room, Area Relay RoomManufacturer, Model, Etc. (optional but recommended) WESTINGHOUSE ELECTRIC CO, G677033**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
RR-132 S-E anchor has a minor gap between F.F. and grout for grouted anchor. Determined to be a legacy issue from construction due to very localized condition and sat. adhesion of 90% of grout perimeter.

RR-134 S-E anchor has surface hairline crack passing through anchor hole location; determined not to be a structural concern.
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.)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-092

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

Interaction Effects

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

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Inspected inside RR-130, RR-132 and RR-134 to see all of the anchors for the cabinet.

Evaluated by: ELLERY BAKER Ellen Baker Date: 7/13/12

Evaluated by: Tim Corbin Tim P. Corbin Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-093

AWC # KW-WB-019

Status Y N U

Equipment ID No. RR143 Equip. Class 20

Equipment Description Aux Relay Rack Train A

Location: Bldg. AUX Floor El. 606' Room, Area Relay Room

Manufacturer, Model, Etc. (optional but recommended) BRIGGS ELECTRIC SWITCHBOARD CO, TS-E525

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-093

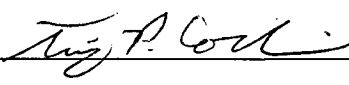
Interaction Effects


7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-093

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-094

AWC # KW-WB-019

Status Y N U

Equipment ID No. RR148 Equip. Class 20

Equipment Description Rod Position Indicator

Location: Bldg. AUX Floor El. 606' Room, Area Relay Room

Manufacturer, Model, Etc. (optional but recommended) WESTINGHOUSE ELECTRIC CO, NA

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-094

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ellery Baker *Ellery Baker* Date: 7/13/12

Evaluated by: tim Corbin *Tim P. Corbin* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-094

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-095

AWC # KW-WB-019

Status Y N U

Equipment ID No. RR175 Equip. Class 20

Equipment Description AC Fuse Panel Safeguard 6

Location: Bldg. AUX Floor El. 606' Room, Area Relay Room

Manufacturer, Model, Etc. (optional but recommended) Briggs Electric Switchboard Co.

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation?
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Confirmed using KW-REPORT-SEW-RR175 AND KW-REPORT-SEW-RR170-RR171. Y N U N/A

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

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-095**Interaction Effects**

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
Observed that S-hooks on lights are closed and emergency light unit is well-restrained.
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions


11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Observed plastic tarp on north cover plate of top had above adjacent cabinet (RR172-RR174). No interaction concern as it is well-attached. As noted in the SEWS, the cabinets in this row (RR-172-RR176) are all mounted to the wall behind them near their tops. Thus the cabinets will not interact with one another in a seismic event.

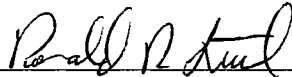
Comments (Additional pages may be added as necessary)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-095

Evaluated by: Tim Corbin  Date: 7/17/12

Evaluated by: Ronald R. Little  Date: 7/17/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-095

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-096AWC # KW-WB-001Status Y N U Equipment ID No. SD-100 Equip. Class 20Equipment Description Fuse Panel AC SafeguardLocation: Bldg. TURB Floor El. 586' Room, Area Safeguard Alley--"A" SwitchgearManufacturer, Model, Etc. (optional but recommended) NA**Instructions for Completing Checklist**

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

Anchorage

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-096

Interaction Effects

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

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

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

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

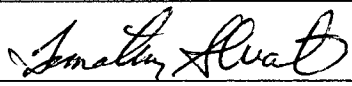
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Electrical maintenance removed the potential FME from the base of the cabinet.

Field Walkdown 7/10/12.

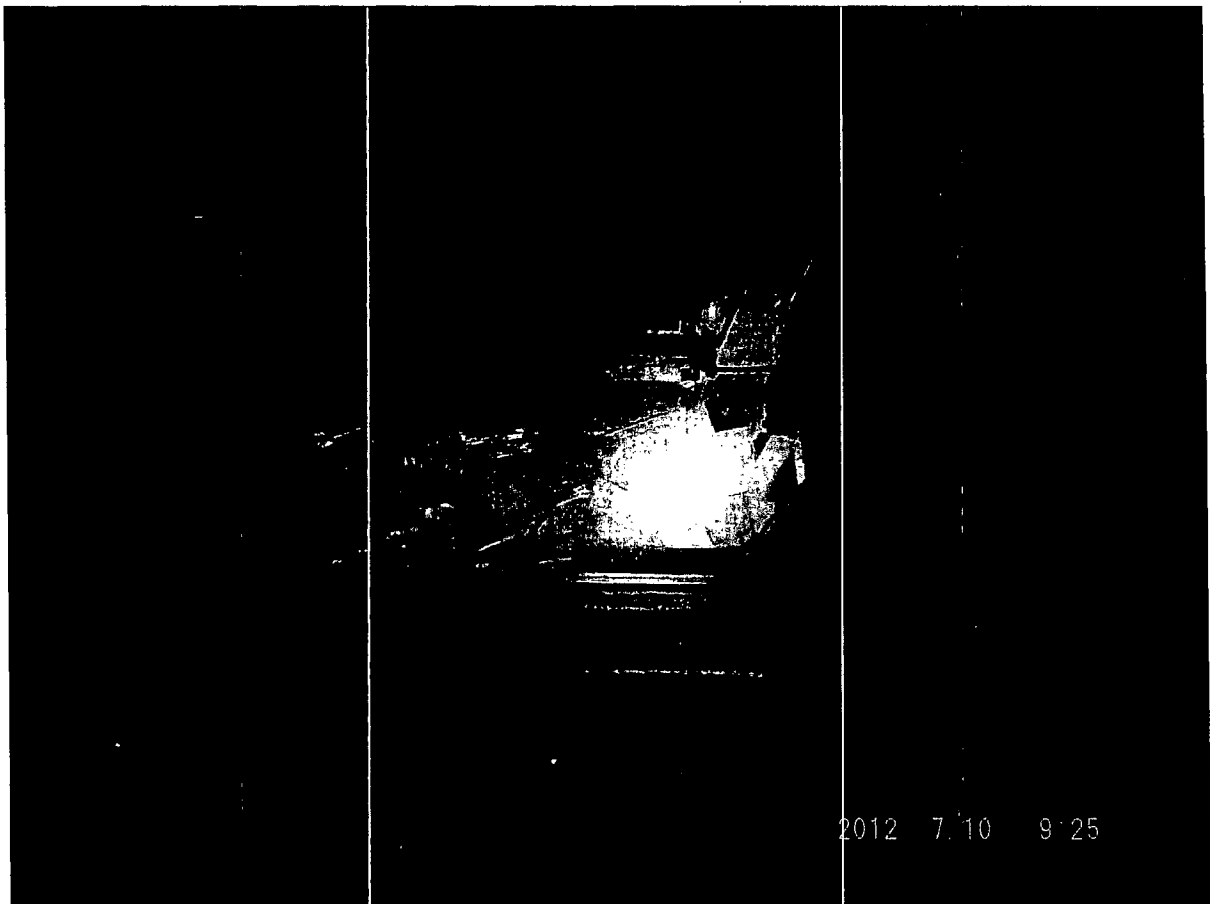
Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/2/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-096

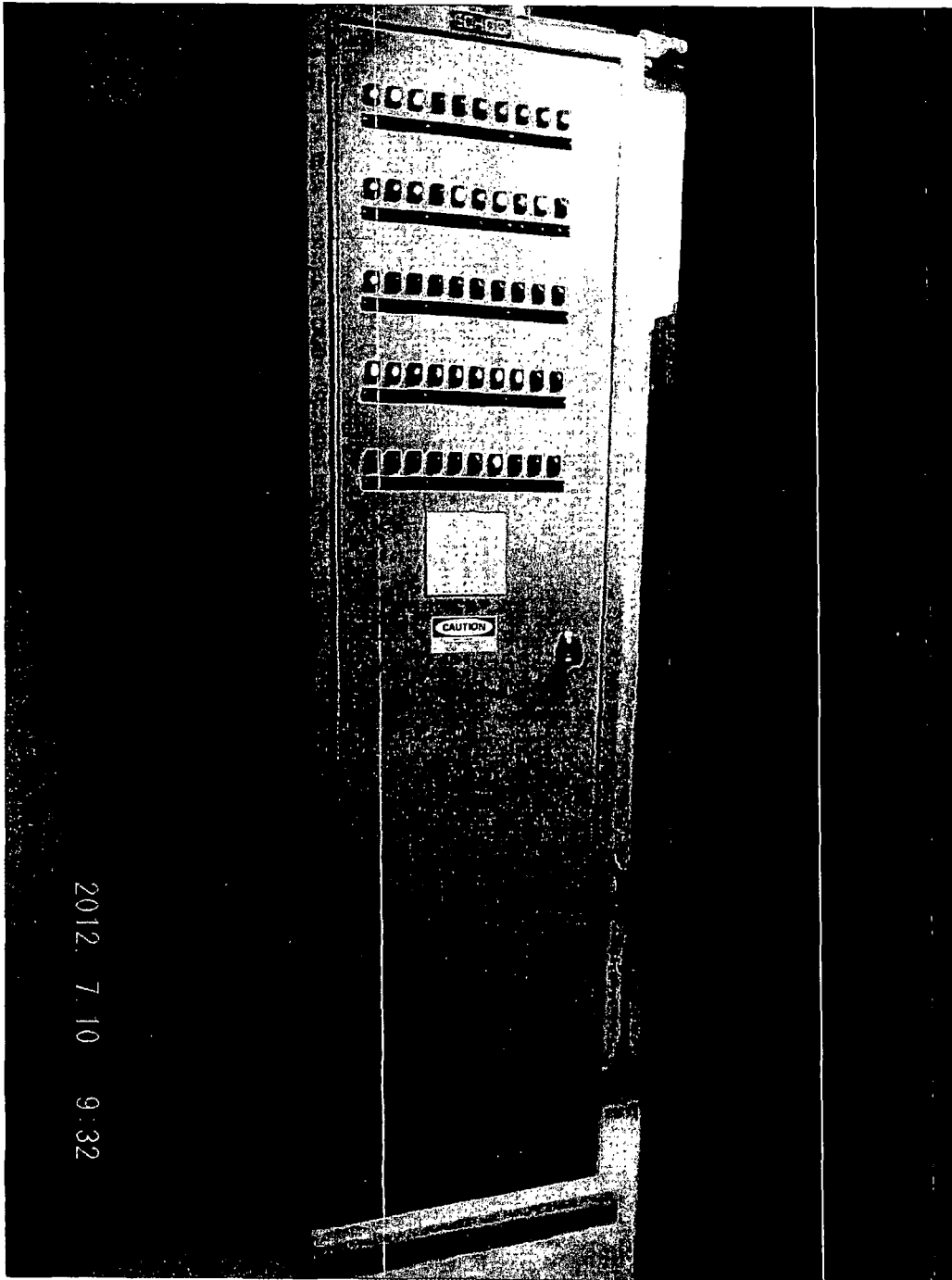
Comments (continuation page)



Potential FME Concern at the base of the cabinet (removed).

Seismic Walkdown Checklist (SWC)

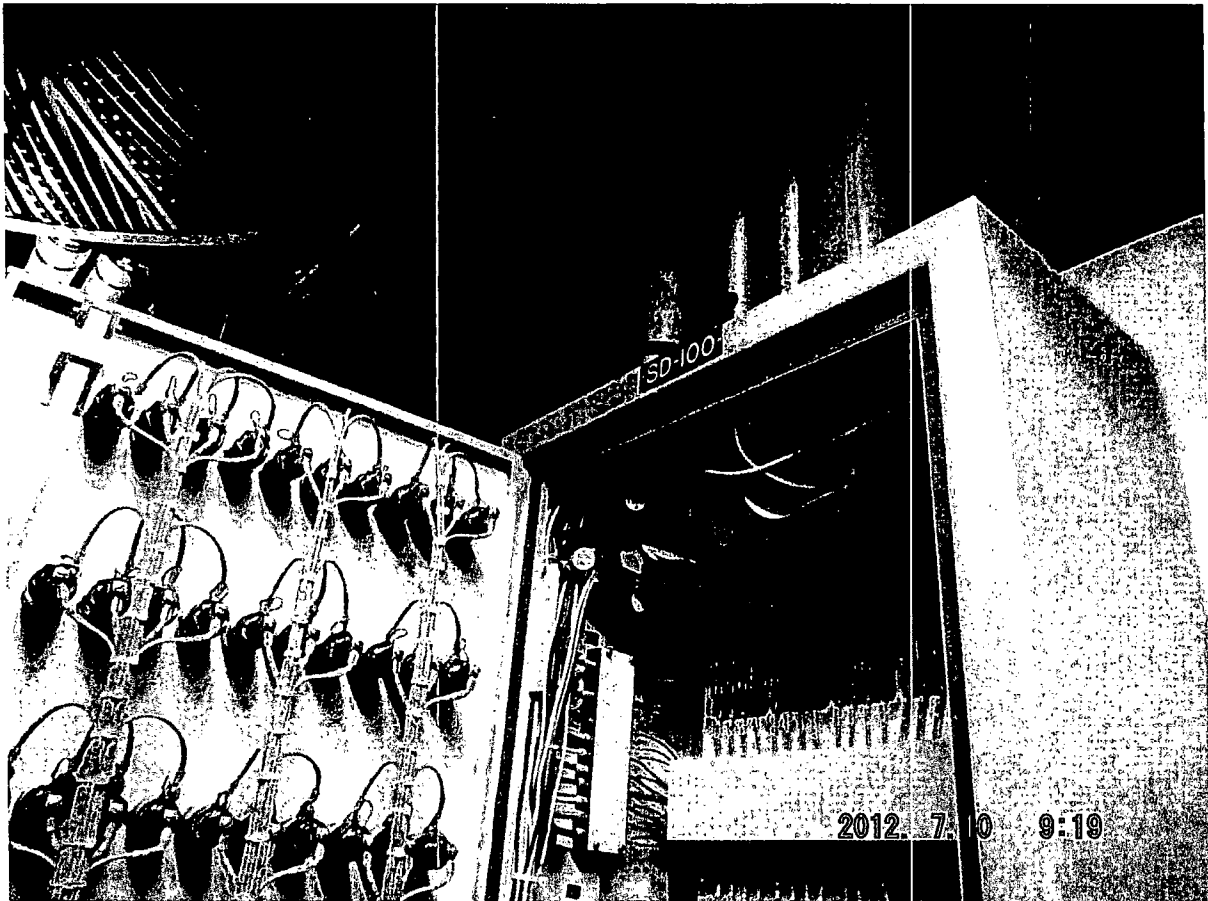
SWC # KW-WD-SWEL-096



SD-100, Fuse Panel AC Safeguard

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-096



SD-100 with door opened.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-097

AWC # KW-WB-001

Status Y N U

Equipment ID No. SD-103 Equip. Class 20

Equipment Description Dedicated Shutdown Analog Control Panel

Location: Bldg. TURB Floor El. 586' Room, Area Safeguard Alley--"A" Switchgear

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

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-097

Interaction Effects

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

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

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

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

Contact @ rear of cabinet w/ duct joint overhead. SWE's judged that it is not a seismic concern.

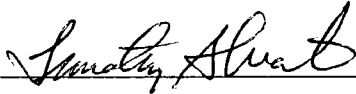
Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Pictures included show the cabinet and the internal rack support structure floor anchorage..

Field Walkdown 7/10/12

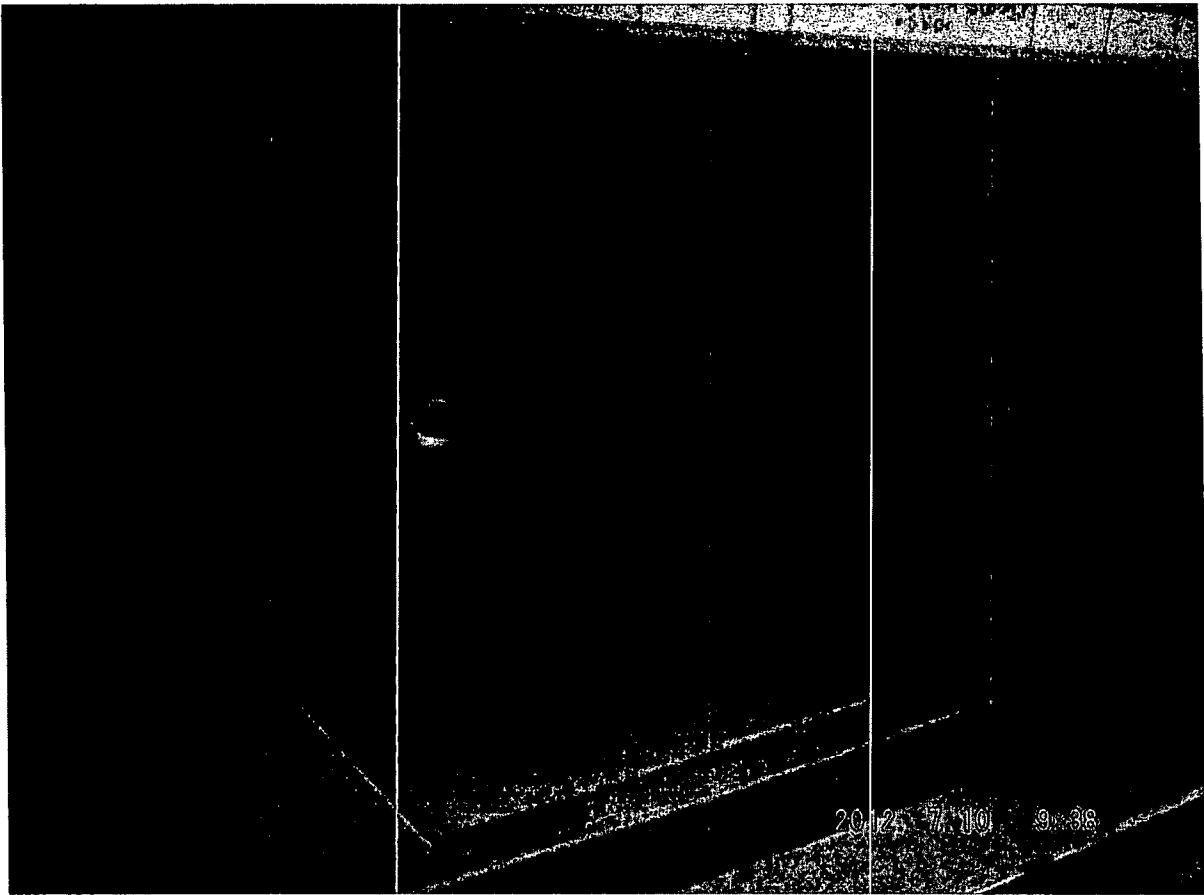
Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Seismic Walkdown Checklist (SWC)

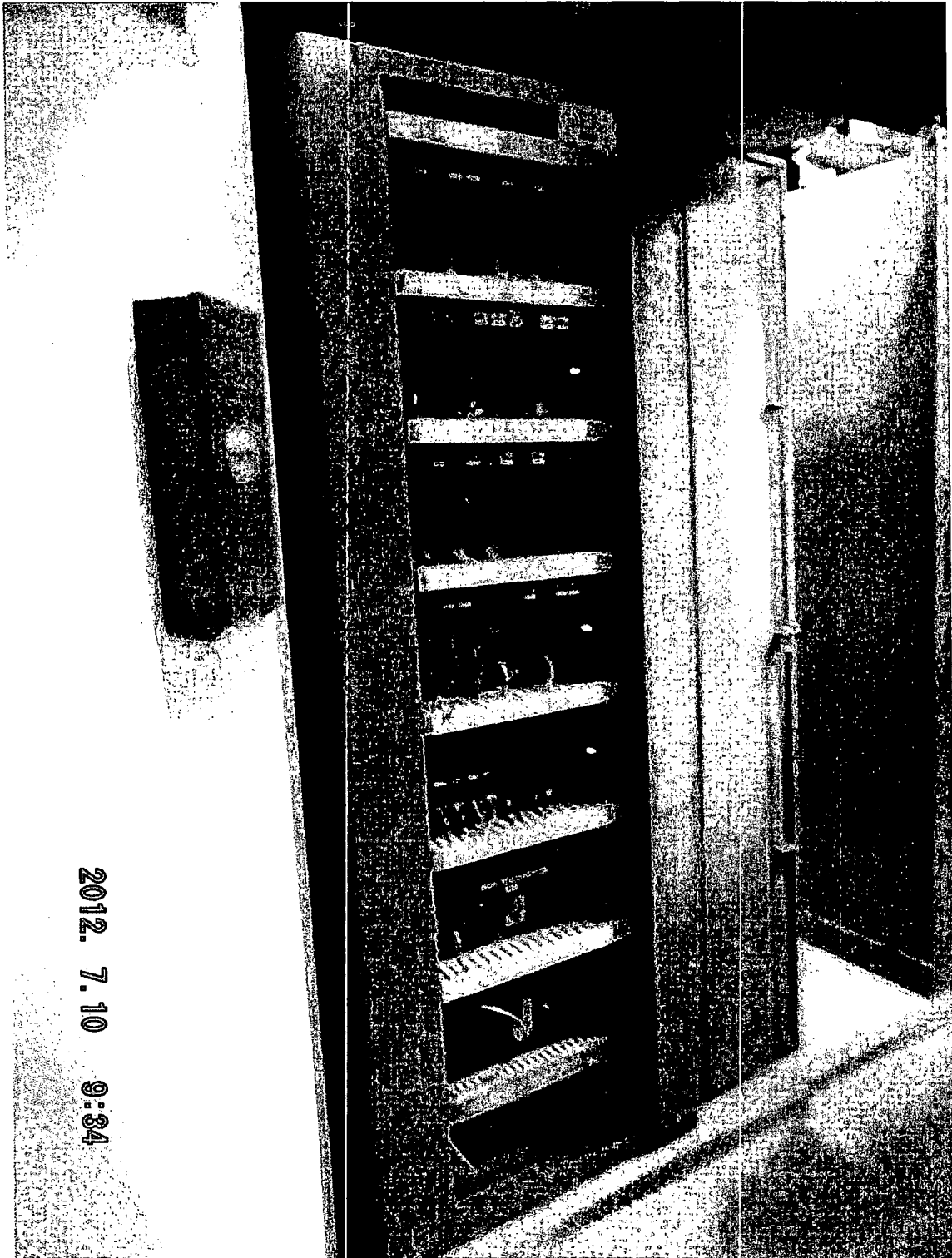
SWC # KW-WD-SWEL-097

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-097



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-098

AWC # KW-WB-026

Status Y N U

Equipment ID No. 135-051 Equip. Class 21

Equipment Description RHR HX 1A

Location: Bldg. AUX Floor El. 606' Room, Area RHR Heat Exchanger Room

Manufacturer, Model, Etc. (optional but recommended) JOSEPH OAT CORP, DWG 4927-1

Instructions for Completing Checklist

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

Anchorage

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

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

Yes *

10/18/12 Anchorage inspection: Yes

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

Yes *

10/18/12 Anchorage inspection: Yes

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

Yes *

10/18/12 Anchorage inspection: Yes

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 *

10/18/12 Anchorage inspection: Yes

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-098

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

Yes *

10/18/12 Anchorage inspection: Yes

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
As documented in original 7/13/12 inspection.

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
As documented in original 7/13/12 inspection.

9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
As documented in original 7/13/12 inspection

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
As documented in original 7/13/12 inspection.
-

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-098

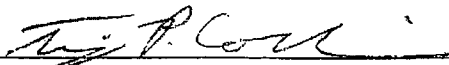
Comments (Additional pages may be added as necessary)

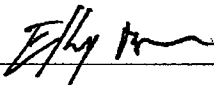
* Only 2 of the 8 anchor bolts could be seen. Need to have insulation removed from base of Heat Exchanger to inspect remaining 6 anchor bolts.

CR 481294 is initiated for insulation removal.


Follow-up inspection of all 8 anchor bolts was performed on 10/18/12 after insulation panels were removed to allow for visual inspection. Additional photos added at end of Comments.

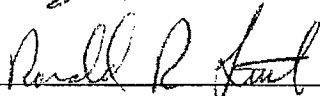
Original
7/13/12
Inspection:

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/13/12

Follow-up 10/18/12 Anchorage Inspection:

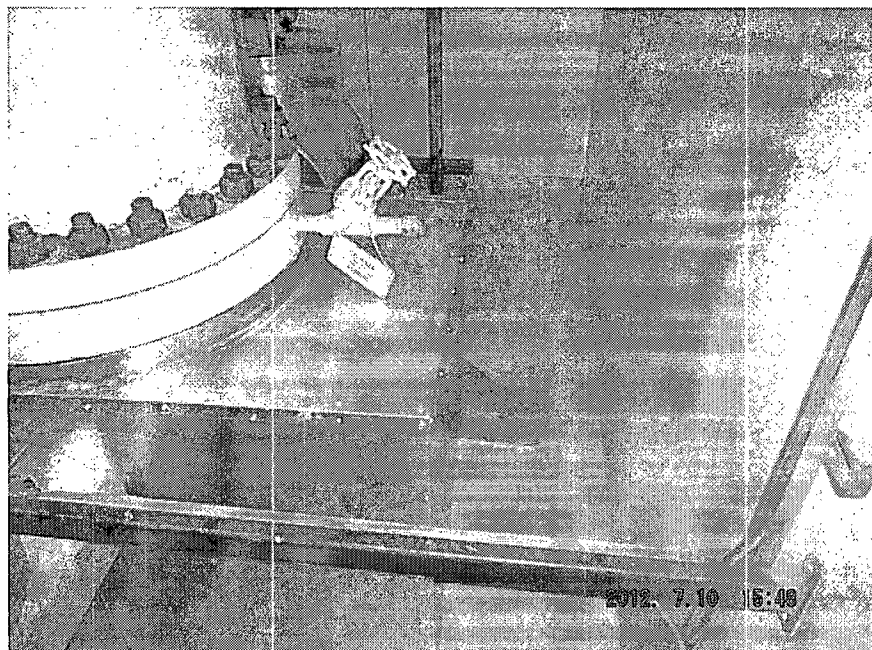
Evaluated by: Tim Corbin  Date: 10/18/12

Evaluated by: Ron Little  Date: 10/18/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-098

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-098

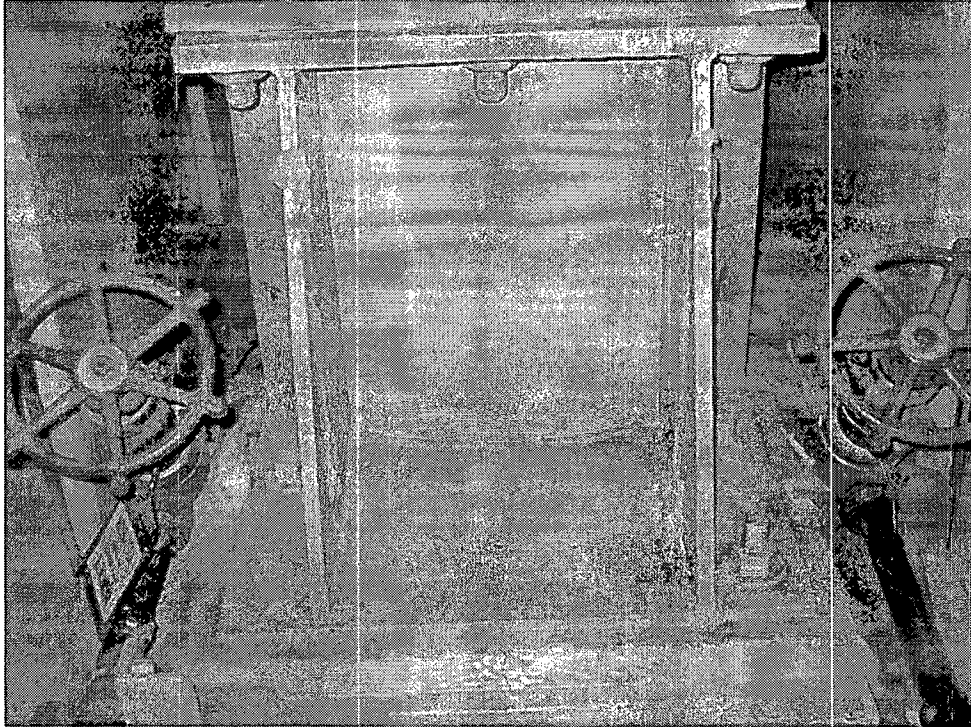
Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-098

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-099

AWG # KW-WB-016

Status Y N U

Equipment ID No. 135-081 Equip. Class 21

Equipment Description Component Cooling HX 1A

Location: Bldg. AUX Floor El. 608' Room, Area CCW Heat Exchanger Area

Manufacturer, Model, Etc. (optional but recommended) ENGINEERS & FABRICATORS CO. 36-294 NEN

Instructions for Completing Checklist

This checklist shall 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 U

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

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
The anchors do not have washers as called for on Drawing S-305. Also, some of the anchors on Component Cooling Heat Exchangers 1A and 1B do not have full thread engagement. These issues are documented in CR482165. As discussed in the condition report, these issues do not have an adverse effect on the ability of the anchors to perform their design functions.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-099

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

Interaction Effects

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

8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
Sufficient area observed in vicinity of A Hx and overhead to verify no interactions. Y N U N/A

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

10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects?
See note for Item #8 Y N U


Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment?
See note for Item #8 Y N U

Comments (Additional pages may be added as necessary)

Limited access @ B Hx, however sufficient area observed in vicinity of A Hx and overhead to determine no interactions.

Evaluated by: Glenn Gardner  Date: 7/25/12

Evaluated by: Ronald R. Little  Date: 7/25/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-099

Comments (continuation page)

None.

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-100

AWC # KW-WB-007

Status Y N U

Equipment ID No. 153-021 Equip. Class 21

Equipment Description Refueling Water Storage Tank

Location: Bldg. AUX Floor El. 586' Room, Area Inside RWST Shield Structure

Manufacturer, Model, Etc. (optional but recommended) GATX, FIELD FABRICATED

Instructions for Completing Checklist

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

Anchorage

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

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

3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
Minor corrosion "bleeding" through epoxy coatings. Some of the coatings are chipping off.

4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
Foundation has minor hairline cracks: no structural concern.

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.)

Seismic Walkdown Checklist (SWC)**SWC # KW-WD-SWEL-100**

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures?
See note 1 Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment?
See note 1 Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U
-

Other Adverse Conditions


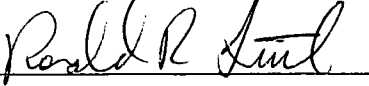
11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-100

Comments (Additional pages may be added as necessary)

Note 1: Roof drain piping over tank has Victaulic couplings. An evaluation is attached which concludes that this piping does not present an interaction hazard to the RWST.

Evaluated by: <u>Glenn Gardner</u>	<u></u>	Date: <u>7/13/12</u>
Evaluated by: <u>Ronald R. Little</u>	<u></u>	Date: <u>7/13/12</u>

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-100



Seismic Walkdown Checklist (SWC)**SWC # KW-WD-SWEL-100****Auxiliary Building Roof Drain Piping Over RWST (KW-WD-SWEL-100)**

An 8 inch diameter roof drain piping entered through penetration 327 on the west wall of the Fan Room in Auxiliary building elevation 672'-1¼" (Ref. 1). The piping is not pressurized and is normally empty of water. During the Beyond Design Basis walkdowns, it was questioned whether the couplings could fail during a seismic event and allow the pipe to fall onto branch lines or soft components attached to the safety related RWST located directly underneath. This question is based on the requirement in Ref. 5 Section 3.2.6, which states, "The walkdown team should review the piping and tubing systems for such joints and identify them as outliers requiring further evaluation".

The piping is galvanized steel, schedule 40 ASTM A-120. Pipe sections are connected with Victaulic standard flexible couplings, style 77 (Ref.2). This piping in the overhead is anti-sweat insulated, obscuring the Victaulic fittings. These are described in Victaulic product catalog 06.04. For 8" fittings, the product is rated at 800 psig working pressure, axial end load capability of 46,740 lbf, axial deflection of 0.13" and flexible joint rotation of 50 minutes of arc. As indicated

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-100

by the ratings, the joint design is flexible (within limits). As a result, it has a high degree of compliance and damping, and responds differently to dynamic motions than welded pipe. Further, the high pressure and axial load ratings indicate a very strong fitting. However, laboratory seismic testing results for 4" joints of the same design, Ref. 6, resulted in failure (leakage and coupling cracking) when pressurized to 160 psig after 25 seconds at moderately high (>4.0 g ZPA) acceleration levels.

In general, the subject drain piping is deadweight supported more conservatively than normal welded piping. For example, ANSI B31.1-1967 (Ref. 7) Table 121.1.4 gives a typical deadweight span of 19 feet for 8" water filled pipe, and 24 feet for steam filled pipe. The subject drain piping, in contrast, is supported about every 10.5 feet. This conservative support scheme is expected to reduce the loading on the Victaulic couplings. Also, in the local area, for horizontal motion there are only two "hard" points of seismic energy input, at the wall and floor penetrations; the vertical hangers do not cause horizontal excitation of the piping. Thus, in contrast to the laboratory tested configuration, the piping system has aspects similar to a suspended system and would not be expected catastrophically fail in a seismic event.

Referring to references 3 and 4, the drain piping is routed very close to the west wall and heads south, passing at el. 671' directly over the RWST and then splits into two lines at a Y-fitting. The minor branch reduces to 4 inch, goes westwards approximately 14 feet and enters the roof through another penetration. The main branch continues southeast, connects with other drain pipes on the fan floor and continues towards a floor penetration into the 24 inch SW Standpipe. This configuration together with the installed pipe hangers is shown on the field isometric (Ref. 3).

Referring to the isometric, it is noted that the piping directly over the tank has at least two supports for each pipe span. A small elevation change to the north of the tank has multiple joints on a pair of 45 degree elbows, but these closely spaced joints would be expected at worst to separate at one joint, relieving the load on the other joints such that separation of those would not be expected. Thus, if it is assumed that this location could result in separation, the piping segments would remain supported by at least two hangers/wall penetrations. Therefore it is concluded that the piping above the RWST would remain supported by the hangers and not be subject to separation and falling onto soft components of the RWST.

References

1. Drawing A-209.
2. Drawing M-654 Rev. W
3. Walkdown Isometric
4. Victaulic Standard Flexible Coupling (Style 77) Specification Sheet, catalog 06.04 Rev. M.
5. TR 1019199, *Experience-Based Seismic Verification Guidelines for Piping and Tubing, Vol 1*, EPRI
6. Report 50096.0 Rev. 1, *Seismic Qualification Report for Victaulic Couplings*, Farwell and Hendricks, Inc. May 1996.
7. ANSI B31.1 – 1967, Power Piping

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-101

AWC # KW-WB-004

Status: Y N U

Equipment ID No. 153-351 Equip. Class 21

Equipment Description: Diesel Gen Fuel Oil Day Tank

Location: Bldg. ADMIN Floor El. 586' Room, Area "A" Diesel Generator Day Tank Room

Manufacturer, Model, Etc. (optional but recommended) BROWN-MINNEAPOLIS TANK, 388

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Det. 6 on S-509 shows 1 1/2" ø with nut and washer. No nut or washer in field. Anchors are welded to base plate. This matches SEW-153-351 analysis. Initiate CR 481187 to document drawing discrepancy.

Seismic Walkdown Checklist (SWC)SWC # KW-WD-SWEL-101

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

Interaction Effects

7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

11. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment? Y N U
Platform between the two day tanks is ruggedly constructed and braced to block wall. No interaction concern.

Comments (Additional pages may be added as necessary)

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-101

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-101

Comments (continuation page)



Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-101

Comments (continuation page)



Seismic Walkdown Checklist (SWC)**SWC #** KW-WD-SWEL-102**AWC #** KW-WB-021Status Y N UEquipment ID No. 11055 Equip. Class 18Equipment Description SFP HX DPILocation: Bldg. AUX Floor El. 622' Room, Area SFP HX AreaManufacturer, Model, Etc. (optional but recommended) ITT BARTON INSTRUMENTS CO, 288A**Instructions for Completing Checklist**

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

Anchorage

1. Is the anchorage configuration verification required (i.e., is the item one of the 50% of SWEL items requiring such verification)? Y N
2. Is the anchorage free of bent, broken, missing or loose hardware? Y N U N/A
3. Is the anchorage free of corrosion that is more than mild surface oxidation? Y N U N/A
4. Is the anchorage free of visible cracks in the concrete near the anchors? Y N U N/A
5. Is the anchorage configuration consistent with plant documentation?
(Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Drawing M-755 Section A-A Y N U N/A
6. Based on the above anchorage evaluations, is the anchorage free of potentially adverse seismic conditions? Y N U

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-102

Interaction Effects

- 7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
Upper S-Clips on east end of light at west end of SFP Hx has not been crimped tight. Review team judges light can't swing far enough to come unhooked due to near-by rugged pipes. CR #481427 submitted to secure S-Hooks.

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

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

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

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Evaluated by: Ellery Baker *Ellery Baker* Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-103

AWC # KW-WB-033

Status Y N U

Equipment ID No. 31293/FPC-204 Equip. Class 7

Equipment Description Actuator SFP Purif Loop Flow CV

Location: Bldg. AUX Floor El. 606' Room, Area Demineralizer Room (FPC-204 Area)

Manufacturer, Model, Etc. (optional but recommended) WA KATES CO, 4FA-1

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

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

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-103

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

Interaction Effects

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

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

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


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


Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

None

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: ELLERY BAKER  Date: 7/13/12

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-104

AWC # KW-WB-021

Status Y N U

Equipment ID No. 135-091 Equip. Class 21

Equipment Description SFP HX

Location: Bldg. AUX Floor El. 622' Room, Area SFP HX Area

Manufacturer, Model, Etc. (optional but recommended) STRUTHERS WELLS CORP, U12-5H

Instructions for Completing Checklist

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

Anchorage

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

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

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

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

5. Is the anchorage configuration consistent with plant documentation? Y N U N/A
 (Note: This question only applies if the item is one of the 50% for which an anchorage configuration verification is required.)
Reference Drawings S-305, S-327

Seismic Walkdown Checklist (SWC)

SWC # KW-WD-SWEL-104

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

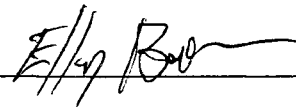
Interaction Effects

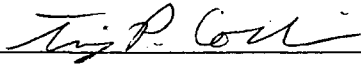
7. Are soft targets free from impact by nearby equipment or structures? Y N U N/A
8. Are overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls not likely to collapse onto the equipment? Y N U N/A
9. Do attached lines have adequate flexibility to avoid damage? Y N U N/A
10. Based on the above seismic interaction evaluations, is equipment free of potentially adverse seismic interaction effects? Y N U

Other Adverse Conditions

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ellery Baker  Date: 7/13/12

Evaluated by: Tim Corbin  Date: 7/13/12

Appendix D
Area Walk-by Checklists

Area Walk-By Checklist (AWC)

AWC # KW-WB-001

Status Y N U

Location: Bldg. TURB Floor El. 586 Room, Area Safeguard Alley -- "A" Switchgear

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-001

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

- *Appendix R lighting secured w/ rubber strapping (this was reviewed and replaced during Appendix R PMS and found to be acceptable).*
- *A clock on the south wall has a potential to interact with SA Compressor 1 C valves SW-402C and TI-12103. Determined to be a light item and is not a challenge to function of SR SSCs SW-402C & TI-12103 are non-safety related. CR #481252 submitted to address mounting of clock.*
- *The sign stanchion north of Bus-51 has a loose vertical post. There is no target and it is not a seismic concern. It is a housekeeping issue, and should be removed from the area.*

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A
Storage of stanchion behind Bus 51 is not a seismic challenge.

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


Comments (Additional pages may be added as necessary)


None.

Area Walk-By Checklist (AWC)

AWC # KW-WB-001

Field Walkdown 7/10/12

Evaluated by: Tim Wattleworth  Date: 7/24/12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-002

Status Y N U

Location: Bldg. TURBINE Floor El. 586 Room, Area Safeguard Alley -- "A" AFW Pump Room

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-002

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

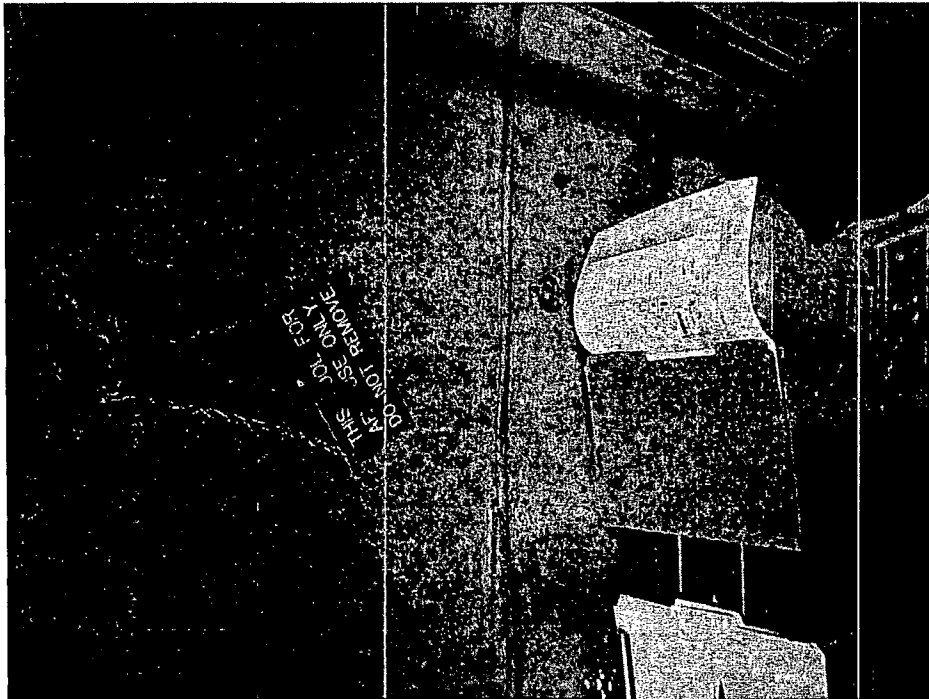
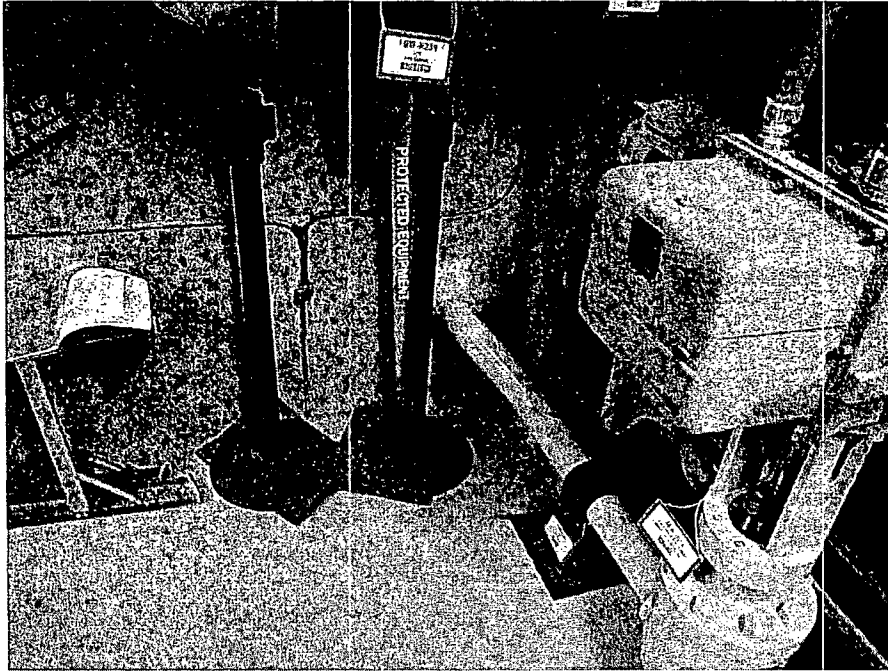
Spanner tool hanging on wall may fall. There are no nearby. Safety related equipment that would be damaged. Protected equipment posts are not restrained. They are not a concern because they are light weight and have low center of gravity. They would NOT damage equipment

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

Comments (Additional pages may be added as necessary)

None

AWC# KW-WB-002



Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Area Walk-By Checklist (AWC)AWC # KW-WB-003

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

The supports to the overhead emergency diesel generator vent supply fan and ductwork were observed and the associated ventilation drawings, M-636 and M-697, were reviewed. The vent supply fan is supported by a braced structural steel frame anchored to the ceiling. This structure is shown in Detail C on Drawing M-697. This fan is connected to ductwork with a flexible connection. The adjacent insulated ductwork is supported from the ceiling by at least seven 3/8 inch threaded rods anchored to the ceiling. That section of duct is also anchored to the concrete wall per review of Drawing M-697, Section C-C. The duct is attached to an un-insulated section of duct with approximately 36 fasteners. The un-insulated duct is supported by a braced structural steel frame welded to embedded plates on the ceiling. The insulated duct is supported by threaded rods and restrained from lateral seismic movements by its connections to the building and to adjacent ductwork supported by a braced frame. There is a smaller duct and fan in the north east corner of the room. It is adequately supported by two wall mounted supports. Based on these field observations and review of the drawings, the overhead ventilation equipment was judged to be well supported. There are no seismic concerns.

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-003

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A


Barrier stations are degraded and may tip over. They are stored behind DR101 and DR102. No soft targets were identified near stations; just air tubing (IA2025A) was near storage area.

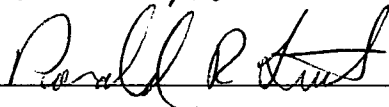
Ladder storage restraint was marginal. Ladders may move near bus 5 cabinet. No contact is expected however ladder restraint should be improved. CR # 481153 was submitted.

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

Comments (Additional pages may be added as necessary)

FIELD WALKDOWN 7-9-12

Evaluated by: Tim Wattleworth  Date: 7-26-12

Evaluated by: Ronald Little  Date: 7/26/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-004

Status Y N U

Location: Bldg. ADMIN Floor El. 586 Room, Area "A" Diesel Generator Day Tank Room

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-004

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Evaluated by: ELLERY BAKER *Ellery Baker* Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-004

Comments (continuation page)

None.

Area Walk-By Checklist (AWC)

AWC # KW-WB-005

Status Y N U

Location: Bldg. SCRNHSE Floor El. 586 Room, Area "A" SW Pump Area east of "A" CW Pit

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A
Vent damper and grating above SW-1A confirmed to confine grating with welds.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-005

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Glenn Gardner

Glenn A. Gardner

Date: 7/11/12

Evaluated by: Ronald R. Little

Ronald R. Little

Date: 7/12/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-005

Comments (continuation page)

Field Walkby 7/9/12

Area Walk-By Checklist (AWC)AWC # KW-WB-006Status Y N U

Location: Bldg. SCRNHSE Floor El. 569 Room, Area East-Central Lower Screenhouse: East of CW pumps, south of pump 1A and north of pump 1B

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y N U N/A
See Note 1 and 2 for reconciliation of noted interaction.

Area Walk-By Checklist (AWC)

AWC # KW-WB-006

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

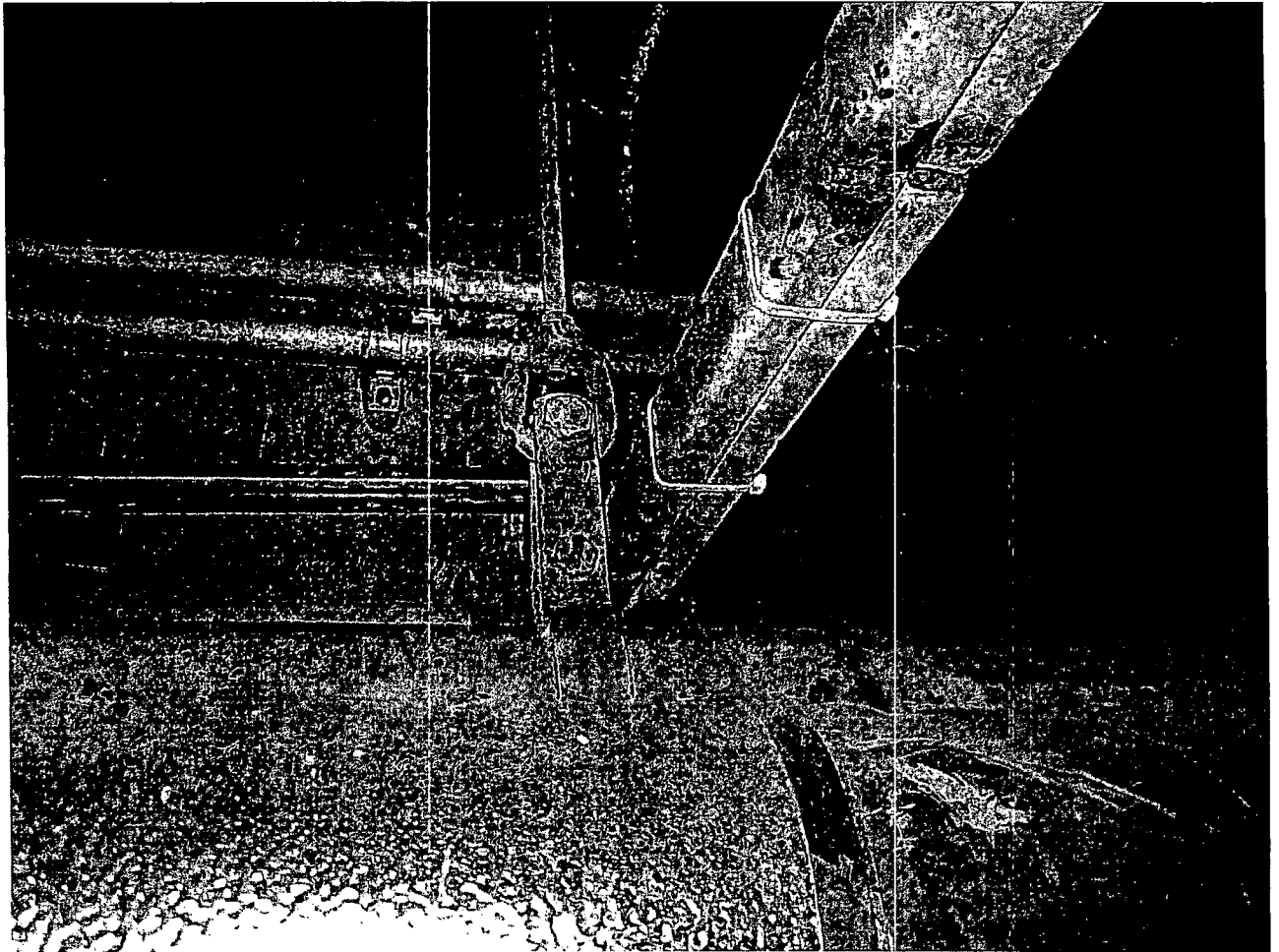
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U
See Note 1 and 2 for reconciliation of noted interaction.

Comments (Additional pages may be added as necessary)

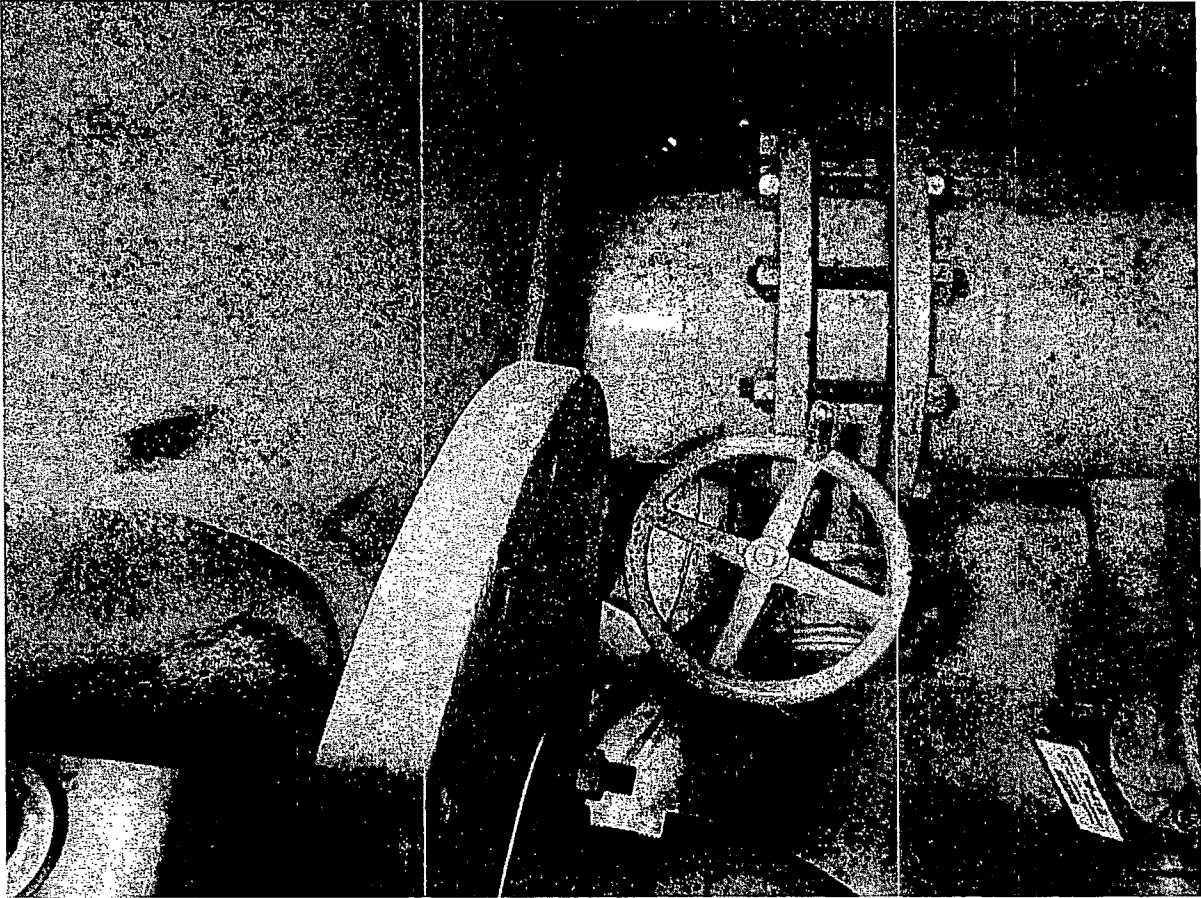
1. *Manway cover on recirc water deaerator tank hangs from eyebolt near valve CW-401. The valve handle during earthquake potentially damaging valve. Since this equipment is non-safety related, it is noted for documentation only.*
2. *Rod hanger pipe clamp on rod hanger on pipe with valve MD-3B may has approximately 1/4" gap with supporting for Inst. Air tubing to SW-3B. Pipe movement during earthquake may cause pipe clamp to bump tubing support tray. It was confirmed that the air supply tubes are non-safety related and that the valves fail closed in the desired configuration for safe shut down. Therefore, this interaction is noted for documentation only.*

Area Walk-By Checklist (AWC)

AWC # KW-WB-006



AWC# KW-WB-006



Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Area Walk-By Checklist (AWC)AWC # KW-WB-007Status Y N ULocation: Bldg. AUX Floor El. 586 Room, Area Inside RWST Shield Structure**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-007

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Evaluated by: Glenn Gardner  Date: 7/12/12

Evaluated by: Ronald R. Little  Date: 7/12/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-007

Comments (continuation page)

None.

Area Walk-By Checklist (AWC)

AWC # KW-WB-008

Status Y N U

Location: Bldg. AUX Floor El. 586 Room, Area Internal Containment Spray Pump Area

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A
Anchor missing @ N. wall @ U-bolt support adjacent to NG-701. Adjacent supports are in satisfactory condition. No threat to functionality of the equipment. Valve and line are both of minimal mass. CR 481254 submitted.
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A
1 of 2 anchors @ N-E base of Aux Bldg basement 1A fan coil unit is missing. Previously noted in SEWS and analyzed as acceptable.
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y N U N/A
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A
Mult. S.W. lines off of stand pipe have vitaulic connections. See Comments Section, Note 1.

Area Walk-By Checklist (AWC)

AWC # KW-WB-008

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

A set of moveable stairs was stored between the upper and lower Victaulic drain lines loops feeding into the SW stand pipe. While possibly not in compliance with station housekeeping, they were found to not be a seismic concern. Follow-up with operations (owners of the stairs) will be performed and CR initiated if appropriate.

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

Comments (Additional pages may be added as necessary)

Area Walk-By Checklist (AWC)

AWC # KW-WB-008

Note 1:

Victaulic Pipe

The piping is galvanized steel, schedule 40 ASTM A-120. Pipe sections are connected with Victaulic standard flexible couplings, style 77. These are described in Victaulic product catalog 06.04. For 6" fittings, the product is rated at 1000 psig working pressure, axial end load capability of 34,470 lbf, axial deflection of 0.23" and flexible joint rotation of 1 degree 5 minutes of arc. As indicated by the ratings, the joint design is flexible (within limits). As a result, it has a high degree of compliance and damping, and responds differently to dynamic motions than welded pipe. Further, the high pressure and axial load ratings indicate a very strong fitting.

Lowest (flush line): Couplings are close to anchor point (stand pipe). Deemed acceptable.

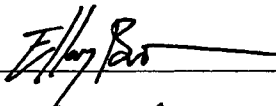
PB 1417 is immediately adjacent to the couplings.


Lower Drain: Anchored at the stand pipe and at the concrete RWST shield wall. Weak point appears to be the bottom two elbows on the loop seal. If these were to fail, the horizontal pipe between them would be supported by the two existing hangers. The pipe on either side of the upper two elbows of the loop seal would also remain well supported by rod hangers. The handle to SW(R16)-8 is close to the pipe and would likely interact with the pipe in a seismic event; however, the handle is sufficiently flexible as to prevent it from failing.

Upper Drain: This pipe is a stout assembly and is not found to raise any concerns of failure.

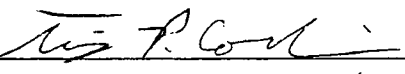
None of the three lines discussed above would be a source of significant flood waters.

Paired walkdown completed on July 10, 2012 (excluded 'B' Train ICS Pump area, which was later inspected as noted below).

Evaluated by: Ellery Baker  Date: 9/17/12

Evaluated by: Tim Corbin  Date: 9/17/12

'B' Train ICS Pump area was inspected on 7/18/12 by T. Corbin and R. Little.

Evaluated by: Tim Corbin  Date: 9/17/12

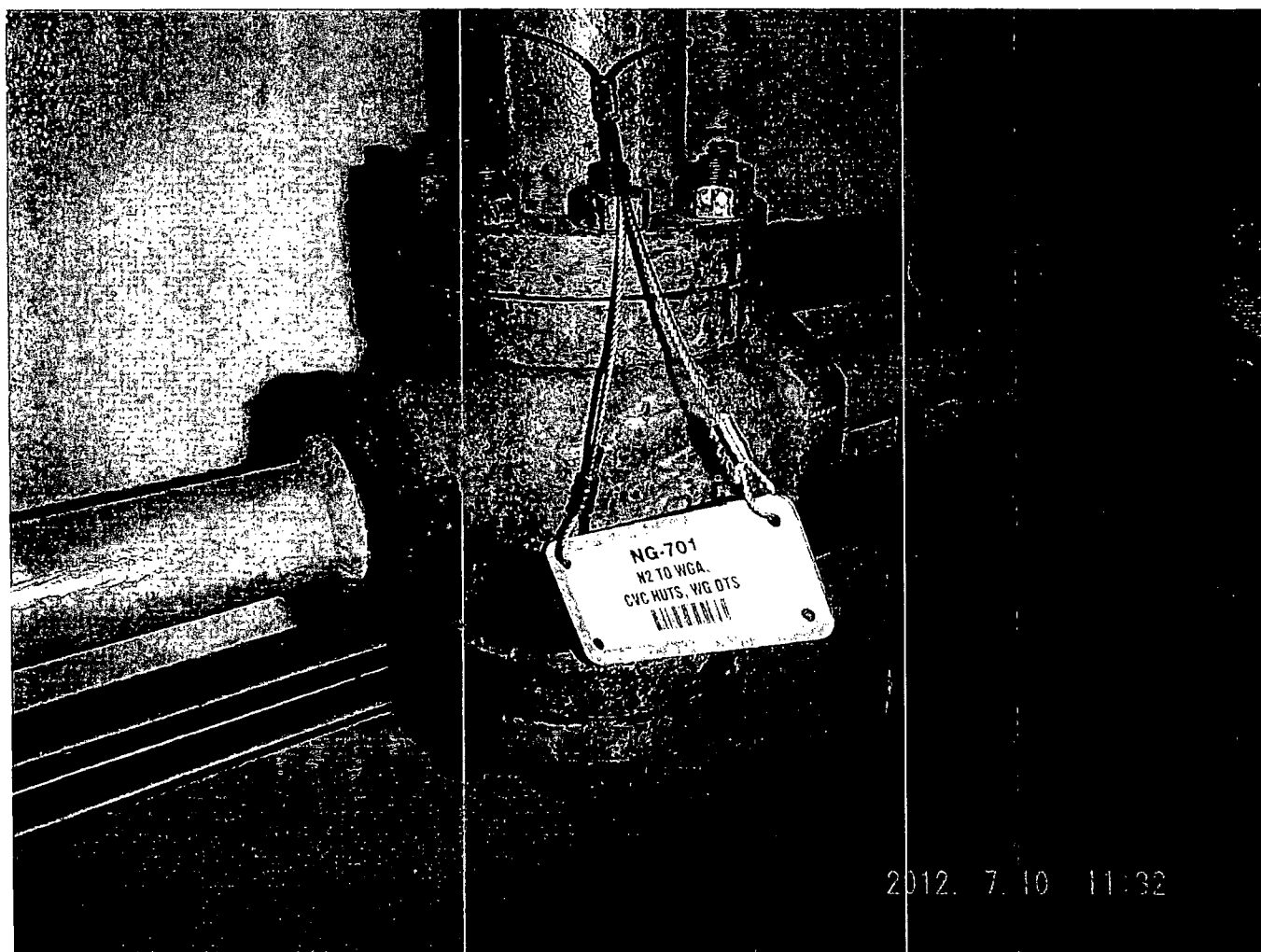
Evaluated by: Ronald R. Little  Date: 9/17/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-008

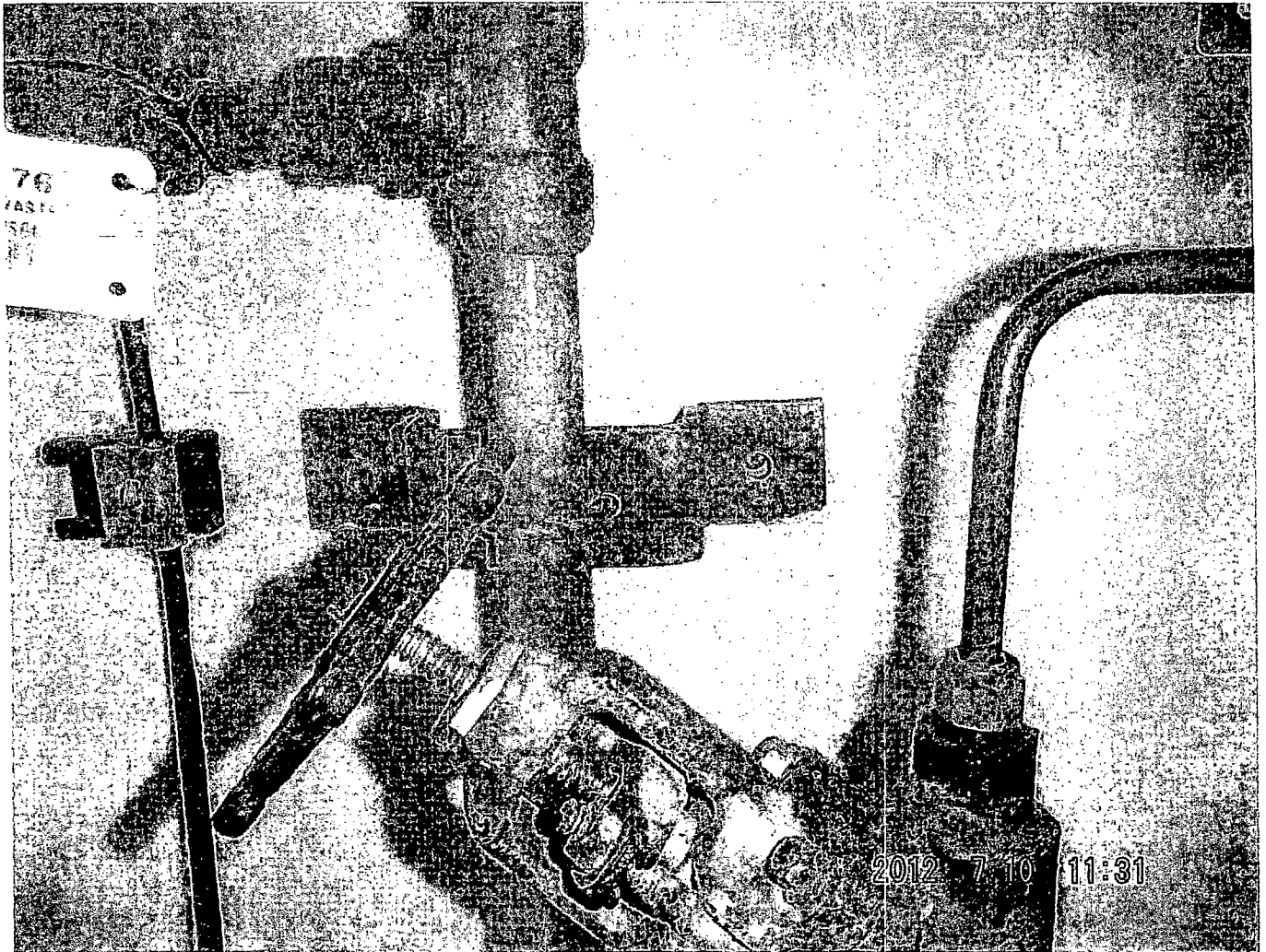
Comments (continuation page)

NG-701



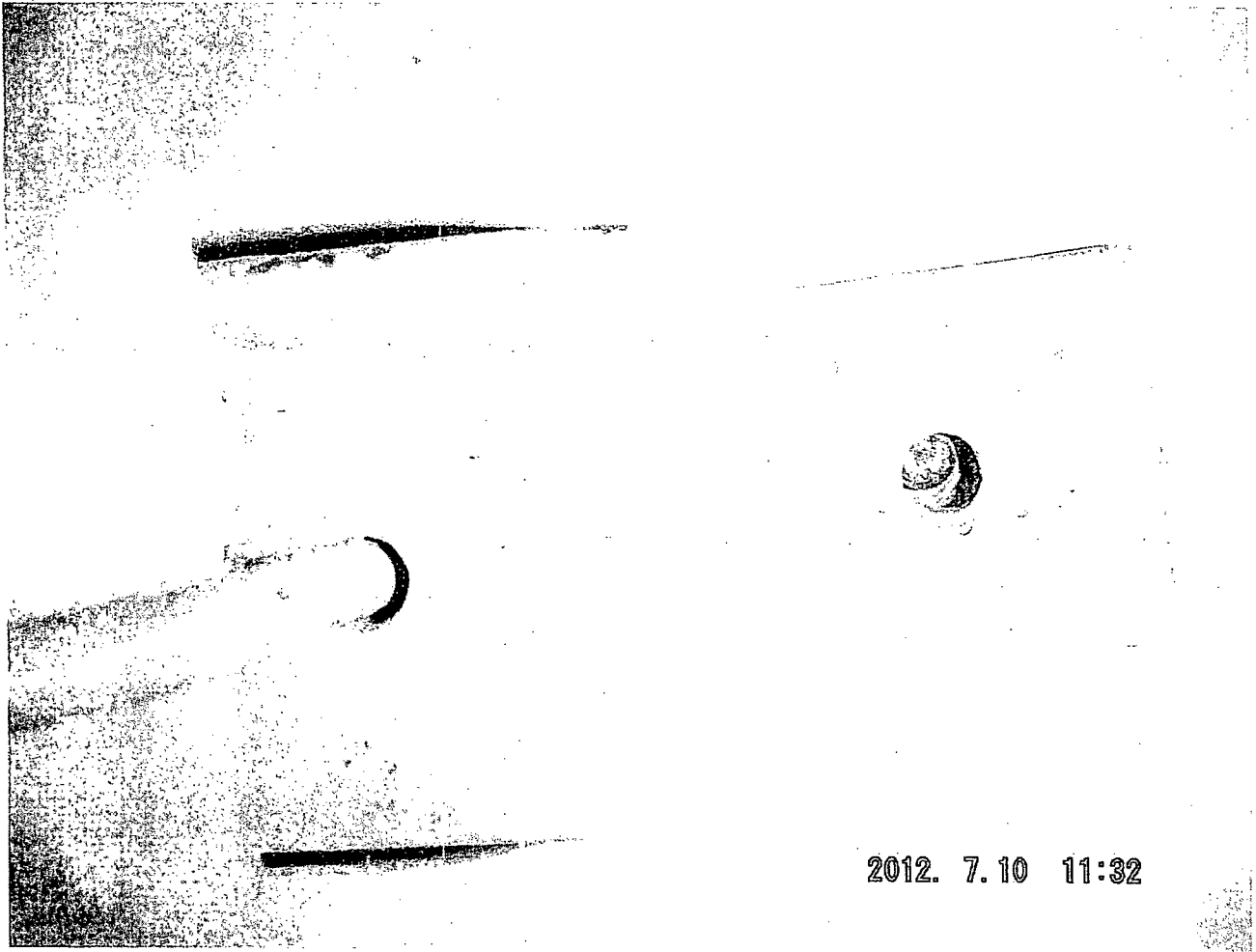
Area Walk-By Checklist (AWC)

AWC# KW-WB-008



Area Walk-By Checklist (AWC)

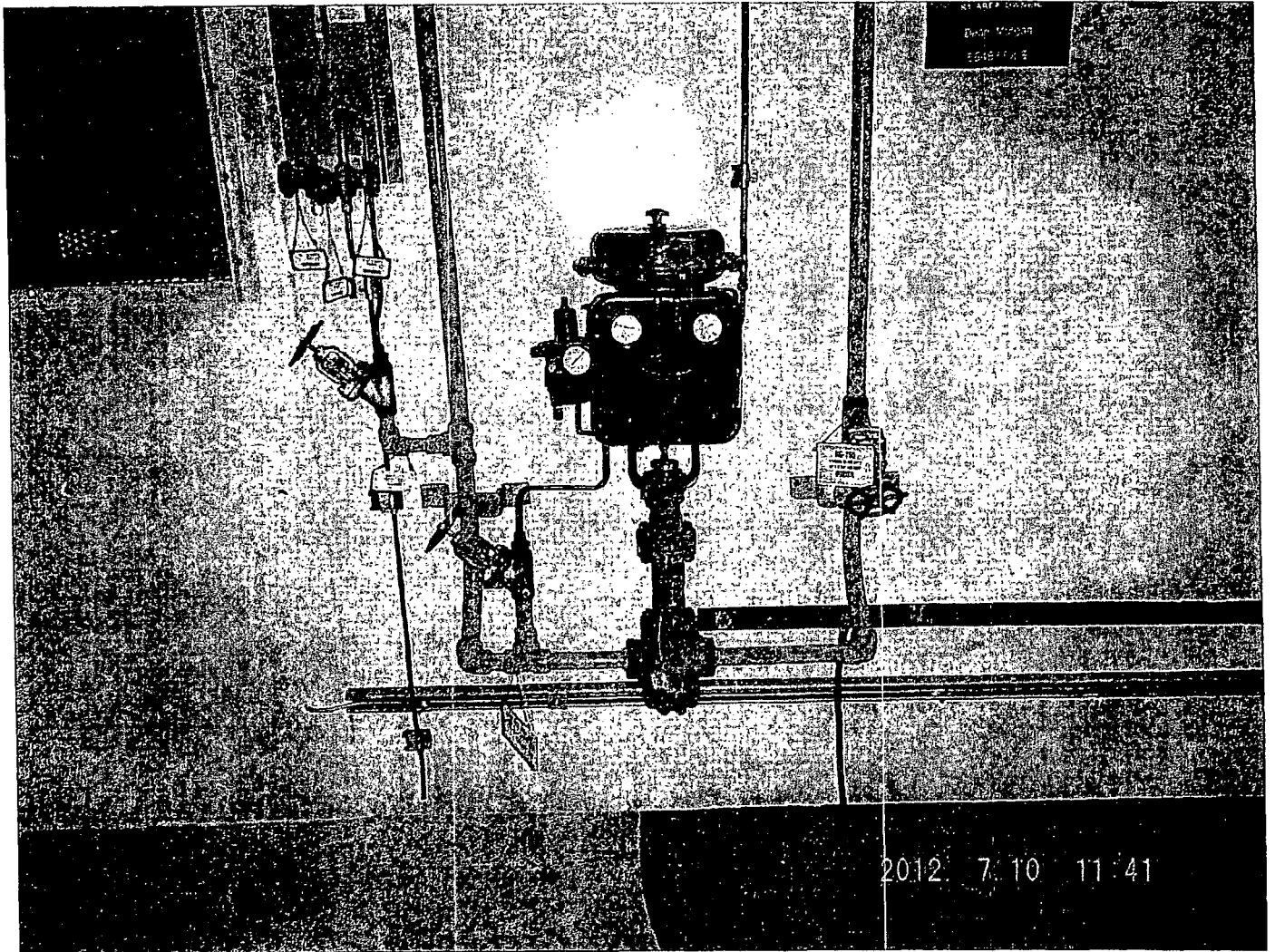
AWC# KW-WB-008



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Area Walk-By Checklist (AWC)

AWC# KW-WB-008



Area Walk-By Checklist (AWC)

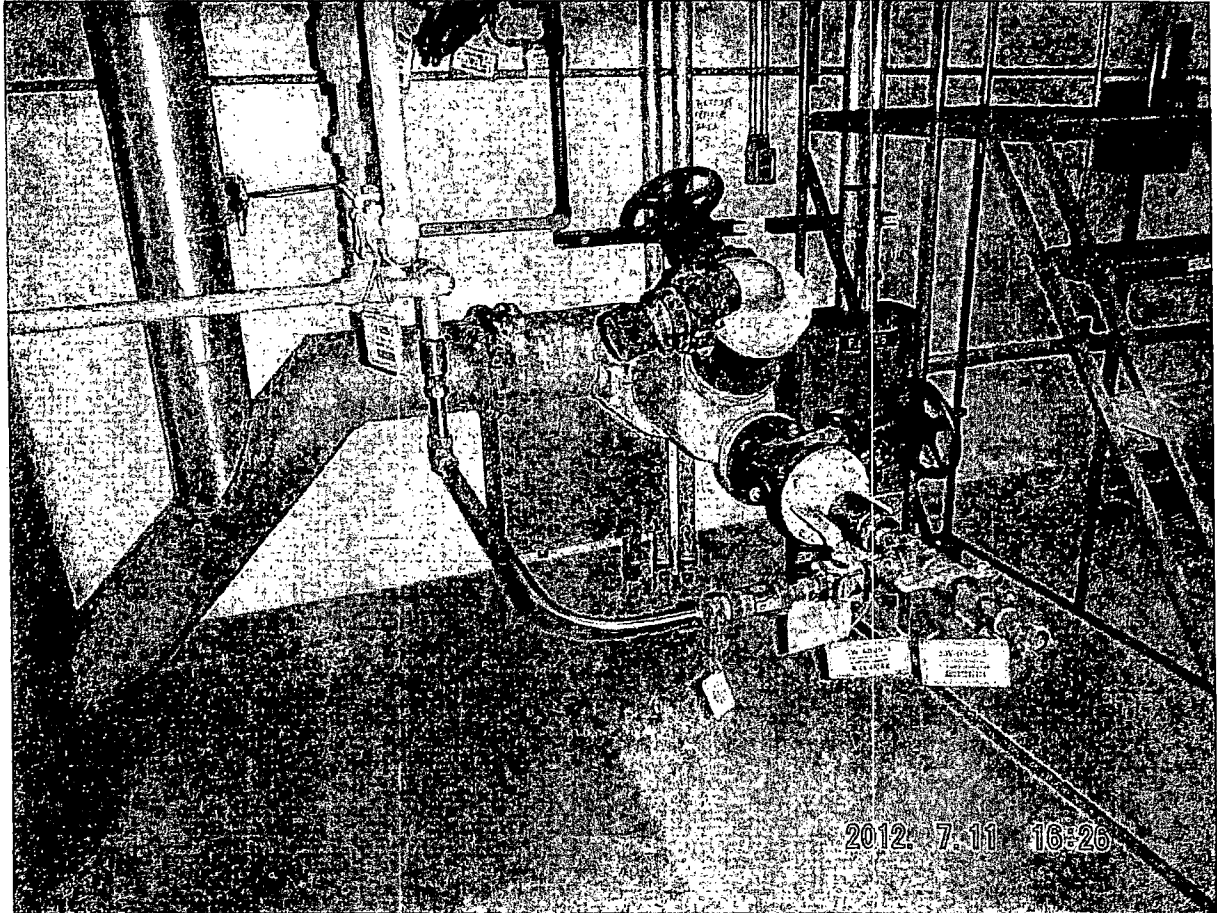
AWC# KW-WB-008



SW Stand-Pipe Flush Lines - Victaulic

Area Walk-By Checklist (AWC)

AWC# KW-WB-008

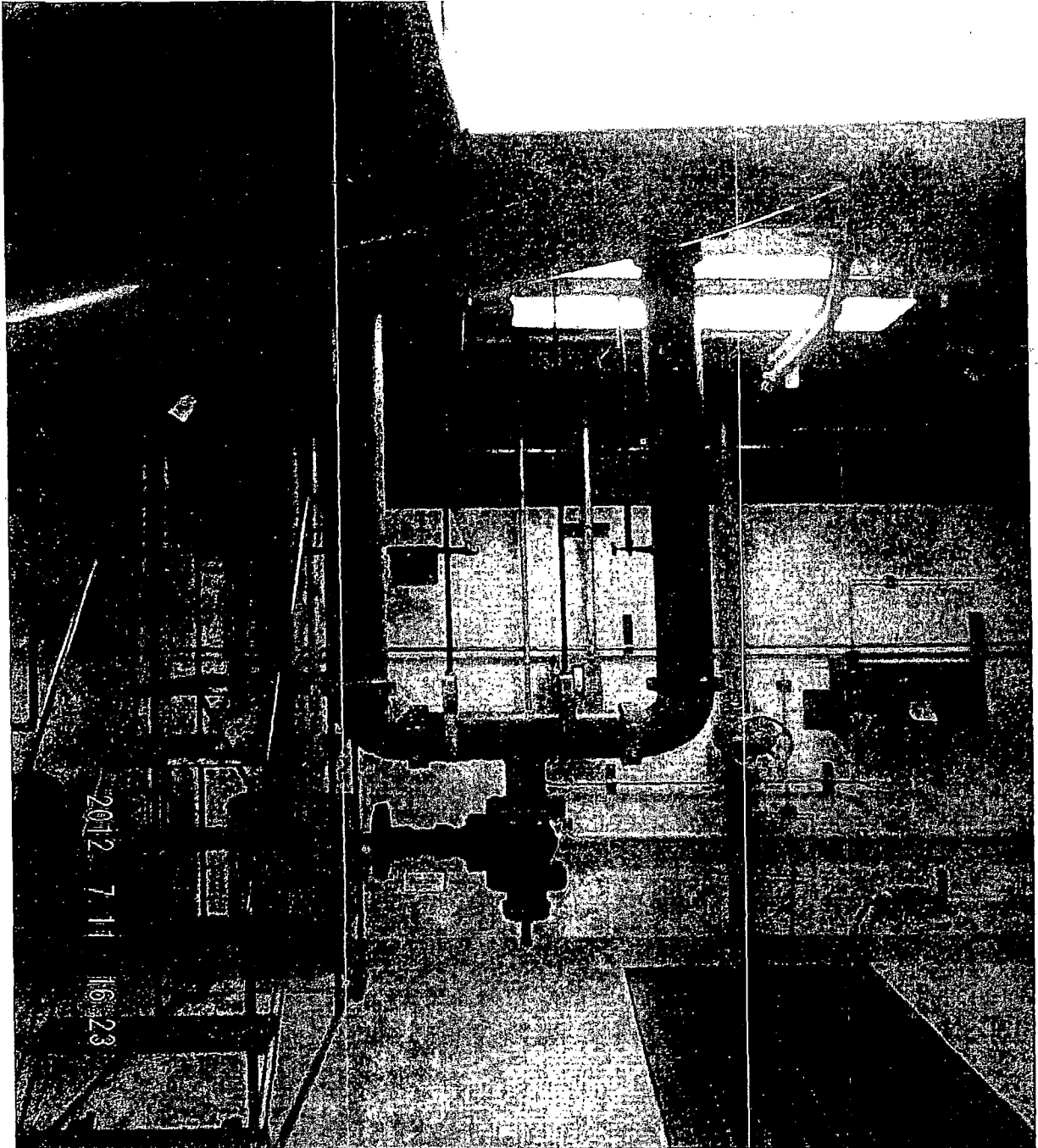


SW Stand-Pipe Flush Lines - Victaulic

Area Walk-By Checklist (AWC)

AWC# KW-WB-008

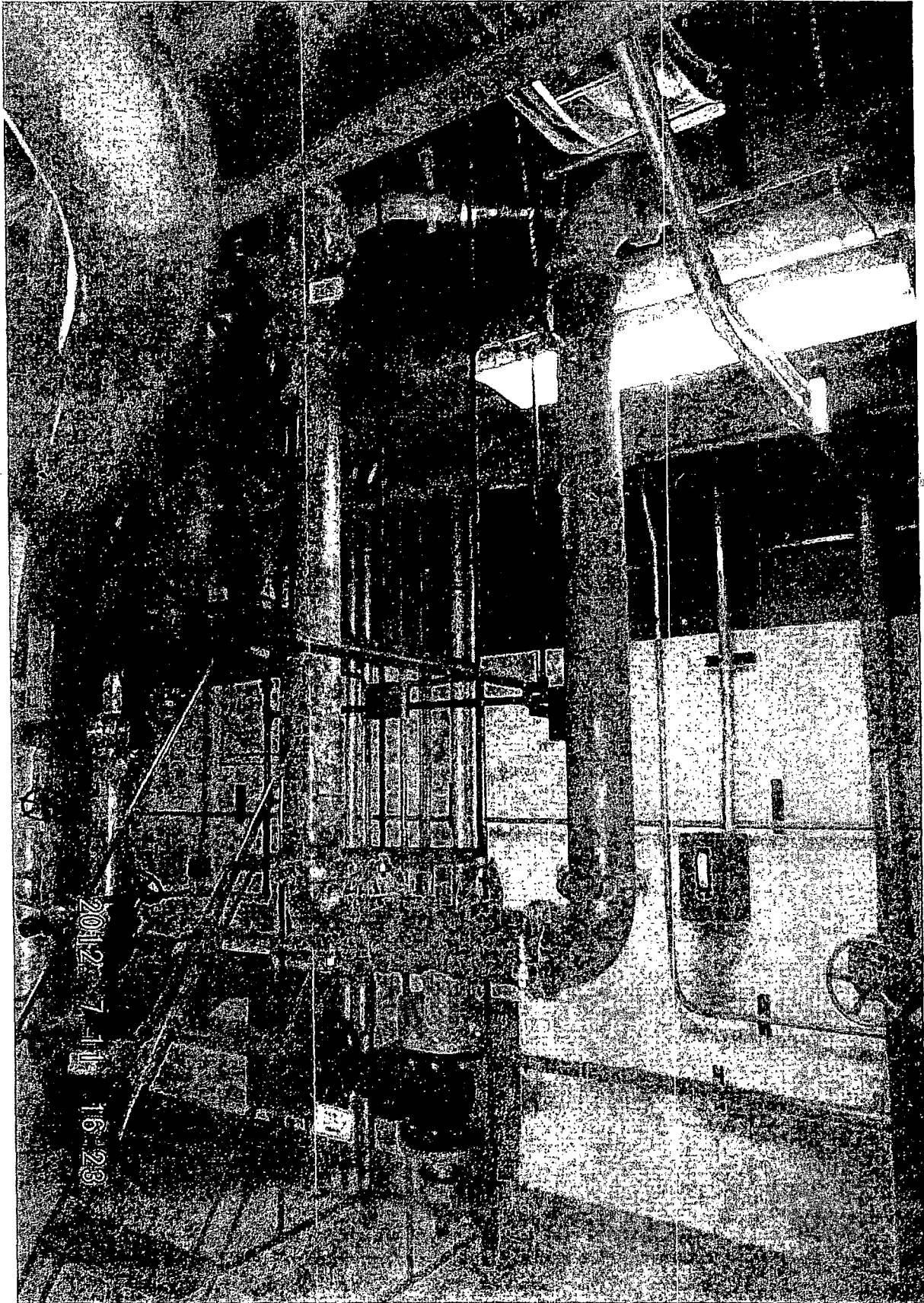
SW Stand-Pipe Lower Drain - Victaulic



Area Walk-By Checklist (AWC)

AWC# KW-WB-008

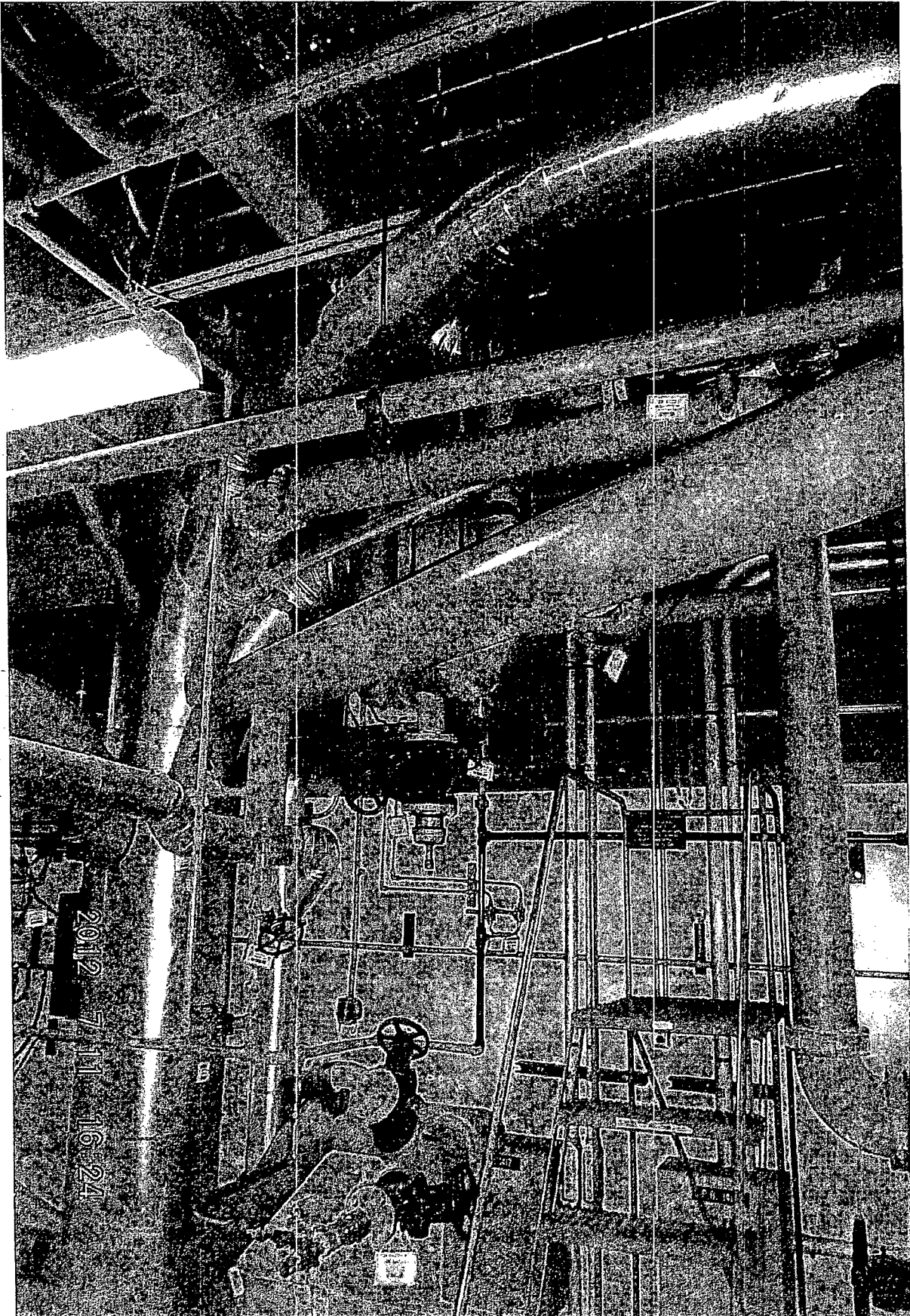
Page 11 of 19



Area Walk-By Checklist (AWC)

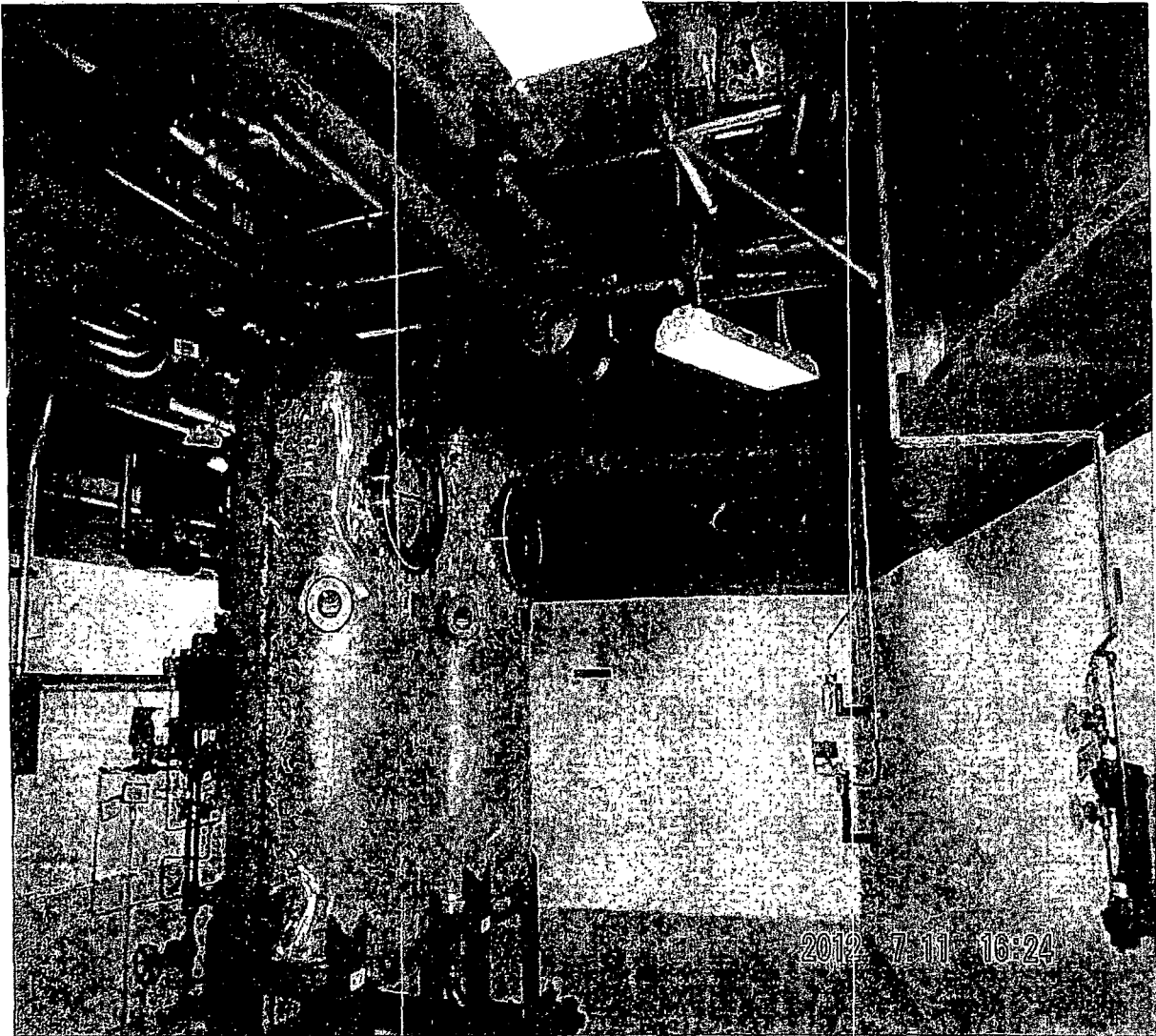
AWC# KW-WB-008

Page 12 of 19



Area Walk-By Checklist (AWC)

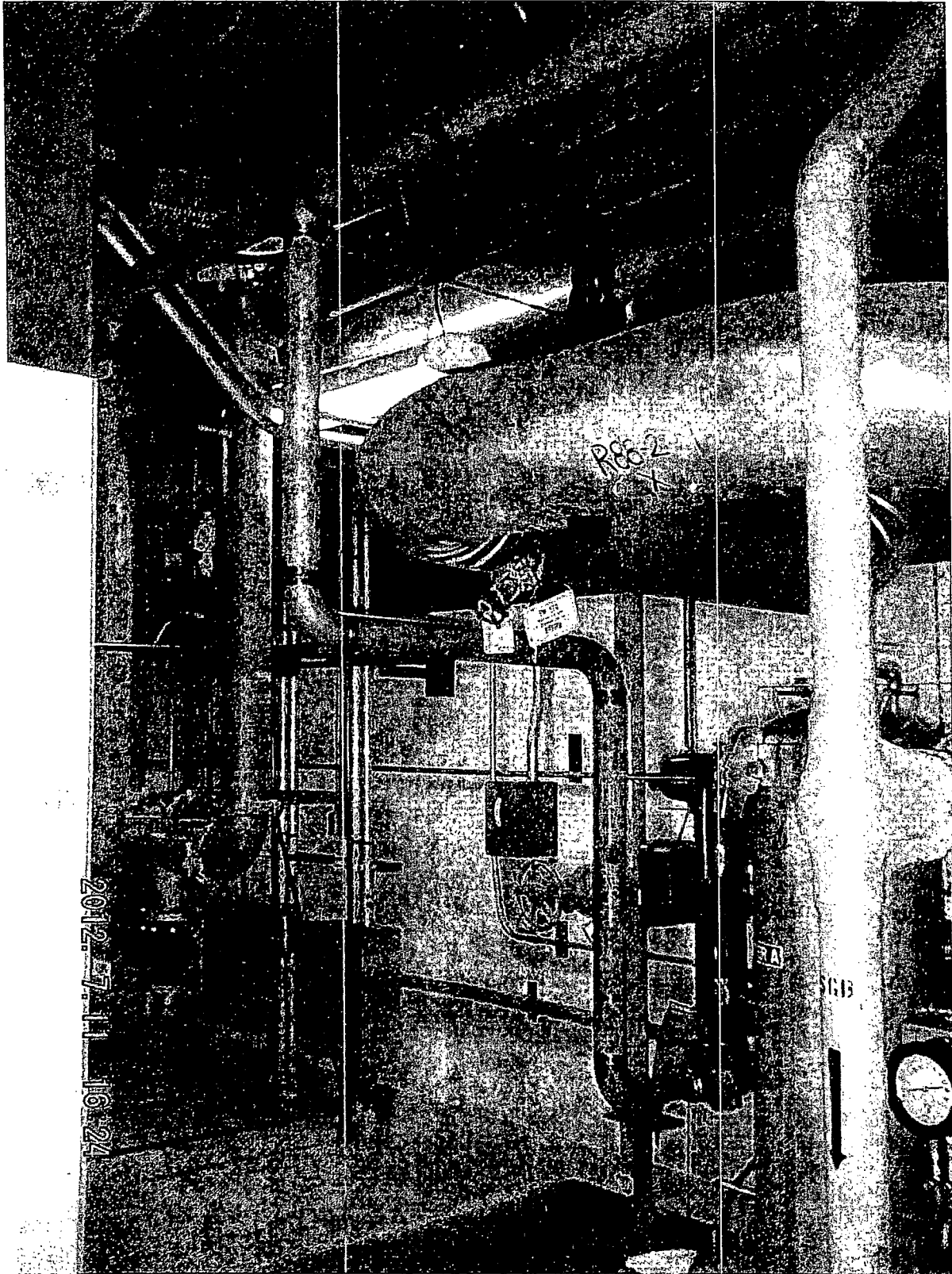
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Area Walk-By Checklist (AWC)

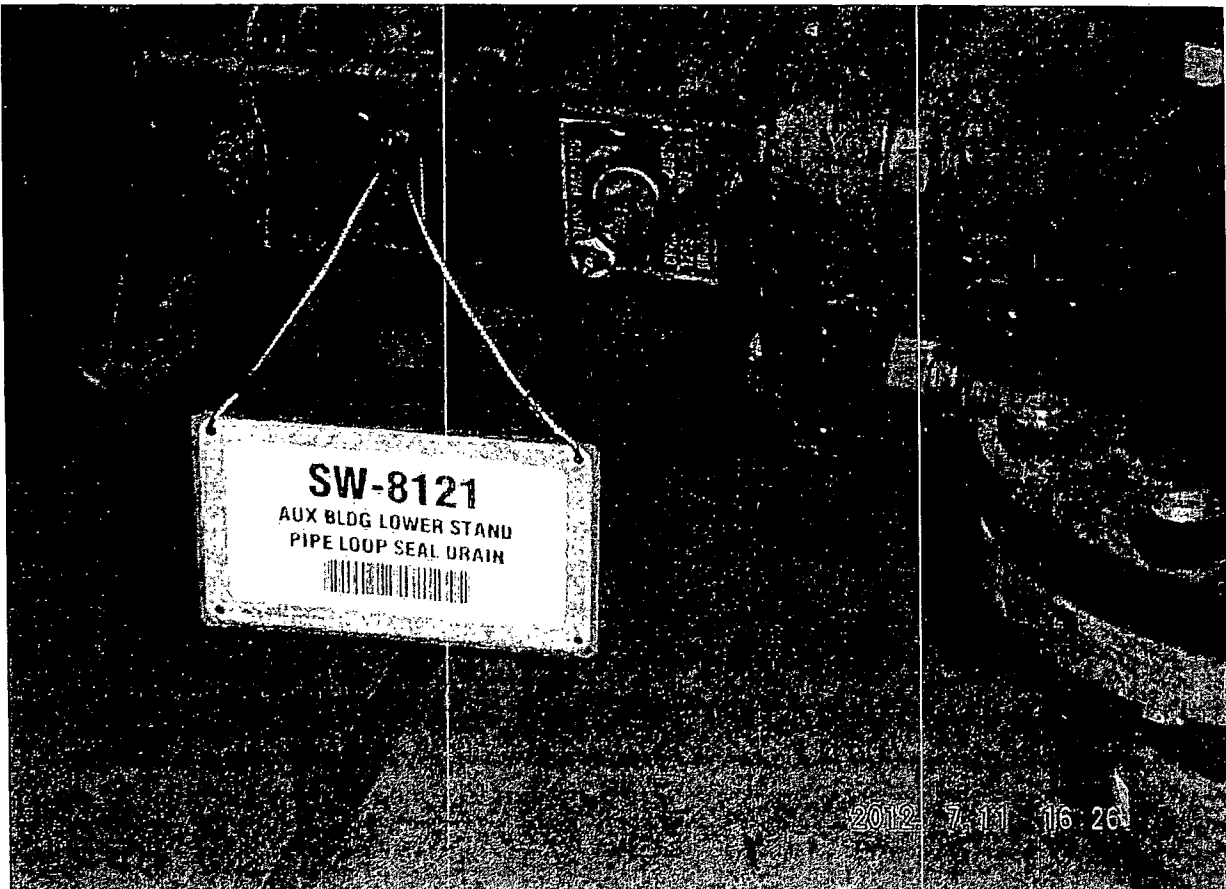
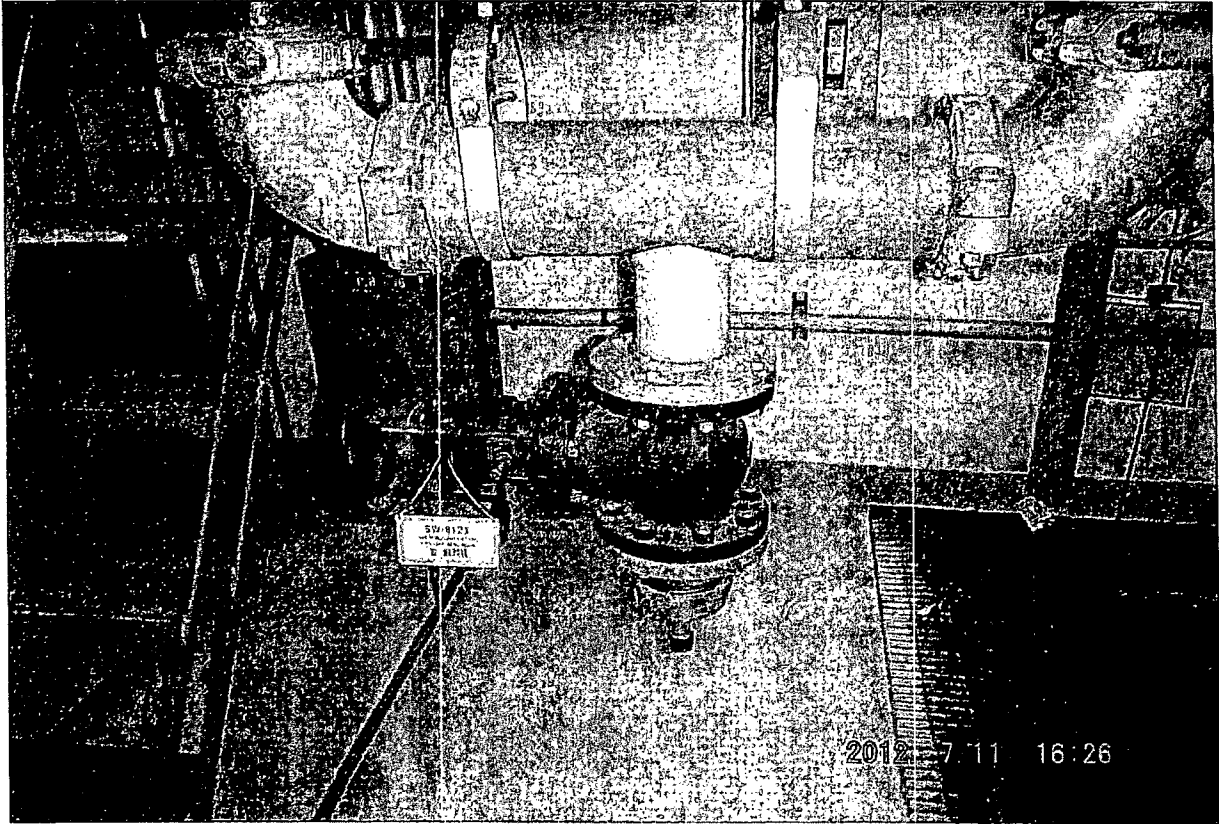
AWC# KW-WB-008

Page 14 of 19



Area Walk-By Checklist (AWC)

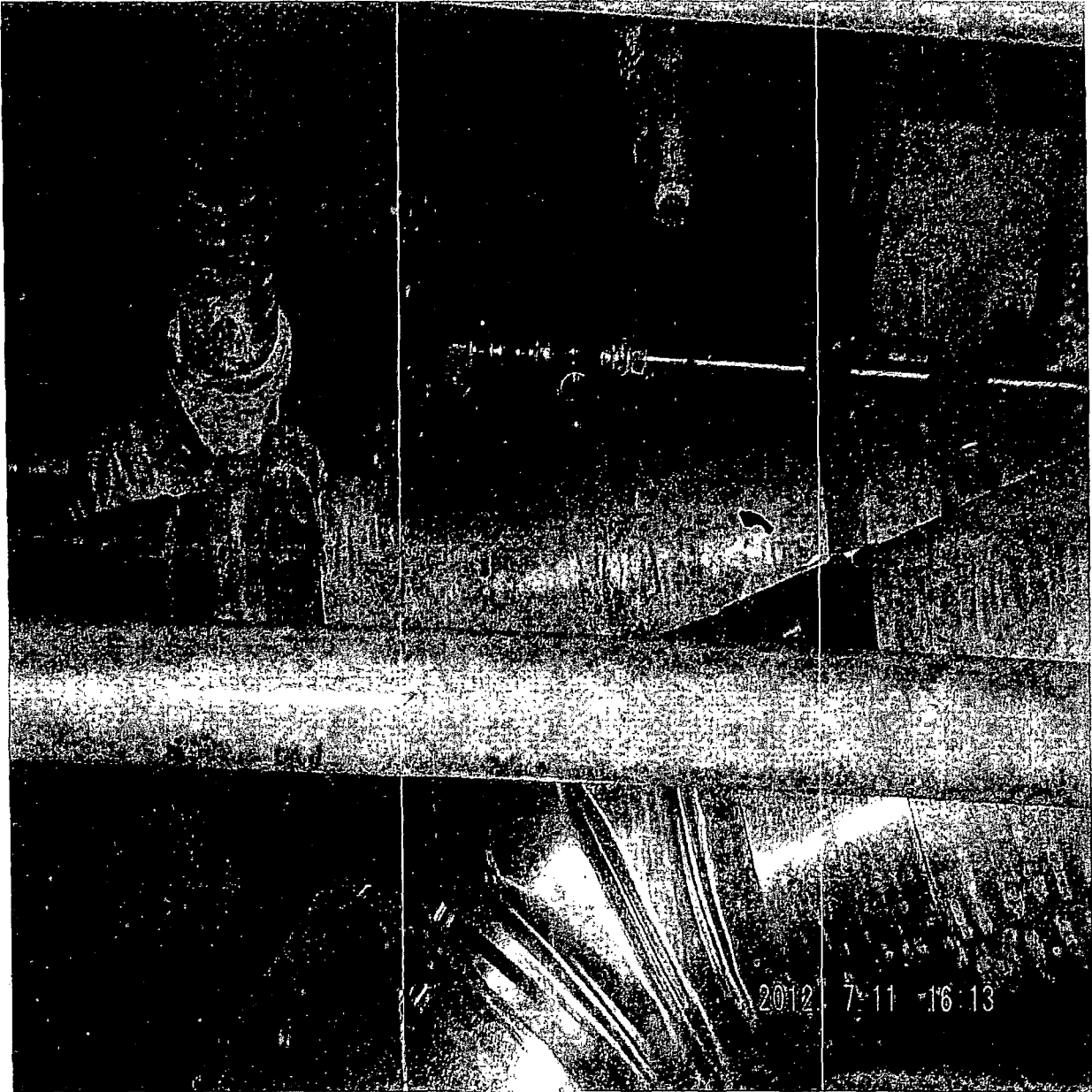
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Area Walk-By Checklist (AWC)

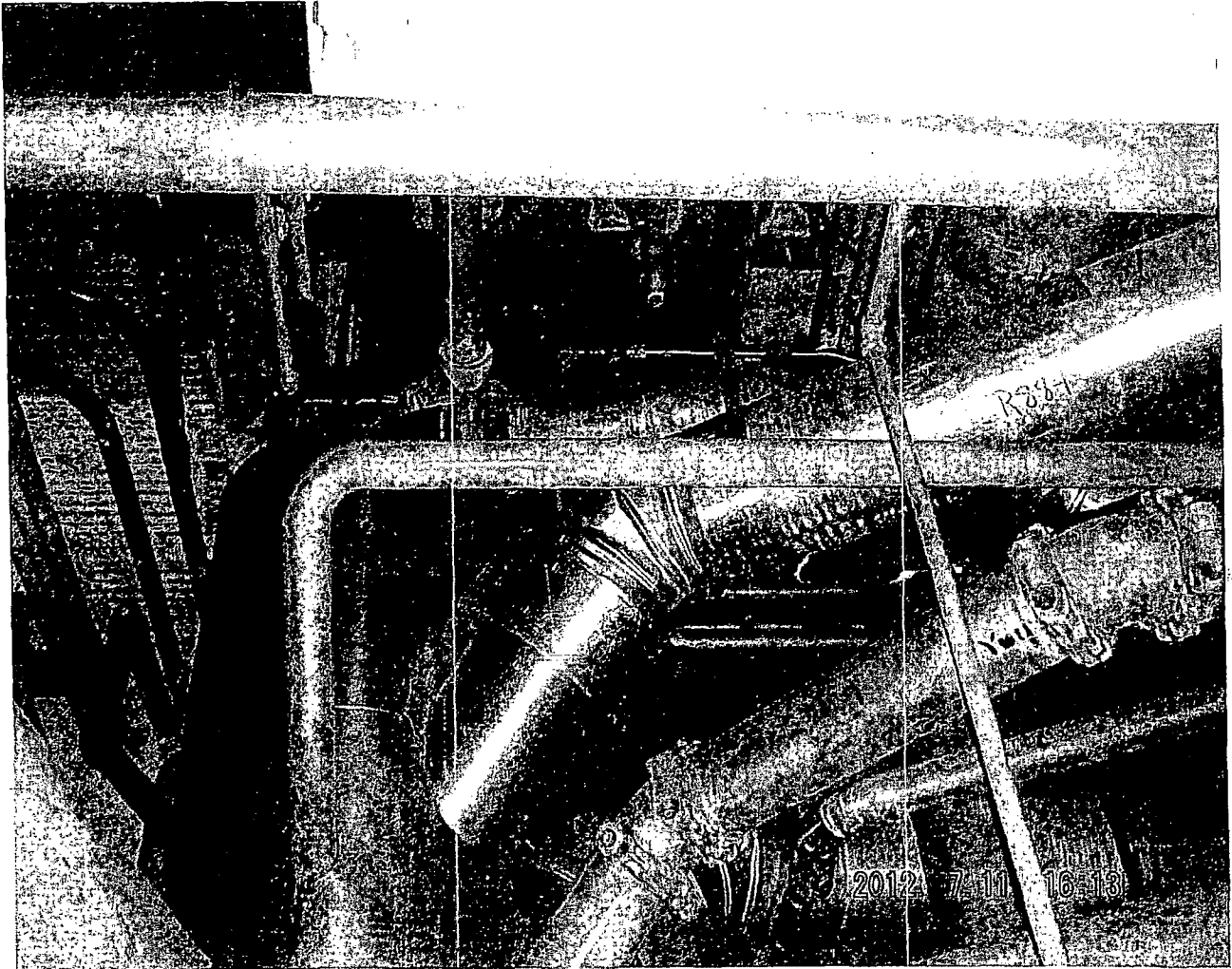
AWC# KW-WB-008

Page 16 of 19



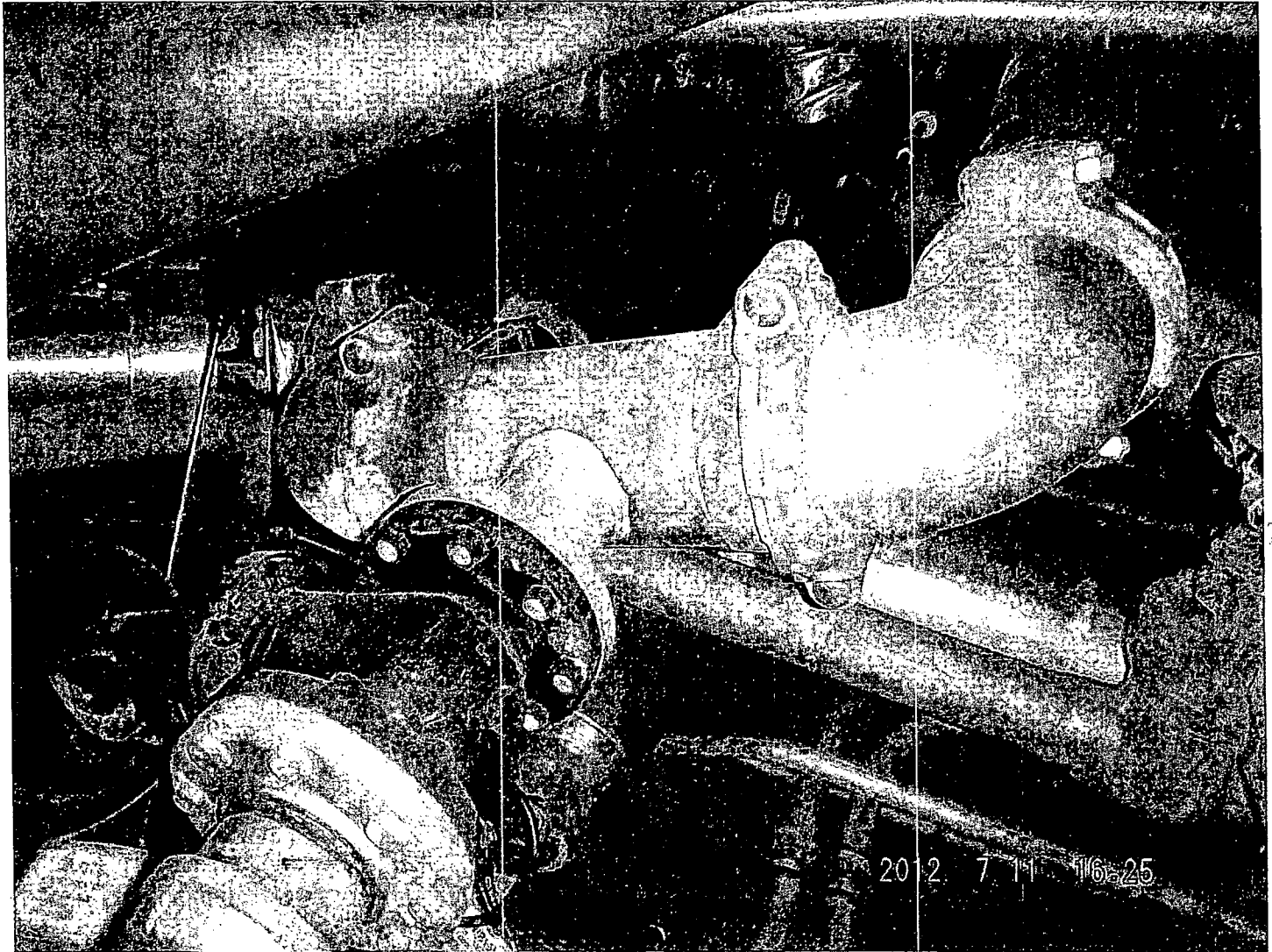
Area Walk-By Checklist (AWC)

AWC# KW-WB-008



Area Walk-By Checklist (AWC)

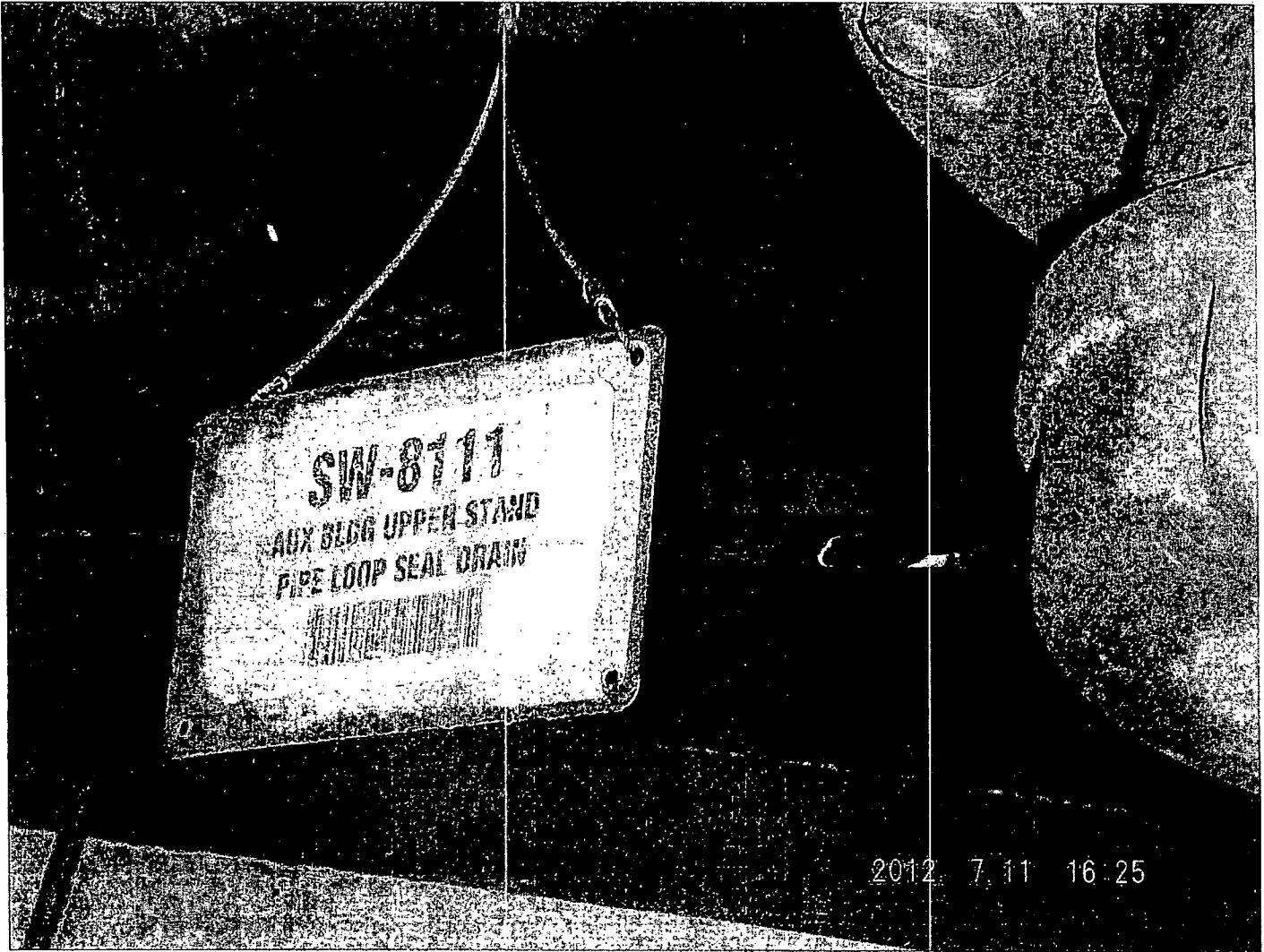
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Area Walk-By Checklist (AWC)

AWC# KW-WB-008

Page 19 of 19



Area Walk-By Checklist (AWC)

AWC # KW-WB-009

Status Y N U

Location: Bldg. AUX Floor El. 586 Room, Area SI Pump Area

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
Heat trace rack north of SI-P-1A has heat trace hanging out of the tray and one location missing half nuts at unistrut to tray connection. Not a concern due to the limited load of the tray. Also a one bolt connection is typical and is maintained.

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

Area Walk-By Checklist (AWC)

AWC # KW-WB-009

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A
Overhead Victaulic coupling drain line (SI pump 'B' area) is well supported and is not an interaction or flooding concern.
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A
Large SI pump-related tool near SI pump 'B' is attached to wall. No interaction concern.
-
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U
-

Comments (Additional pages may be added as necessary)

Appendix R light located directly above SI-P-1A is inadequately attached to a duct support. CR 481289 submitted. Due to conduit connections the light is not likely to fall but may break. The light is found to have inadequate mass to adversely affect equipment should it fall.

Area near "B" Train SI Pump was not inspected at this time. 'B' Train SI Pump area was inspected on 7/18/12.

Evaluated by: Ellery Baker

Ellery Baker

Date:

7/25/12

Evaluated by: Tim Corbin

Tim Corbin

Date:

7/25/12

'B' SI Pump Area:

Evaluated by: Tim Corbin

Tim Corbin

Date:

7/25/12

Evaluated by: Ronald R. Little

Ronald R. Little

Date:

7/25/12

Area Walk-By Checklist (AWC)AWC # KW-WB-010Status Y N ULocation: Bldg. AUX Floor El. 586 Room, Area Charging Pump Room**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y N U N/A
- CVC-H356 snubber body rests on CVC-H162 snubber support structure. The components that are touching are rugged and CVC-H356 has sufficient built-in flexibility (pin-pin strut) to accommodate differential seismic movement. Satisfactory.*
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-010

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

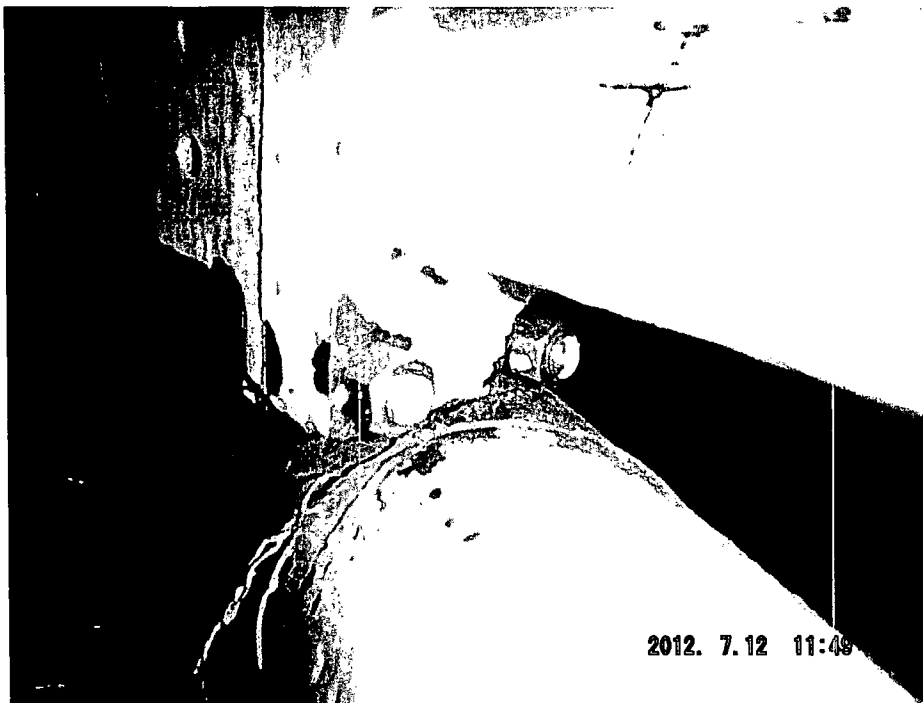
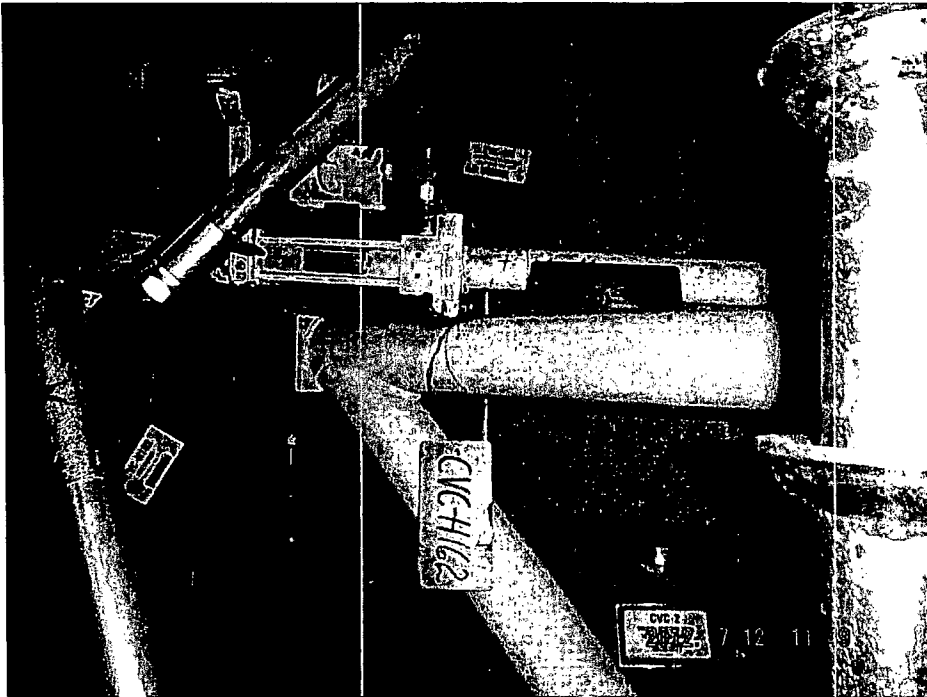
Evaluated by: Ellery Baker *Ellery Baker* Date: 7/12/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-010

Comments (continuation page)

Field Walk-By 7/12/12



Area Walk-By Checklist (AWC)AWC # KW-WB-011Status Y N ULocation: Bldg. AUX Floor El. 586 Room, Area MCC52E Area**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

Observed an approximately five (5) foot long cantilevered cable tray above MCC-52E. Tray is lightly loaded and tray splice comes before the cantilever section; deemed acceptable.

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

Area Walk-By Checklist (AWC)


AWC # KW-WB-011

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

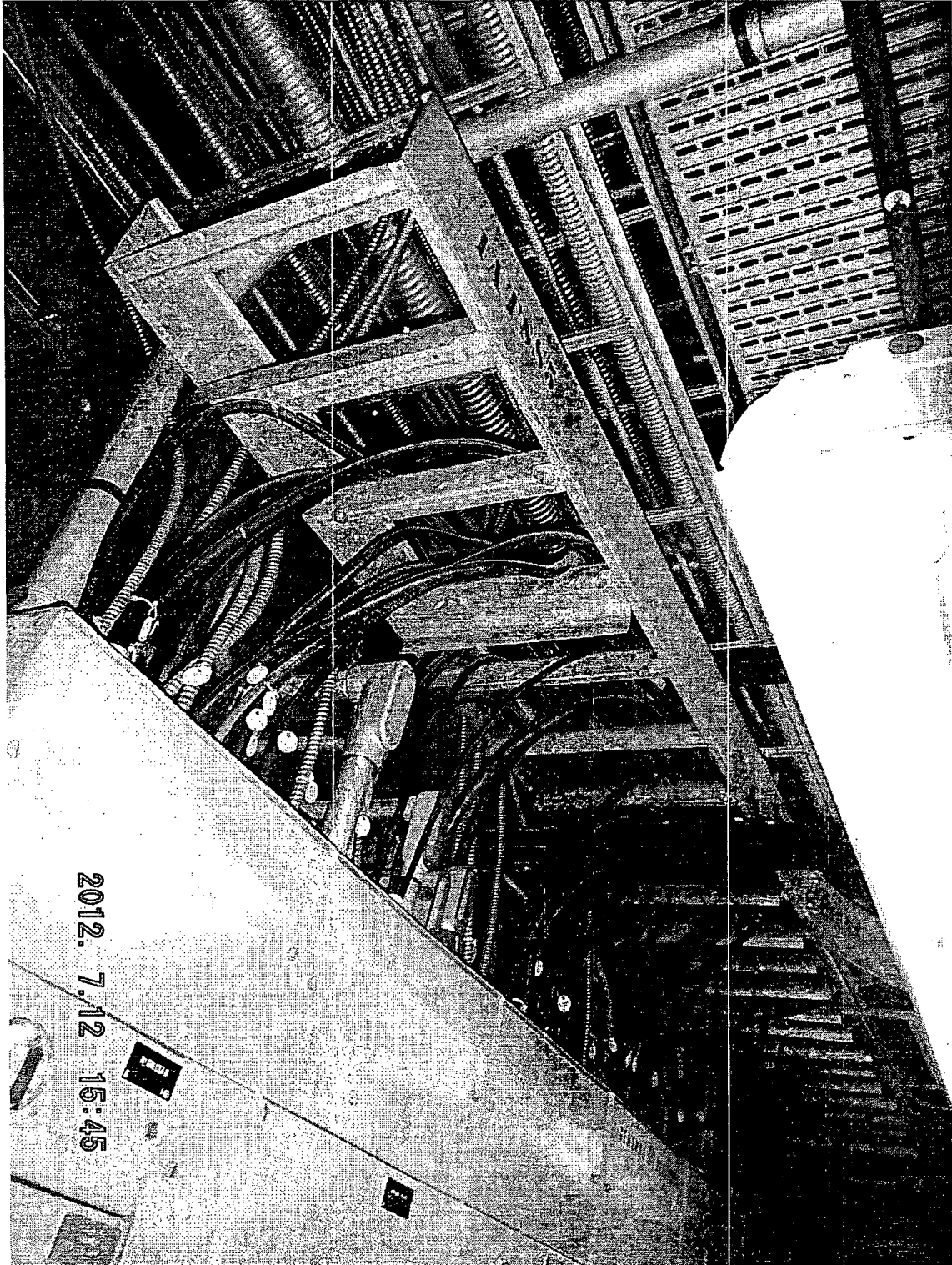
Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-011



Area Walk-By Checklist (AWC)

AWC # KW-WB-012

Page 1 of 3

Status Y N U

Location: Bldg. AUX Floor El. 568 Room, Area RHR Pump 1B Pit

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

No grout pad beneath base plate for instrument 16639. Stand is mounted with four 3/8" diameter anchor bolts. Estimate 3/4" gap beneath plate and total stand & instrument weight of 75 lbs or less. Review team judged that bending in anchor bolts from shear load due to lack grout pad to be acceptable.
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y N U N/A
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-012

Page 2 of 3

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

A 6.5 ft (approximately) tall light metal tripod with mirror is not secured and would likely fall in a seismic event. Most susceptible target is 3/8" tubing. It was judged by the review team that the light weight mirror and stand would not damage the tubing or any other SSCs in the area. Review team estimated that the stand and mirror weigh approximately 10 lbs.

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

Comments (Additional pages may be added as necessary)

Mirror is not a significant weight (judged to be about 10 lbs). It is judged to not cause damage to soft targets (nearby tubing). This is based on the tubing being well supported off of Unistrut. Instrument 16639 is not expected to fall as it has four anchors and low weight & eccentricity.

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/3/12

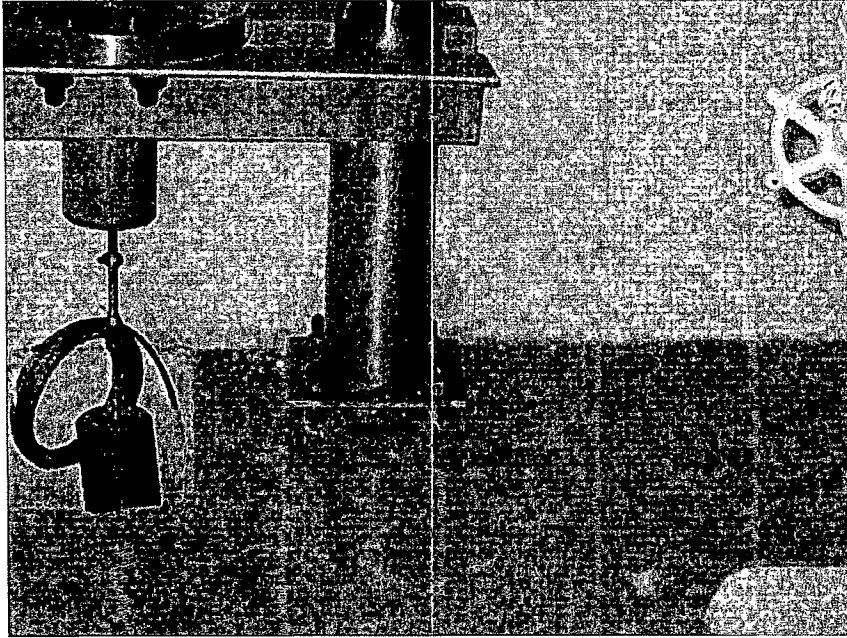
Evaluated by: Ron Little *Ronald R. Little* Date: 7/3/12

AWC # KW-WB-012

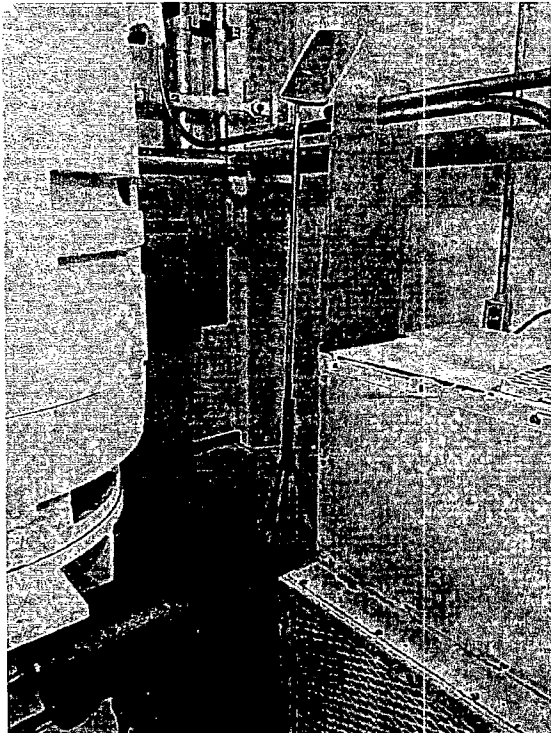
Page 3 of 3

Comments (Continuation Page)

Photos:



Instrument stand for 16639



Mirror and Tripod

Area Walk-By Checklist (AWC)

AWC # KW-WB-013

Status Y N U

Location: Bldg. Turbine Floor El. 586 Room, Area Safeguard Alley -- TDAFW Pump Room

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

Stanchion for AFW-11649-1 has no grout under base plate and a gap of 1" between F.F and base plate. Found to be acceptable by inspection due to minimum loading of pressure indicator.

CR 481486 & Work Order to grout initiated.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

Area Walk-By Checklist (AWC)

AWC # KW-WB-013

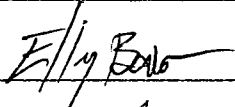
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

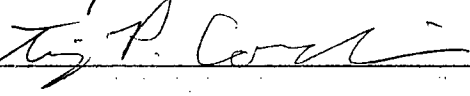
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Evaluated by: Ellery Baker  Date: 7/13/12

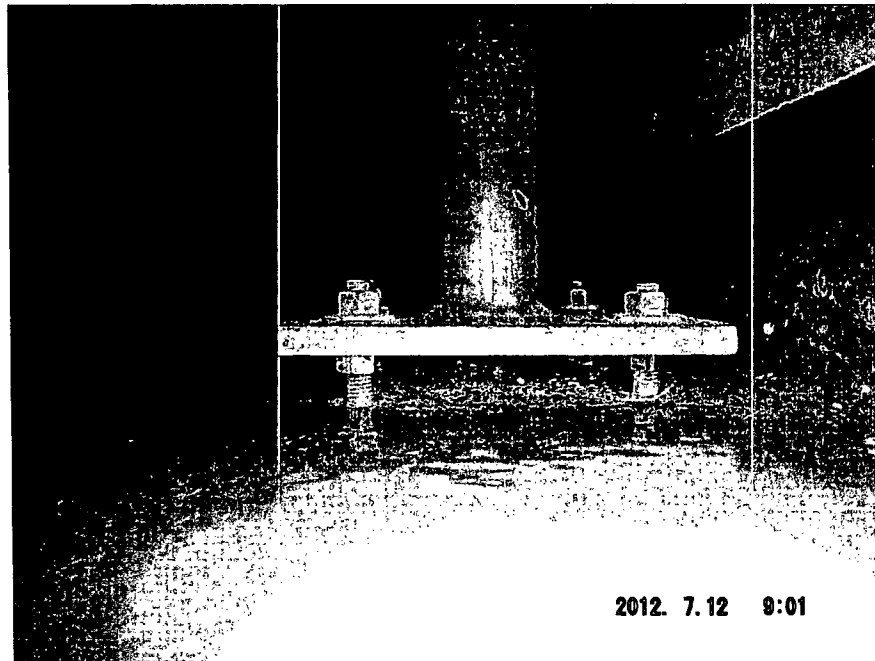
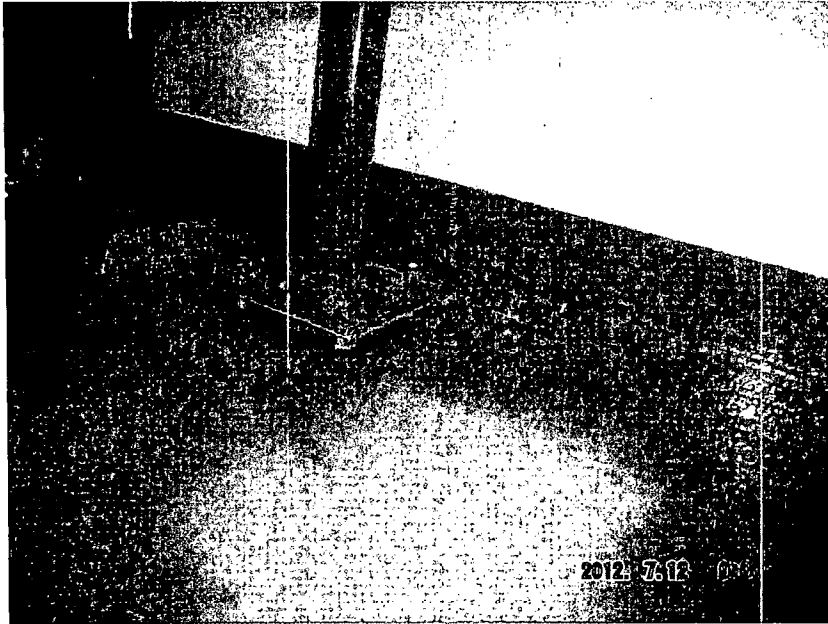
Evaluated by: Tim Corbin  Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-013

Comments (continuation page)

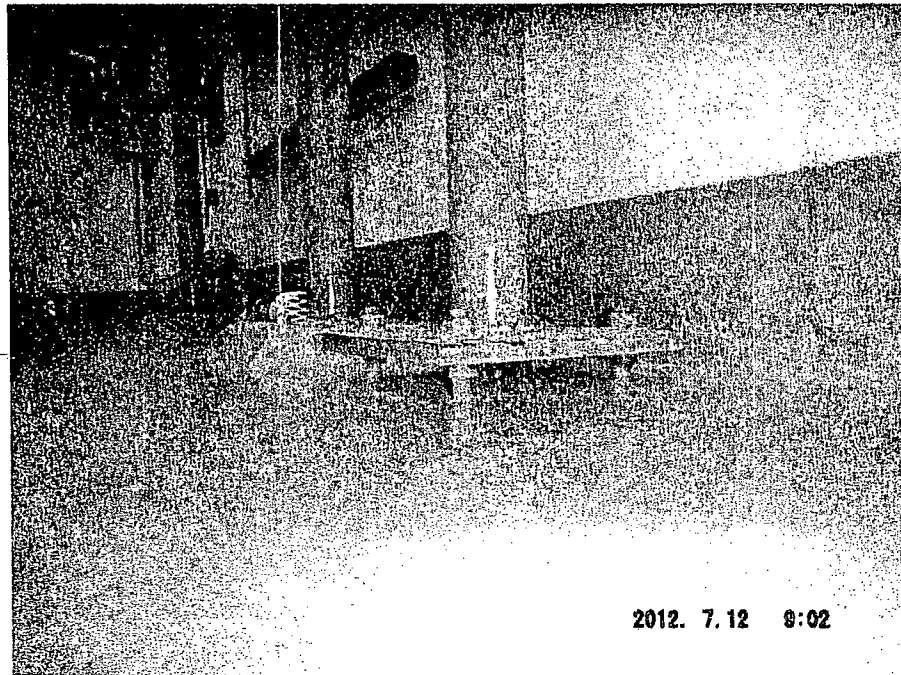
Field Walkby 7/12/12



Area Walk-By Checklist (AWC)

AWC # KW-WB-013

Comments (continuation page)



Area Walk-By Checklist (AWC)AWC # KW-WB-014Status Y N ULocation: Bldg. ADMIN Floor El. 586 Room, Area EDG Storage Tank 1A Pump Vault**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
Flex conduit.

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A
Note that, while below grade, the pit does have drain holes to prevent water accumulation.

Area Walk-By Checklist (AWC)

AWC # KW-WB-014

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

None.

Evaluated by: Tim Corbin *Tim P. Corbin* Date: 7/13/12

Evaluated by: ELLERY BAKER *Ellery Baker* Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-014

Comments (continuation page)

None.

Area Walk-By Checklist (AWC)AWC # KW-WB-015Status Y N U Location: Bldg. TURBINE Floor El. 606 Room, Area "A" Battery Room**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
Unistrut cable tray support hangers along south wall:
 - 1st lower lateral support from east slight gap identified. No seismic concerns.
 - 2nd support from east; upper lateral restraint on south wall. Bolt appears > 5° from perpendicular. Lightly loaded, no seismic concern.

4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y N U N/A
S-clips for lighting all crimped per IPEEE recommendation.
Appendix R lighting well secured.

Area Walk-By Checklist (AWC)

AWC # KW-WB-015

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A
SEWS references that steam lines from unit heater UH-6C were seismically restrained.
SW-720A piping to fan unit with portion of insulation removed.
Exposed piping showed some corrosion. Identified that a deficiency tag No. 260591 was hung but that is not a seismic concern.
Mechanical Engineering to follow up. CR 426643 was initiated.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

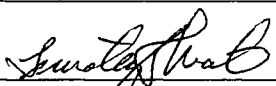
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U

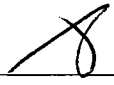
Comments (Additional pages may be added as necessary)

Support for fan IA (1-059):

- *One washer identified with deformed lock washer. Not a structural concern.*
- *Refer to KW-WD-SWEL-042*

Field Walkdown 7/11/12.

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-016

Status Y N U A

Location: Bldg. AUX Floor El. 606 Room, Area CCW Heat Exchanger Area

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

There is lack of full thread engagement on anchors on CC HX 1B on west end. Northwest anchor nut has three threads that are not engaged. Southwest anchor nut has one thread that is not engaged. Per calculation 07Q0671-C-001 these bolts do not see tensile loads so lack of full thread engagement is acceptable. CR482165 initiated to update drawings.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

A light fixture is wired to pipe hanger AC-H68. This will have a negligible effect on the hanger. It is not a seismic concern. It is recommended that wire be removed so that light fixture support chains are sharing the load equally. See CR482181.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Overhead floor drain piping has epoxy sealed bell and spigot joints. The piping is well supported and not considered to be a seismic concern.

Area Walk-By Checklist (AWC)

AWC # KW-WB-016

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U
See Note 1.

Comments (Additional pages may be added as necessary)

Note 1: Limited access near B Heat Exchanger requires rechecked of anchorage when B non-protected. 'B' HX area was inspected on 7/18/12.

Note 2: Area coverage from elevators up to but not including pump area (Documented separately)

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/25/12

Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/25/12

'B' HX Area Only:

Evaluated by: Tim Corbin *Tim Corbin* Date: 7/25/12

Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/25/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-017

Status Y N U

Location: Bldg. AUX Floor El. 606 Room, Area CCW IA Pump Area

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-017

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

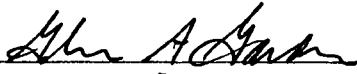
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Area includes pump bay but excludes CC Hx, walked down separately.

Evaluated by: Glenn Gardner



Date: 7/11/12

Evaluated by: Ronald R. Little



Date: 7/12/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-017

Comments (continuation page)

Field Walkby 7/10/12

Area Walk-By Checklist (AWC)AWC # KW-WB-018Status Y N ULocation: Bldg. AUX Floor El. 606 Room, Area MCC52B Hallway north to stairwell**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-018

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A
See Note 1 and 2

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U
There are masonry block walls on the east side of the filter room. Verify on drawing(s) that the walls are reinforced for seismic loading. (See Note 3)

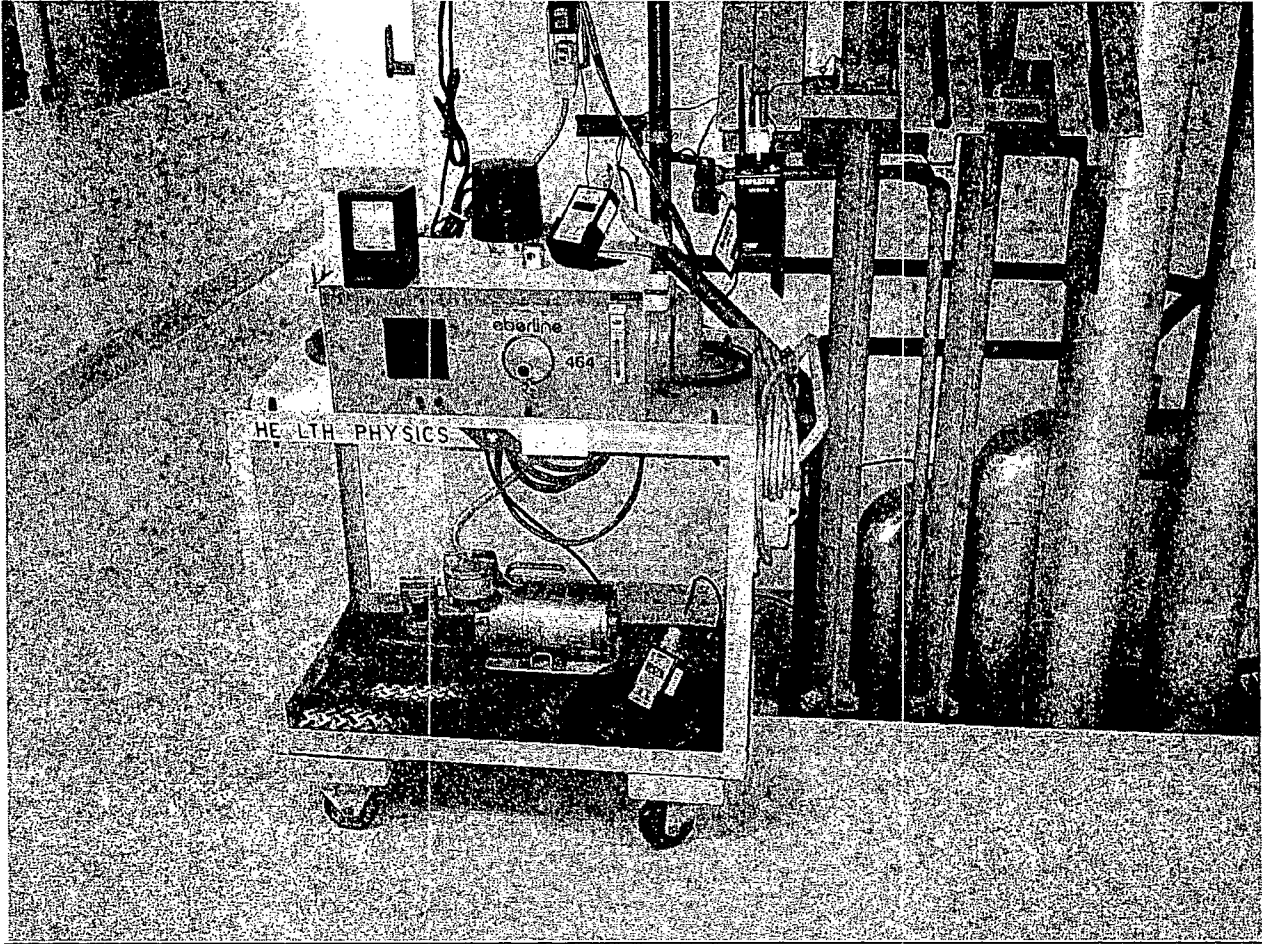
Comments (Additional pages may be added as necessary)

Notes:

- 1. Observed orange cables rear door 63 hanging from cable tray hangers. Cables are well secured and not seismic concern.*
- 2. Health physics cart is chained to wall. There are no soft targets that would be damaged by the cart.*
- 3. Drawing No. S-350 verifies that block wall is a reinforced masonry wall. Therefore, no seismic concern.*

Area Walk-By Checklist (AWC)

AWC # KW-WB-018



Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-019

Status Y N U

Location: Bldg. AUX Floor El. 606 Room, Area Relay Room

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

See Item #2 (RR128, RR129), below

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

RR128 and RR129 have grout in area of anchorage. There is some surficial material loss at feathered edges which is common in thin overlays. This does not significantly challenge the anchors. Based on drawing S-324, Detail B, the grout is at 5/8" grouted anchor locations. The embedment per the plan is 12 diameters (approximately 7.5"), which is sufficient to transfer load through minor surface discontinuities.

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

See question #4 on conduit supports/duct work. Cable tray 1RT154N was identified with cables above the tray. Both SWE's agreed this was not a seismic concern based on inspection of adjacent cable tray supports. The cable tray was well supported and there were no signs of distress/overloading at the supports. Electrical engineering performed follow-up inspection and noted the tray is not full, however many cables are mounded toward the front of the tray. There is no electrical concern with the routing and the cable tray is not seismically challenged.

Area Walk-By Checklist (AWC)

AWC # KW-WB-019

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

Question on duct work – Duct work is close to/in contact with lighting and isolated conduits. This is not a seismic concern because the duct work and conduit are hard targets, which will not be damaged beyond function by interaction, per EPRI NP-6041-SL guidance.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

Housekeeping CR481992 was issued to note a storage area is not marked in GMP – 01.31.01. The CR also recommended tie off of objects subject to sliding (e.g., table and chairs). However, items being stored were relatively light and would not challenge function of SCC(s). The adjacent relay racks are NSQ.

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


Comments (Additional pages may be added as necessary)

Field Walkdown 7/10/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-019

Evaluated by: Tim Wattleworth  Date: 7/23/12

Evaluated by: Daniel J. Vasquez  Date: 8/7/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-019

Comments (continuation page)

None.

Area Walk-By Checklist (AWC)AWC # KW-WB-020Status Y N ULocation: Bldg. AUX Floor El. 618 Room, Area "A" MSIV Area**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)AWC # KW-WB-020

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A
See Note 1

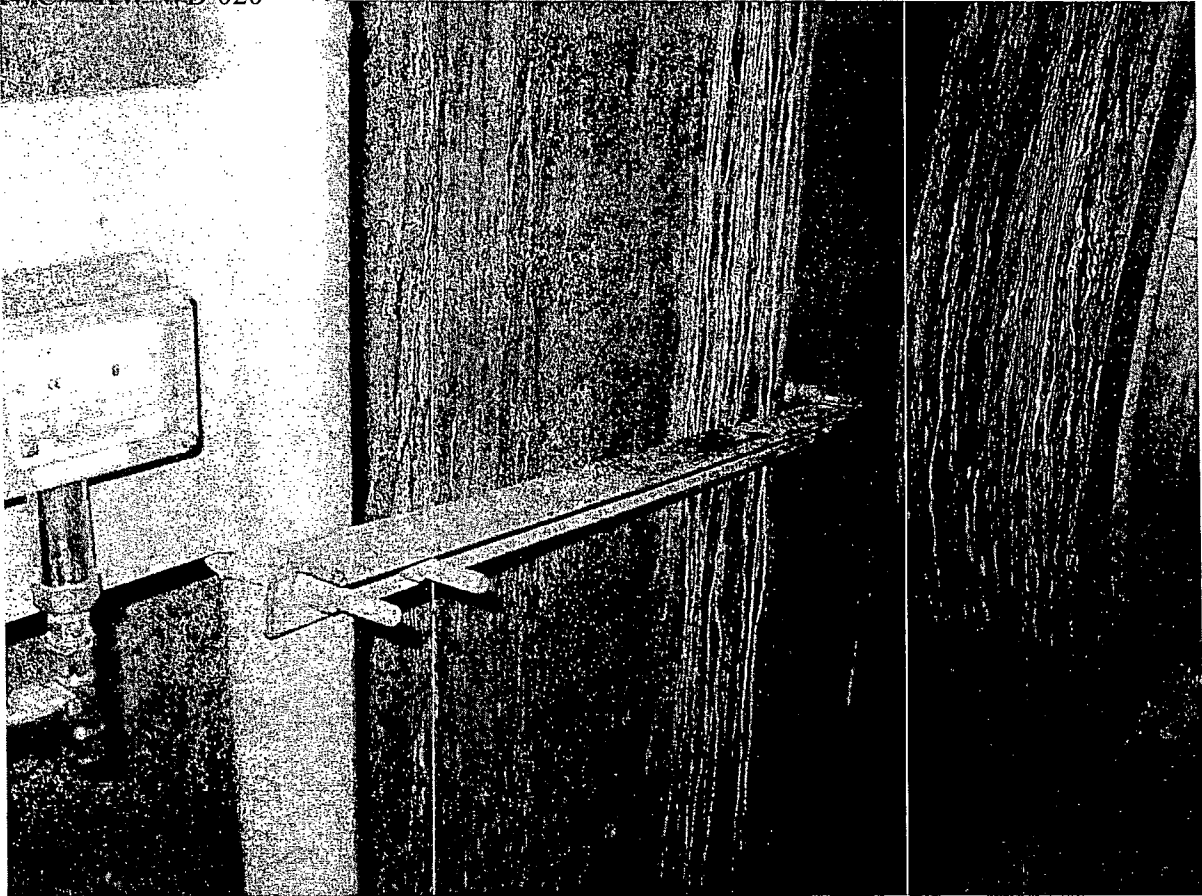
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U

Comments (Additional pages may be added as necessary)

Abandoned loose bracket's attached to instrument stand with in ST No. 16112. This was noted in KW-WD-SWEL-064.

Initiate CR 481541 to remove bracket.

AWC# KW-WB-020



Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/13/12

Evaluated by: Glenn Gardner *Glenn Gardner* Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-021

Status Y N U

Location: Bldg. AUX Floor El. 622 Room, Area SFP HX Area

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
Three (3) overhead lights above the SFP Hx have S-hooks on the chains that should be closed. The team judged that the lights will not swing off the chains. CR #481427 submitted recommending that S-hooks be secured.

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

Area Walk-By Checklist (AWC)

AWC # KW-WB-021

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

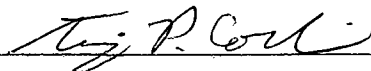
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

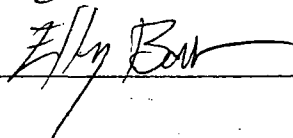
Investigated two (2) storage areas (one ladder, two (2) mop buckets). Did not identify any adverse interactions.

Evaluated by: Tim Corbin



Date: 7/13/12

Evaluated by: Ellery Baker



Date: 7/13/12

Area Walk-By Checklist (AWC)AWC # KW-WB-022Status Y N U Location: Bldg. AUX Floor El. 626 Room, Area Control Room**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A
Several anchor bolts on mechanical vertical A, B, C panels and electrical vertical panel 1A were noted to have poor thread engagement.

SEWS for MVP-1B noted it to have worst case anchorage of MVP's IER 92-038 (3/11/92) Reviewed anchorage and concluded the panel was seismically adequate as found.
2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A
See above.
3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A
Appendix R lights secured with rubber straps per procedure.
4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? Y N U N/A
Ceiling tiles over panels and consoles were tied. Noted several locations midroom requiring tie replacement. Shift manager informed and initiated tie installation. No significant targets (e.g., boards, etc.)

Area Walk-By Checklist (AWC)

AWC # KW-WB-022

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A
SW shield behind mechanical vertical A in good condition.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A


7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A
 a) *Northwest corner of Control Room: cabinet within 1.5 x height of control console – no target. CR 482000 initiated to remove cabinet.*
 b) *Access way between mechanical A and electrical A has portable access stairs stored – wheels retracted, no target.*
 c) *Mechanical C corded alarm reset switch unanchored (could fall – recommended removal).*
 d) *Cart stored behind CR130 behind mechanical vertical panels, wheels locked, no target.*

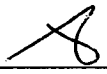
8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? Y N U

Comments (Additional pages may be added as necessary)

Bookshelves and water cooler greater than 1.5x height from consoles.

Field Walkby 7/13/2012

Evaluated by: Tim Wattleworth  for T. Wattleworth Date: 9/17/12

Evaluated by: Daniel J. Vasquez  Date: 9/17/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-023

Status Y N U

Location: Bldg. AUX Floor El. 626 Room, Area Control Rod Drive Room

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A
*Noted one unistrut connection on support outside of area walk by area.
It is a transformer supported in non-safety area of the room.*

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-023

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/10/12

Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/7/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-023

Comments (continuation page)

None.

Area Walk-By Checklist (AWC)AWC # KW-WB-024Status Y N ULocation: Bldg. AUX Floor El. 642 Room, Area Control Room Air Conditioning Room**Instructions for Completing Checklist**


This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

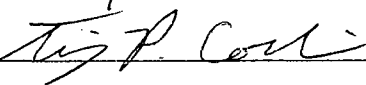
- | | |
|--|--|
| 1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)?
<i>Unistrut support for conduit to TB-2140 has both anchors lacking full thread engagement of the nuts. Approximately 1 to 1/2 threads not engaged; found to be acceptable by inspection.
See Page 3, Note 1 and Note 2</i> | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 4. Does it appear that the area is free of potentially adverse seismic spatial interactions with other equipment in the area (e.g., ceiling tiles and lighting)? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> N/A <input type="checkbox"/> |
| 8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area? | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> U <input type="checkbox"/> |

Area Walk-By Checklist (AWC)

AWC # KW-WB-024

Comments (Additional pages may be added as necessary)

Evaluated by: Ellery Baker  Date: 7/13/12

Evaluated by: Tim Corbin  Date: 7/13/12

Area Walk-By Checklist (AWC)**AWC # KW-WB-024**

Comments (continuation page)

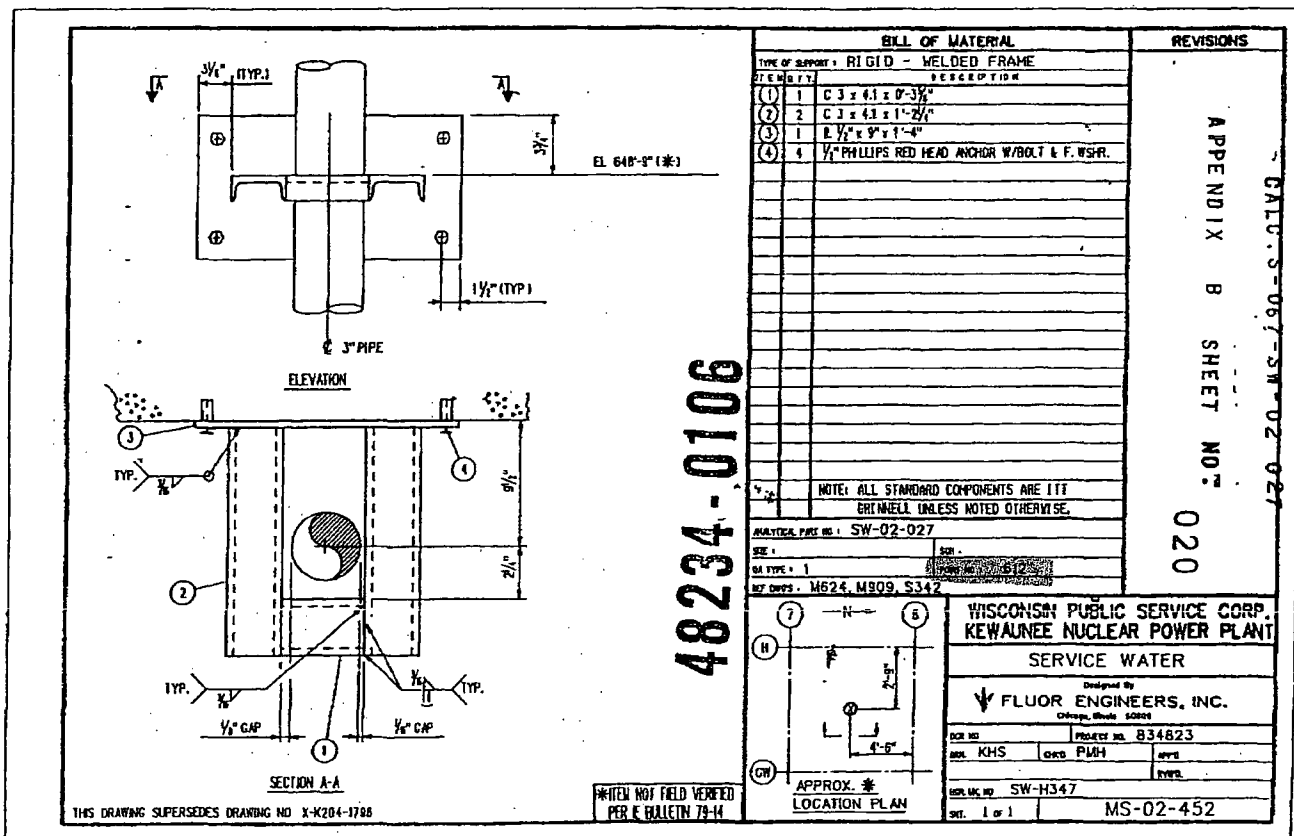
Note 1: Support SW-H347 located on west wall 6 ft. above finished floor; has two of the four anchors installed >5 degrees out of perpendicular to bearing surface. Anchors of interest are south-most two anchors. Bottom one has only 5% of bearing surface in contact with base. Plate top has <20% in contact. Not found to be a concern by inspection but bevel washers should be machined and installed to achieve at least 90% bearing surface contact. SWE contacted Site Design for a review of current installation configuration and related design calculations.

Site Design (David Eyebiokin) inspected the installation and noted that the anchor bolt threads are fully engaged however the bolt heads are not flush on top of the base plate. SW-H347 is on a 3" diameter Control Room Chiller 1B Service Water return line. The piping is safety related and is analyzed piping. The result can be found in analytical part number SW-02-027. The pipe support design verification report number S-067-SW-02-027 demonstrates the adequacy of the support.

The support is modeled as inclined in the analysis of record with node 612. This approach would consider the two anchor bolts inclination in the analysis. The results showed applied loads are very low and the support members are rigid enough to carry the supplied loads. The pipe support is therefore adequately designed as-is and conforms to all applicable codes and design standards. The hanger drawing number is MS-02-452. Additional information is attached.

Note 2: Stanchion base plate for PI-11570 & ACC-11570-MAN-10/11/12 has deposit. Also has minor corrosion on base plate anchors. Similar condition on SU-H364. No seismic concerns for these conditions.

CR #120126 submitted.



10/1/87/1510262 4m 6/1/87/86

Area Walk-By Checklist (AWC)

AWC# KW-WB-024

Procedure No. 4823-4, Rev. - - 07-13-88
Form 834823-4B

FLUOR DANIEL

CALCULATIONS and SKETCHES

DATE 7-29-89
CONT NO 834823
BY AC CHK'D JC
SHEET NO 2 of 2

WISCONSIN PUBLIC SERVICE CORPORATION
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1
CARLTON, KEWAUNEE COUNTY, WISCONSIN

HGR. MK. NO: SW-H347 CALC. S-067-SW-02-027

NOTE 1

SHEET NO. 125

TOTAL LOADS UNDER EMERGENCY AND FAULTED CONDITION LOAD COMBINATION ARE DIVIDED BY A FACTOR OF 1.5 AND COMPARED WITH THE UPSET LOAD COMBINATION TO ESTABLISH GOVERNING LOAD. THE GOVERNING LOAD IS THE LARGER OF THE FACTORED LOAD AND THE UPSET LOAD COMBINATION. ANALYSIS WILL BE PERFORMED FOR THE GOVERNING LOAD AND THE RESULTS COMPARED TO THE NORMAL OPERATING CONDITION ALLOWABLE. IF THE CALCULATED STRESSES EXCEED THE ALLOWABLE STRESS FOR THE NORMAL OPERATING CONDITION, SEPARATE ANALYSES FOR EACH LOAD COMBINATION WILL BE PERFORMED. THE APPROPRIATE ALLOWABLE GIVEN IN PROCEDURE #4823-4, SECTION 7.0 WILL THEN BE APPLICABLE.

NOTE 2

INCREASE GOVERNING LOAD BY 10% OR 50 LBS. (FT - LBS.), WHICHEVER IS LARGER, IF THIS INCREASE DOES NOT RESULT IN OVERSTRESS CONDITION. THE INCREASED LOADS ARE USED IN THE ANALYSIS TO AVOID FUTURE REANALYSIS FOR SMALL LOAD INCREASES.

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Area Walk-By Checklist (AWC)

AWC# KW-WB-024

Procedure No. 4823-4, Rev. 1 - 3/23/87
Form 834823-4C

FLUOR DANIEL

DATE 5-01-89

CALCULATIONS and SKETCHES

CONT NO. 834823

BY K CHK'D JL
SHEET NO.

WISCONSIN PUBLIC SERVICE CORPORATION
KEWAUNEE NUCLEAR POWER PLANT - UNIT NO. 1
CARLTON, KEWAUNEE COUNTY, WISCONSIN

GALC.S-067-SW-02-027

HGR. MK. NO: SW-H347

AUX. STEEL LOAD CHECK:

SHEET NO: 126

Items ① & ② C3 x 4.1

FRICTION FORCE = $0.3 \times (8+50) = 17.4^{\#}$ 50y 18"
FOR CONVENIENCE CONS CONSIDER ONLY ONE VERTICAL MEMBER EFFECTIVELY
TAKING LOADS

$$f_b = \frac{.077 \times 9.5}{1.10} + \frac{0.0094(0.3 \times 8 + 1.19) \times (14.25 - \frac{7}{2})}{0.202} + \frac{0.018 \times 9.5}{(\frac{1}{2} \times 0.202)}$$

$$= 0.67 + 0.35 + 1.69 = 2.71^{\text{ksi}} < 2.16^{\text{ksi}}$$

Items ③ & ④ R $\frac{1}{2}$ " x 9" x 1'-4" & 2" RFD HEAD

$$T_M = \frac{.77 \times 9.5}{2 \times 10.75} + \frac{4.1 \times (.3 + 1.19) (14.25 - 2)}{2 \times 7.5} + 18 \times 9.5 = 29 + 70 = 99^{\#}$$

$$\frac{b}{a} = \frac{(9 - 1.41 - 3.25)}{9} = 0.43 \quad \gamma = 1.8 \quad F_T = 99 \times 1.8 = 178^{\#}$$

$$F_V = \frac{1}{2} \sqrt{(.77)^2 + (4.1(.3 + 1.19) + 18)^2} = 31^{\#}$$

ANCHOR F.S. = $\frac{1}{\sqrt{(\frac{178}{9259})^2 + (\frac{31}{6856})^2}} = 95 > 5$

2" R
CONS $f_b = \frac{2 \times 0.049 \times \frac{1}{2} (14.25)}{\frac{9}{6} \times 0.5^2} = 1.86^{\text{ksi}} < 2.16^{\text{ksi}}$

WELDS (BETWEEN AUX STEEL MEMBERS) OK

CONS $f_w = 1.44 \times (0.272)^{\text{THICKNESS OF FLANGE EQ}} = 0.39^{\text{ksi}} < 1.8^{\text{ksi}}$ OK

THIS HANGER IS ADEQUATE

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FORM E-0 JPD 12/86
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Area Walk-By Checklist (AWC)

AWC# KW-WB-024

Wisconsin Public Service Corporation
Kewaunee Nuclear Power Plant

Calculation No. S-067-SW-02-027, Rev. 2
Sargent & Lundy Project No. 09308-101
Page 5C

Pipe Support Load Summary and Comparison Table
Loads from DCR 3048 Analysis

Support Tag	Dir	Old Analysis	Support Qual Calc	Old Node	Current Analyzed Load	New Node	New Max Load	Status (OK or % Over)	Recon/ Calc On Page
ACC-H11	Y	New Support	S-067-SW-02-027	-	-	1259	160	OK	5D
ACC-H24	S	New Support	S-067-SW-02-027	-	-	922	205	OK	5G
ACC-H28	X	ACC-25-004	S-033-ACC-25-004	900	127	900	53	OK	N/A
ACC-H29	Y	ACC-25-004	S-033-ACC-25-004	480	176	480	154	OK	N/A
ACC-H30	Y	ACC-25-004	S-033-ACC-25-004	430	145	430	241	68%	1C
ACC-H31	Z	ACC-25-004	S-033-ACC-25-004	425	155	1425	198	28%	1C
ACC-H32	S	ACC-25-004	S-033-ACC-25-004	370	330	370	282	OK	N/A
ACC-H34	X	ACC-25-004	S-033-ACC-25-004	365	41	365	90	120%	1C
ACC-H35	S	ACC-25-004	S-033-ACC-25-004	720	242	720	192	OK	N/A
SW-H280	X	SW-02-027	S-067-SW-02-027	605	101	1605	32	OK	N/A
SW-H280	Y	SW-02-027	S-067-SW-02-027	605	421	1805	424	1%	N/A
SW-H282	Y	SW-02-027	S-067-SW-02-027	595	102	2595	72	OK	N/A
SW-H307	Y	SW-02-027	S-067-SW-02-027	655	299	655	160	OK	N/A
SW-H308	X	SW-02-027	S-067-SW-02-027	645	88	1645	39	OK	N/A
SW-H308	Y	SW-02-027	S-067-SW-02-027	645	173	1845	131	OK	N/A
SW-H308	Z	SW-02-027	S-067-SW-02-027	645	117	1645	77	OK	N/A
SW-H309	Y	SW-02-027	S-067-SW-02-027	640	208	640	176	OK	N/A
SW-H310	X	SW-02-027	S-067-SW-02-027	635	145	635	101	OK	N/A
SW-H310	Y	SW-02-027	S-067-SW-02-027	635	798	635	649	OK	N/A
SW-H342	Y	SW-02-027	S-067-SW-02-027	550	108	550	64	OK	N/A
SW-H343	Y	SW-02-027	S-067-SW-02-027	567	371	567	169	OK	N/A
SW-H344	Y	New Support	S-067-SW-02-027	-	-	1622	184	OK	117
SW-H345	Y	SW-02-027	S-067-SW-02-027	590	318	2590	134	OK	N/A
SW-H345	Z	SW-02-027	S-067-SW-02-027	590	129	1590	47	OK	N/A
SW-H348	X	SW-02-027	S-067-SW-02-027	616	137	616	85	OK	N/A
SW-H349	Y	SW-02-027	S-067-SW-02-027	623	738	623	462	OK	N/A
SW-H350	Z	SW-02-027	S-067-SW-02-027	623	160	623	128	OK	N/A
SW-H351	X	SW-02-027	S-067-SW-02-027	670	61	1670	25	OK	N/A
SW-H351	Y	SW-02-027	S-067-SW-02-027	670	429	1670	420	OK	N/A
SW-H351	Z	SW-02-027	S-067-SW-02-027	670	62	1670	47	OK	N/A
SW-H353	X	SW-02-027	S-067-SW-02-027	675	149	675	40	OK	N/A
SW-H354	Y	SW-02-027	S-067-SW-02-027	685	333	685	184	OK	N/A
SW-H359	Z	SW-02-025	S-042-SW-02-024	222	91	222	169	86%	1D
SW-H360	Y	SW-02-025	S-042-SW-02-024	230	500	230	388	OK	N/A
SW-H363	Y	New Support	S-067-SW-02-027	-	-	240	693	OK	175A
SW-H364	Y	New Support	S-067-SW-02-027	-	-	247	376	OK	175F
SW-H365	Y	SW-02-025	S-042-SW-02-024	285	300	285	181	OK	N/A
SW-H546	X	SW-02-027	S-067-SW-02-027	658	13	658	6	OK	N/A
SW-H546	Z	SW-02-027	S-067-SW-02-027	658	73	658	34	OK	N/A
SW-H739	X	SW-02-025	S-120-SW-02-026	585	217	585	325	50%	1D
SW-H739	Z	SW-02-025	S-120-SW-02-026	585	223	585	196	OK	N/A
SW-H740	X	SW-02-025	S-120-SW-02-026	545	130	545	106	OK	N/A
SW-H740	Z	SW-02-025	S-120-SW-02-026	545	126	545	84	OK	N/A
SW-H741	X	SW-02-025	S-120-SW-02-026	520	83	520	43	OK	N/A
SW-H741	Z	SW-02-025	S-120-SW-02-026	520	87	520	33	OK	N/A
SW-H742	Y	SW-02-025	S-120-SW-02-026	495	365	495	309	OK	N/A
SW-H742	Z	SW-02-025	S-120-SW-02-026	495	82	495	39	OK	N/A
SW-H743	X	SW-02-025	S-120-SW-02-026	475	120	475	118	OK	N/A
SW-H743	Y	SW-02-025	S-120-SW-02-026	475	294	475	241	OK	N/A
SW-H744	Y	SW-02-025	S-036-SW-02-023	440	295	440	281	OK	N/A
SW-H744	Z	SW-02-025	S-036-SW-02-023	440	76	440	36	OK	N/A
SW-H745	Y	SW-02-025	S-121-SW-02-025	425	361	425	307	OK	N/A

Area Walk-By Checklist (AWC)

AWC# KW-WB-024

Wisconsin Public Service Corporation
Kewaunee Nuclear Power Plant

Calculation No. S-067-SW-02-027, Rev. 2
Sargent & Lundy Project No. 09308-101
Attachment A
Page 96

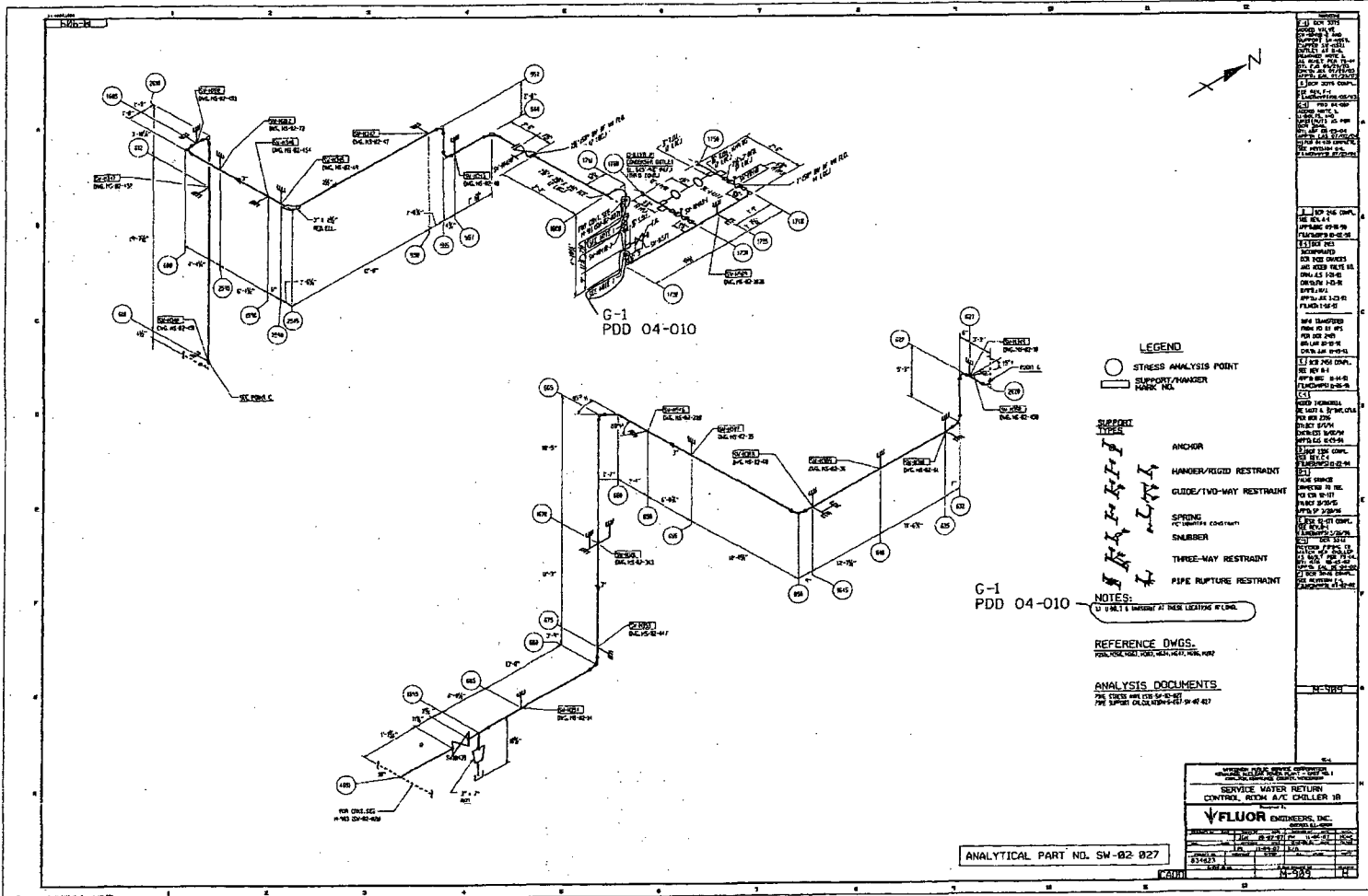
SW027NEW KEWAUNEE NUCLEAR POWER PLANT REBIS
09/25/2001 ANALYTICAL PART NO. SW-02-027 AutoPIPE+6.00 RESULT PAGE 939

RESTRAINT REACTIONS

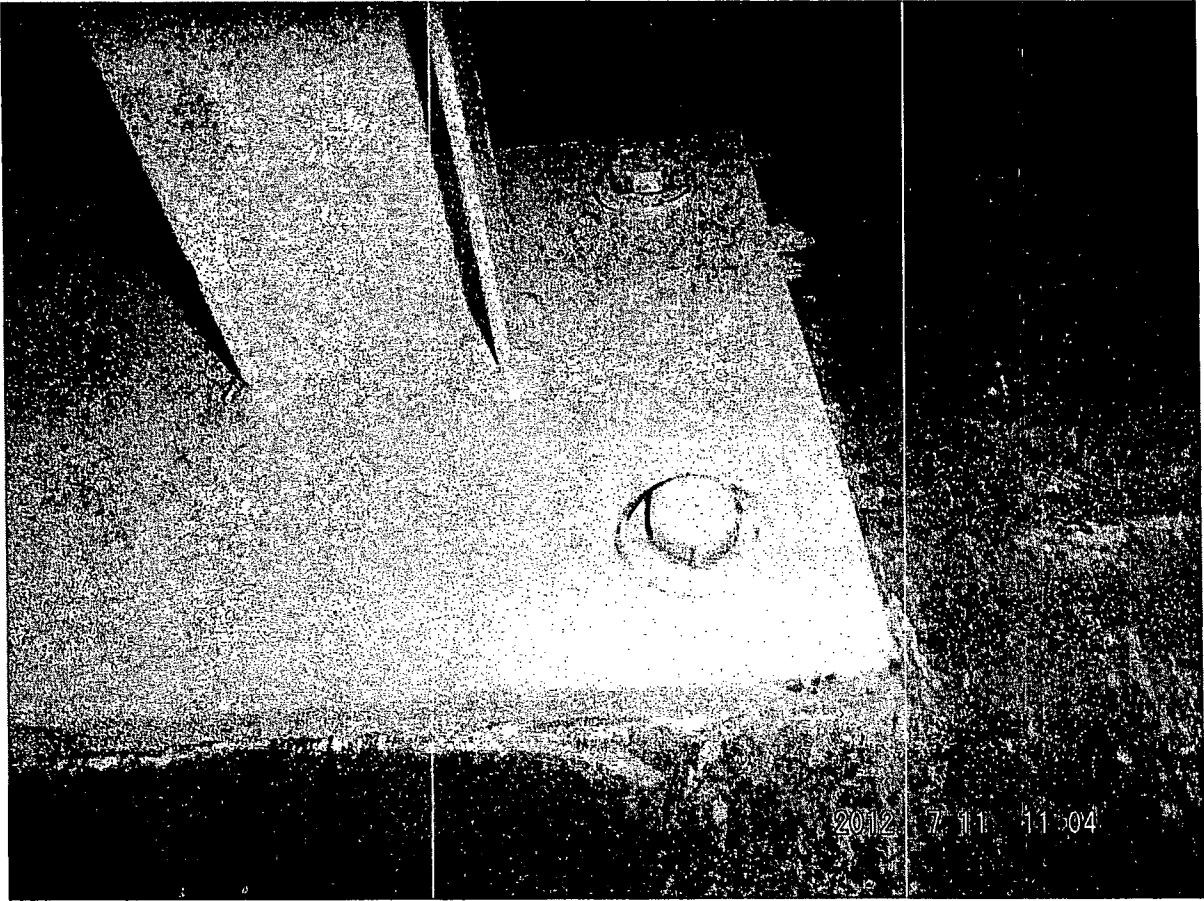
Point name	Load combination	FORCES (lb)				MOMENTS (ft-lb)			
		X	Y	Z	Result	X	Y	Z	Result
	Inclined [ID: SWH347]								
GR		0	0	-8	8	0	0	0	0
T1		0	0	-5	5	0	0	0	0
T2		0	0	3	3	0	0	0	0
S1		0	0	0	0	0	0	0	0
S2		0	0	0	0	0	0	0	0
R1		0	0	9	9	0	0	0	0
R2		0	0	11	11	0	0	0	0
TMAX		0	0	3	3	0	0	0	0
TMIN		0	0	-5	5	0	0	0	0
GR+XYDBE		0	0	0	0	0	0	0	0
GR-XYDBE		0	0	-17	17	0	0	0	0
GR+ZYDBE		0	0	3	3	0	0	0	0
GR-ZYDBE		0	0	-19	19	0	0	0	0
GR+XYDBE		0	0	9	9	0	0	0	0
GR-XYDBE		0	0	-25	25	0	0	0	0
GR+ZYDBE		0	0	14	14	0	0	0	0
GR-ZYDBE		0	0	-30	30	0	0	0	0
OPE+XYDBE		0	0	3	3	0	0	0	0
OPE-XYDBE		0	0	-22	22	0	0	0	0
OPE+ZYDBE		0	0	6	6	0	0	0	0
OPE-ZYDBE		0	0	-24	24	0	0	0	0
OPE+XYDBE		0	0	12	12	0	0	0	0
OPE-XYDBE		0	0	-30	30	0	0	0	0
OPE+ZYDBE		0	0	17	17	0	0	0	0
OPE-ZYDBE		0	0	-35	35	0	0	0	0

Area Walk-By Checklist (AWC)

AWC#-KW-WB-024

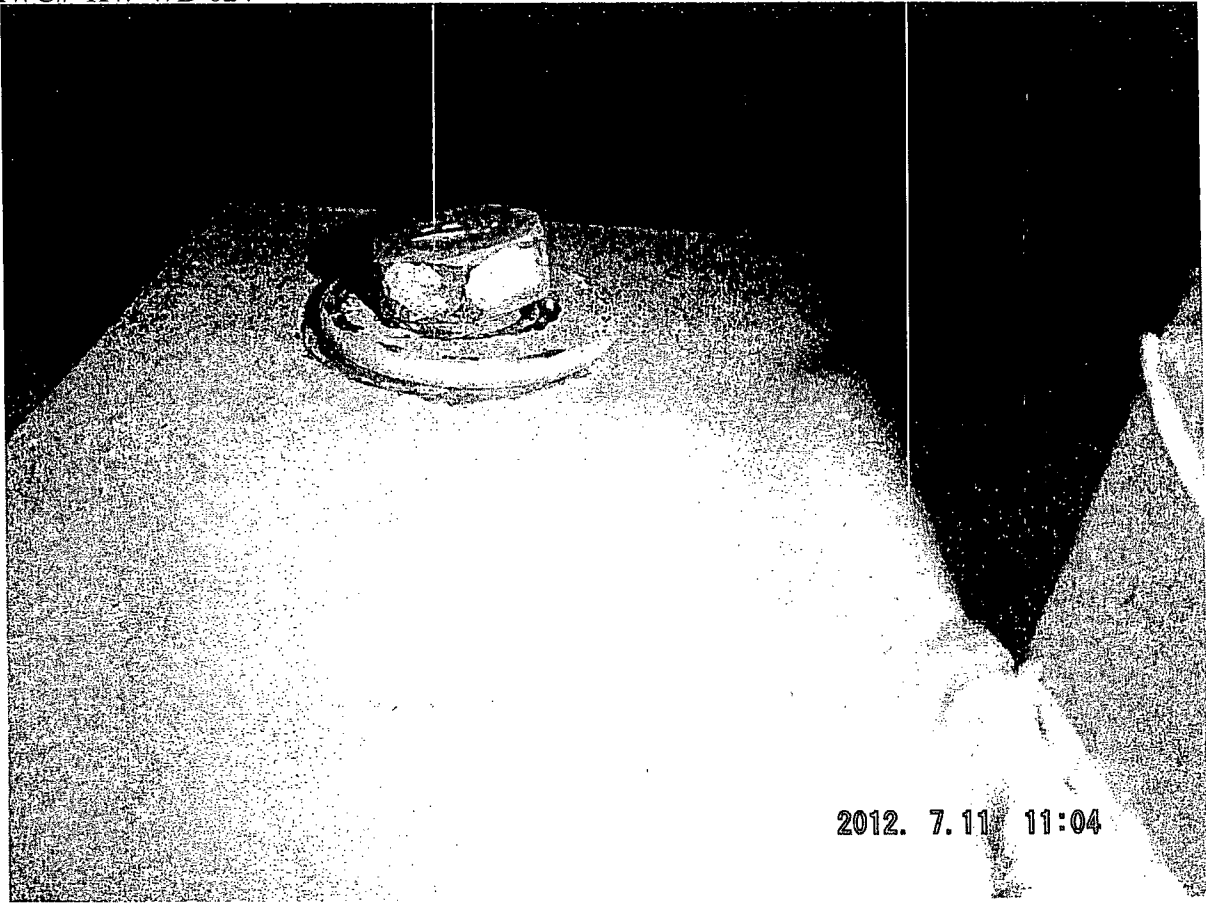


AWC# KW-WB-024



Area Walk-By Checklist (AWC)

AWC# KW-WB-024



Area Walk-By Checklist (AWC)

AWC# KW-WB-024



2012. 7.11 11:04

AWC# KW-WB-024



2012. 7.11 11:04

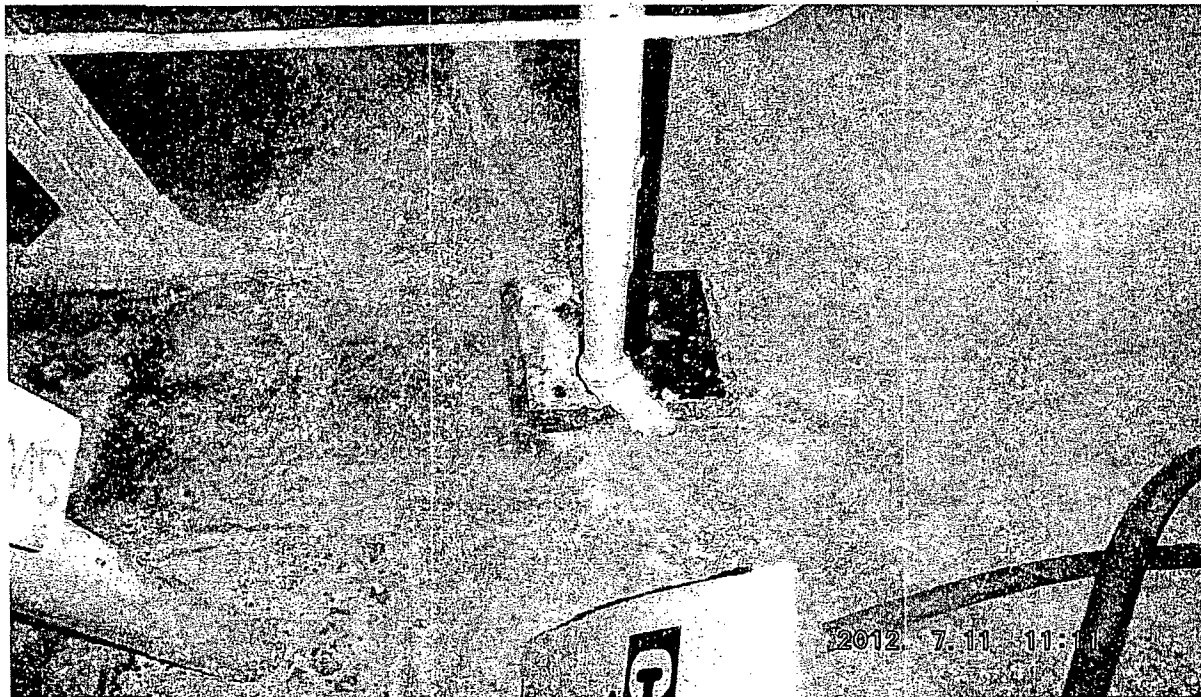
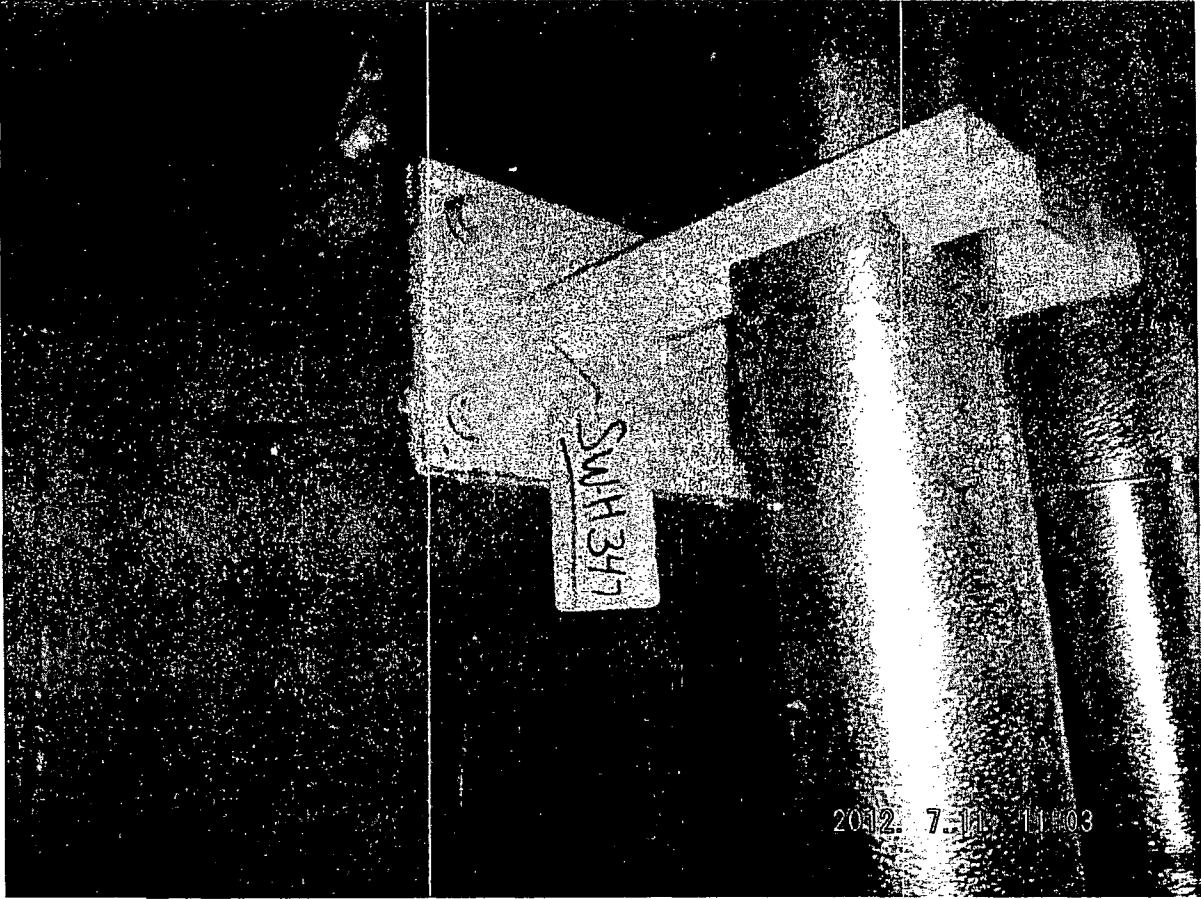
Area Walk-By Checklist (AWC)

AWC# KW-WB-024



Area Walk-By Checklist(AWC)

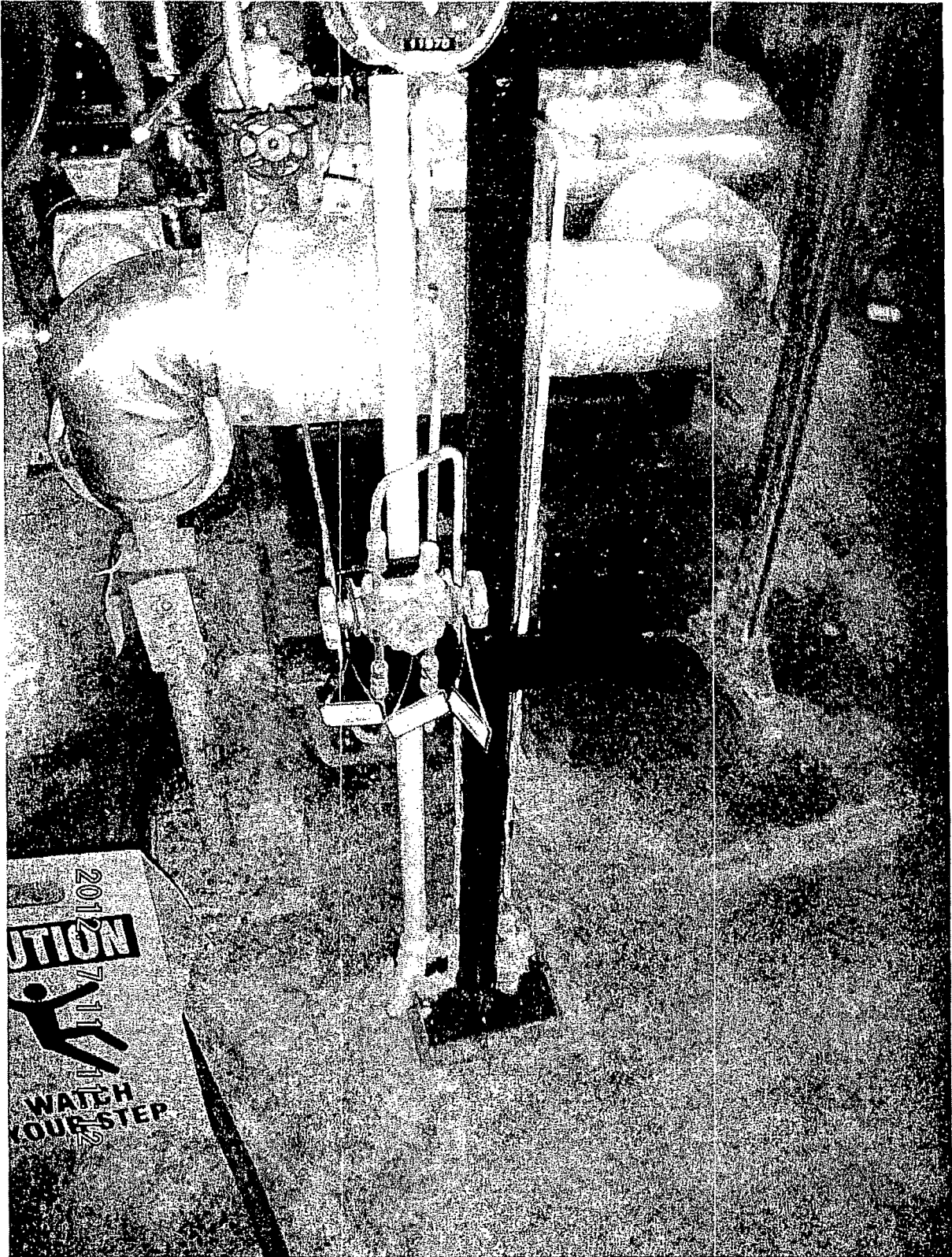
AWC# KW-WB-024



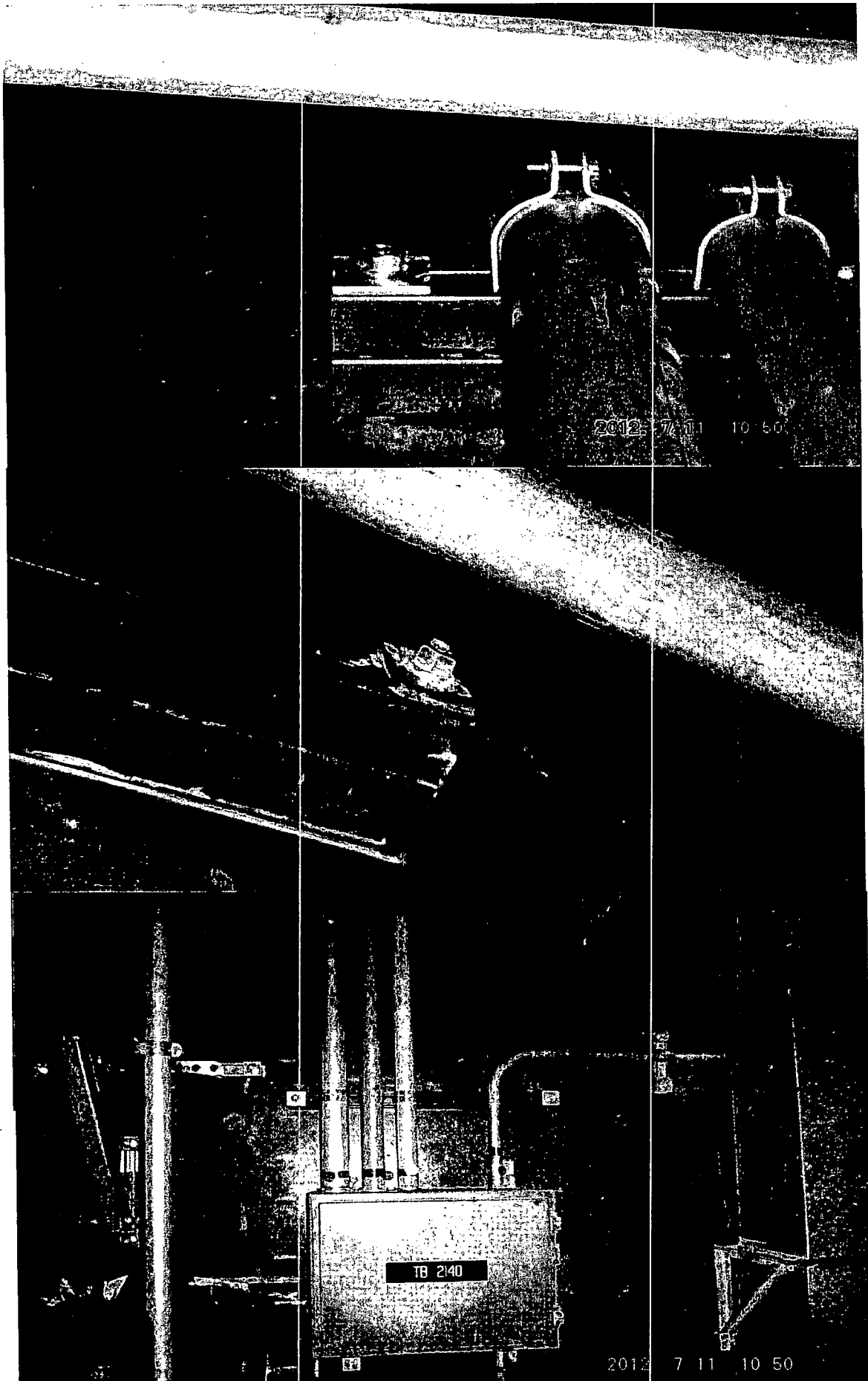
AWC# KW-WB-024



AWC# KW-WB-024



AWC# KW-WB-024



Area Walk-By Checklist (AWC)

AWC # KW-WB-025

Status Y N U

Location: Bldg. AUX Floor El. 642 Room, Area Shield Bldg Filter Floor (west half)

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

Some minor corrosion on base plate of pipe hanger on floor near shield building wall. There are no structural integrity concerns.

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

4" – 6" diameter floor drain piping appears to have epoxy bonded connections, not welded connections. The piping is well supported, approximately every 12 feet. It has bell and spigot fittings. It is not expected to fall during earthquake because it is well supported and partly constrained by ceiling penetration. See picture on page 3.

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

Area Walk-By Checklist (AWC)

AWC # KW-WB-025

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

None

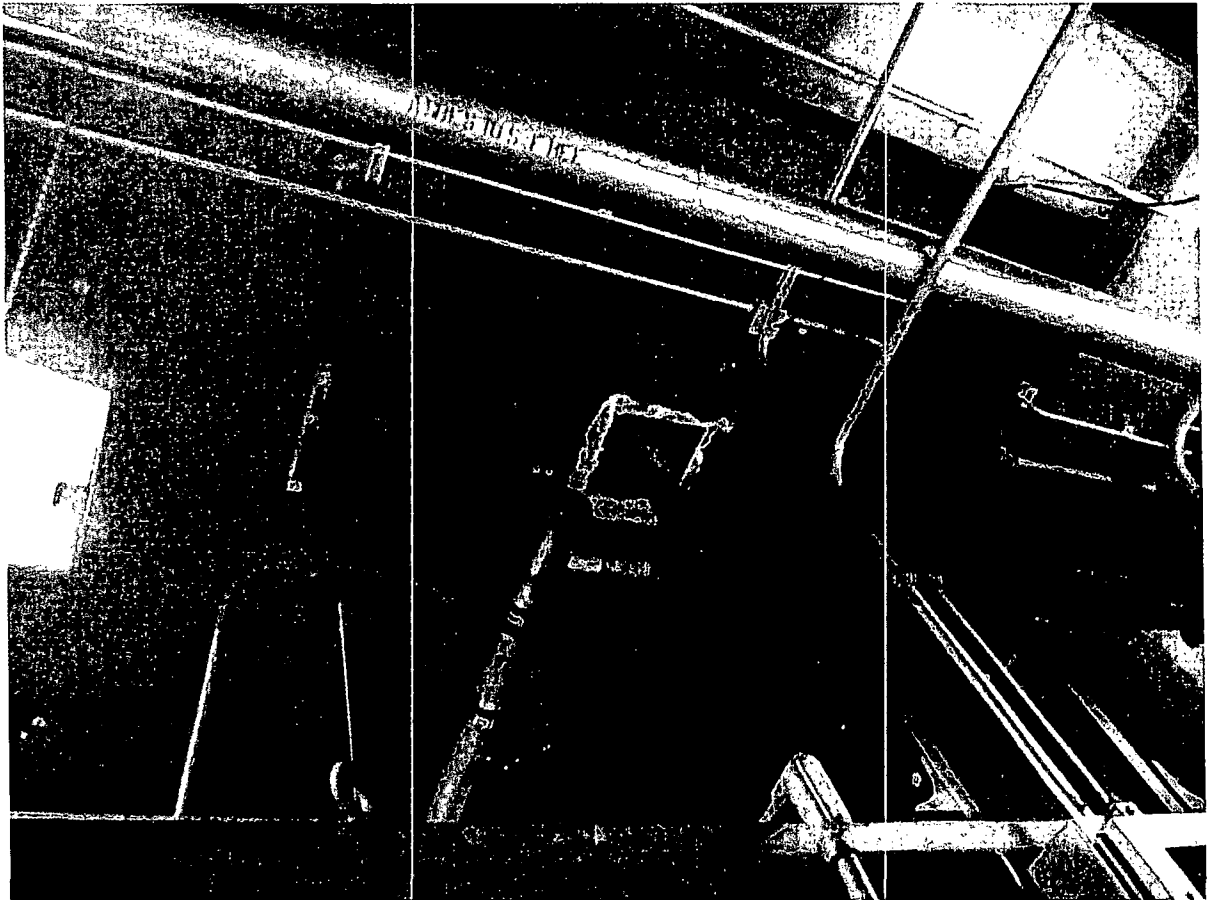
Evaluated by: Ronald R. Little *Ronald R. Little* Date: 7/13/12

Evaluated by: Glen Gardner *Glen Gardner* Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-025

Comments (continuation page)



Area Walk-By Checklist (AWC)AWC # KW-WB-026Status Y N ULocation: Bldg. AUX Floor El. 606 Room, Area RHR Heat Exchanger Room**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-026

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area?

Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)?

Y N U N/A

8. Have you looked for and found no other seismic conditions that could adversely affect the safety functions of the equipment in the area?

Y N U

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin



Date: 7/13/12

Evaluated by: Ellery Baker



Date: 7/10/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-026

Comments (continuation page)

Field Walkby 7/10/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-027

Status Y N U

Location: Bldg. AUX Floor El. 606 Room, Area RCA West of Door 63, 84018 Area

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

Base plate of Fire Line Support upstream of SW-6006-1 has one anchor bolt removed (sawed off below base plate), Relatively small line with adjacent support. Not a seismic challenge.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

TB-2411 in overhead is supported on double unistrut which would be provided with spring nut/bolt connection inside channel. This could not be seen from floor but is judged to be acceptable (a standard connection method).

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

- *Seismically stabilized scaffold (floor to ceiling).*
- *Light chains crimped per IPEEE Recommendations*

Area Walk-By Checklist (AWC)

AWC # KW-WB-027

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A


6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

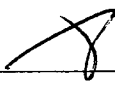
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/12/12

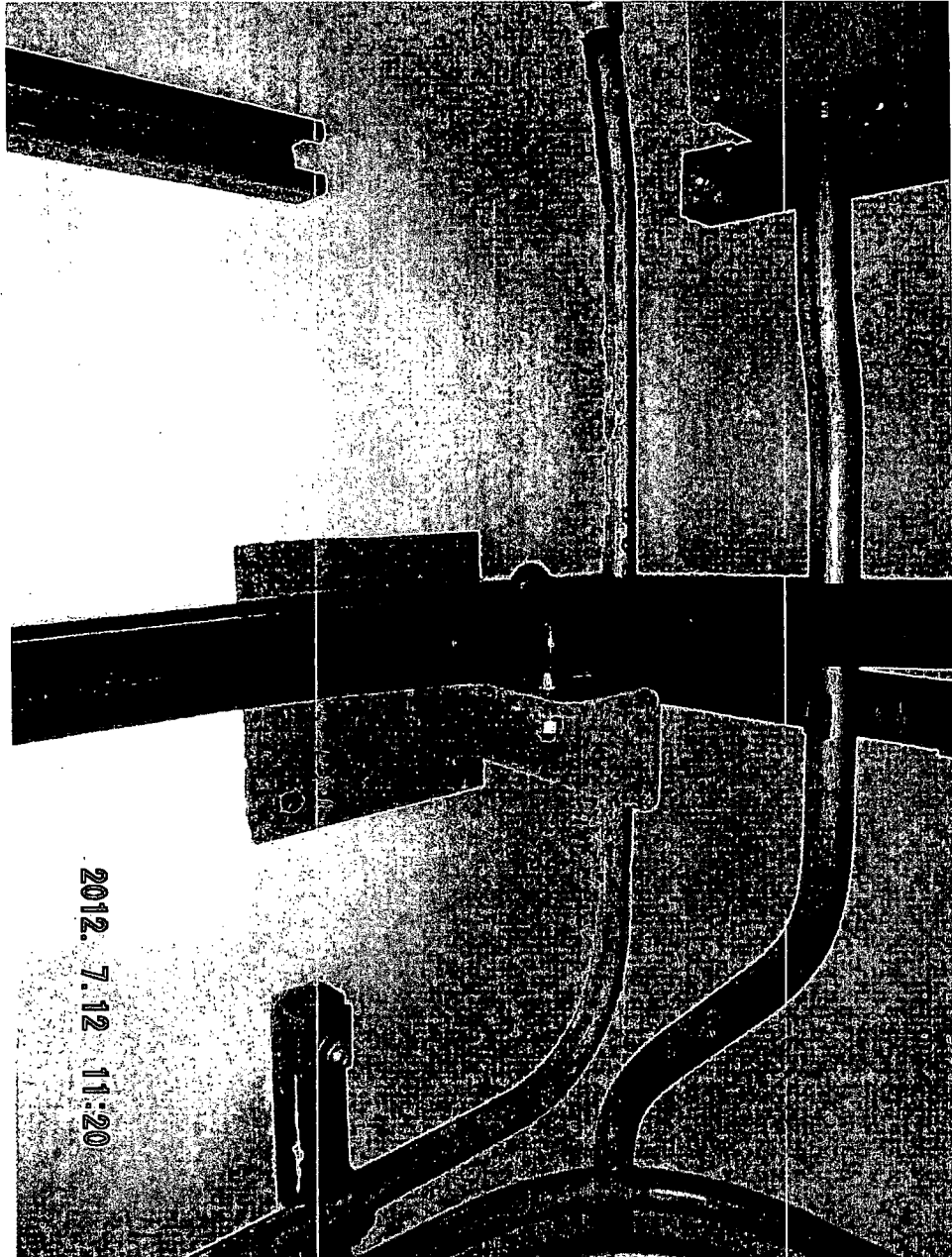
Evaluated by: Tim Wattleworth  Date: 7.23.12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-027

Comments (continuation page)

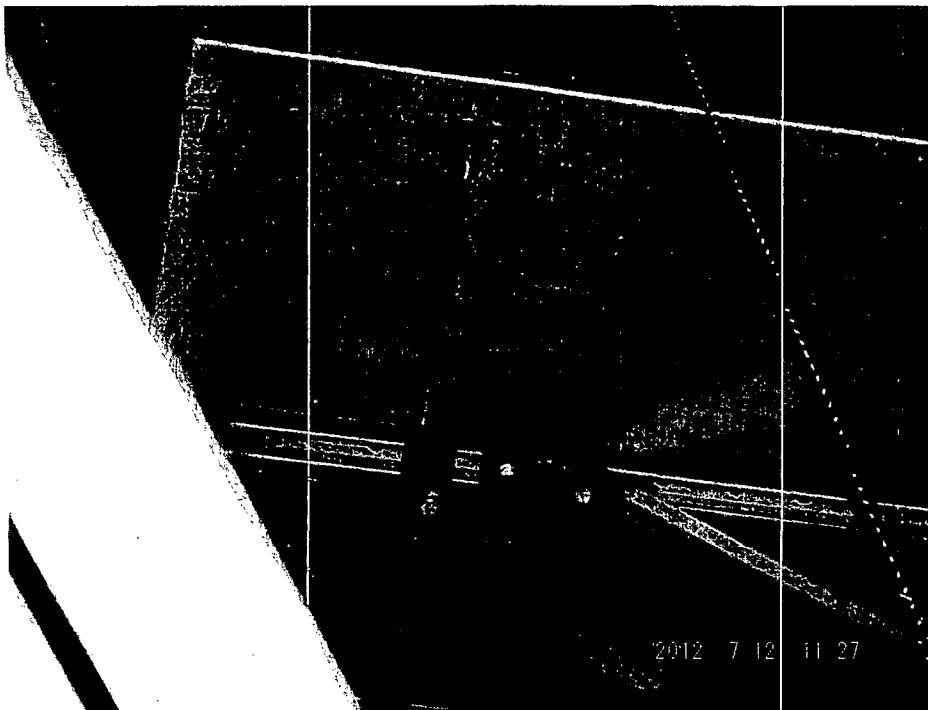
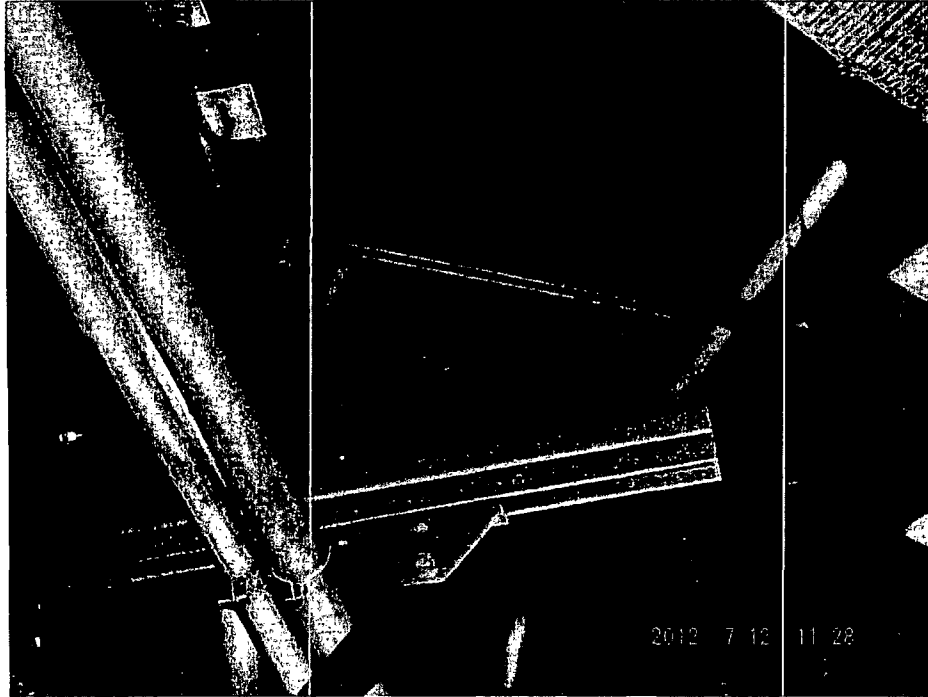


Missing bolt on fire line support base plate.

Area Walk-By Checklist (AWC)

AWC # KW-WB-027

Comments (continuation page)



TB-2411 in the overhead.

Area Walk-By Checklist (AWC)

AWC # KW-WB-028

Status Y N U

Location: Bldg. ADMIN Floor El. 586 Room, Area. Tunnel Area Between Doors 1 & 2

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-028

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Missing mounting screw on "Mercontrol" 1 6060. One of 3 req'd. 7" dia device is small; 2 mounting screws acceptable pending maintenance. CR 481415.

Evaluated by: Ronald R. Little Ronald R. Little Date: 7/13/12
Evaluated by: Glenn Gardner Glenn Gardner Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-028

Comments (continuation page)



Area Walk-By Checklist (AWC)

AWC # KW-WB-029

Status Y N U

Location: Bldg. AUX Floor El. 657' Room, Area Aux Bldg Fan Floor Southeast Corner

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

UH-7H GW, 3.1 vertical cantilever brace is not rigid and deflects easily. There are no targets below UH-7H. There is minimal risk of a potential flood source if Supply/Return Lines were to break. Steam supply to UH-7H is low pressure. Therefore, it is not a flooding or spray concern.

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

Area Walk-By Checklist (AWC)

AWC # KW-WB-029

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

- See comments on UH-7H under item #3 on page 2.
- Roof drain at GW, 4 shows signs of leakage with precipitate on pipe and wall. No targets.

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

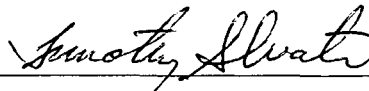
7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Field Walkdown 7/11/12

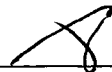
Comments (Additional pages may be added as necessary)

Evaluated by: Tim Wattleworth



Date: 7/23/12

Evaluated by: Daniel J. Vasquez

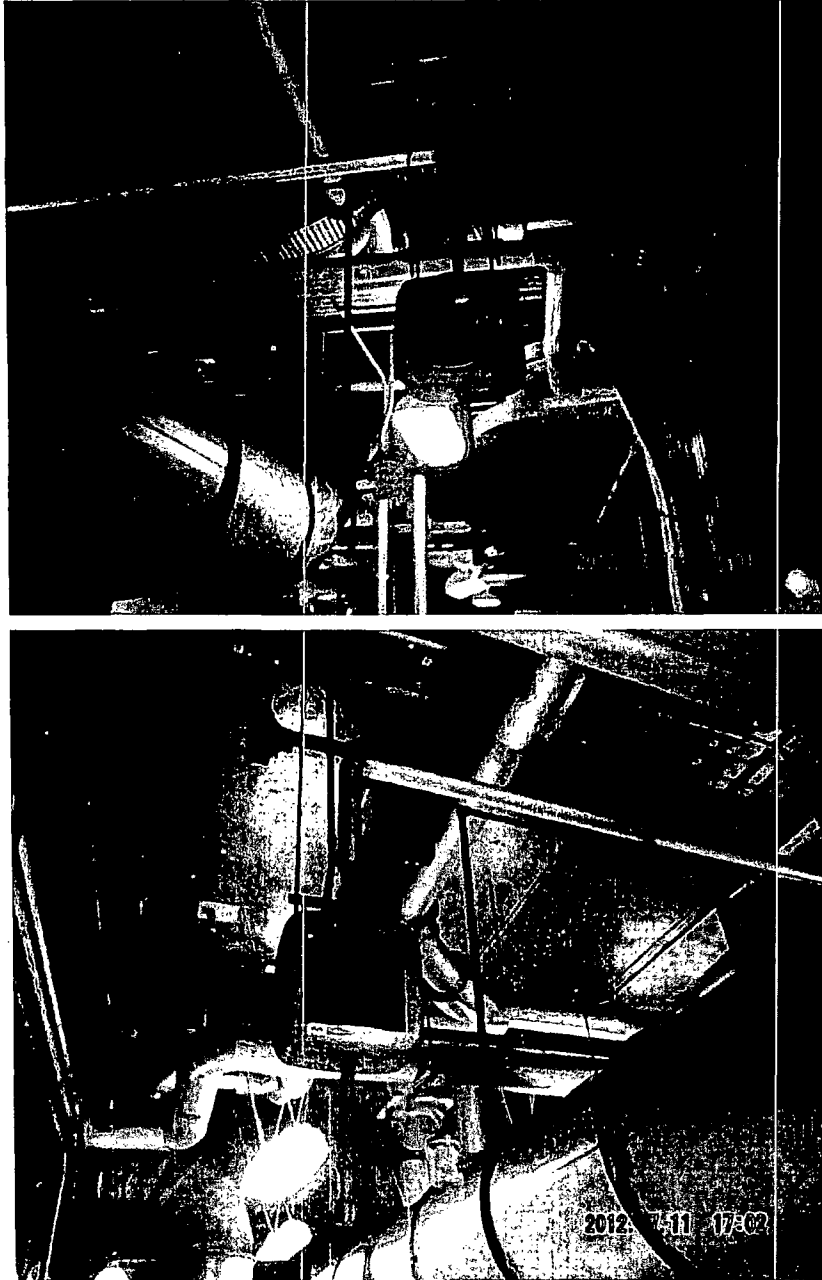


Date: 8/3/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-029

Comments (continuation page)



Photos of VH-7H.

Area Walk-By Checklist (AWC)

AWC # KW-WB-030Status Y N U Location: Bldg. AUX Floor El. 606 Room, Area Steam Generator Blowdown Tank Area**Instructions for Completing Checklist**

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-030

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

Section of tubing approximately 3 ft. long is hanging from pipe hanger SGB-1-1107. No adverse affect is expected.

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

Note 1

Comments (Additional pages may be added as necessary)

Note 1 – Block wall in area was addressed in SEWS package KW-REPORT-SEW-MCC-620 and was found to be acceptable. It will therefore not interact with equipment in the area.

Evaluated by: Glenn Gardner

Glenn Gardner

Date: 7/13/12

Evaluated by: Ronald R. Little

Ronald R. Little

Date: 7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-030

Comments (continuation page)

None.

Area Walk-By Checklist (AWC)

AWC # KW-WB-031

Status Y N U

Location: Bldg. AUX Floor El. 586 Room, Area East of Sludge Interceptor Filters

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

Cable Tray 1AX7S5 has several bent hold down straps. The tray is continuous and well supported and is not seismically challenged.

CR 481429 is submitted.

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

Lighting is secured with eye hooks which resist displacement of chains.

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-031

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A


7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Field Walkdown 7/11/12

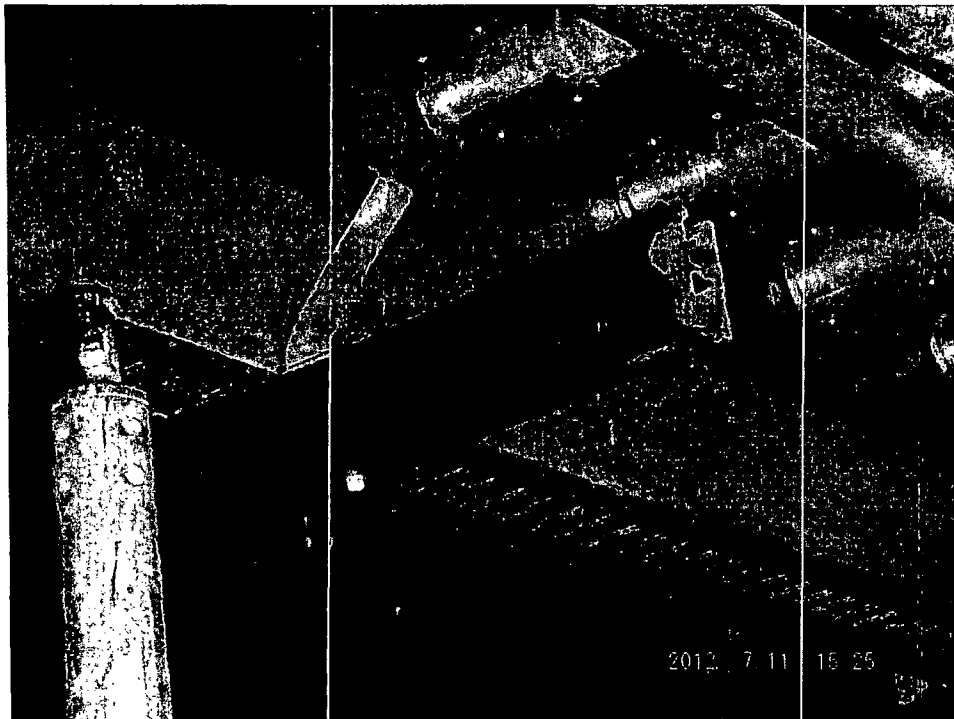
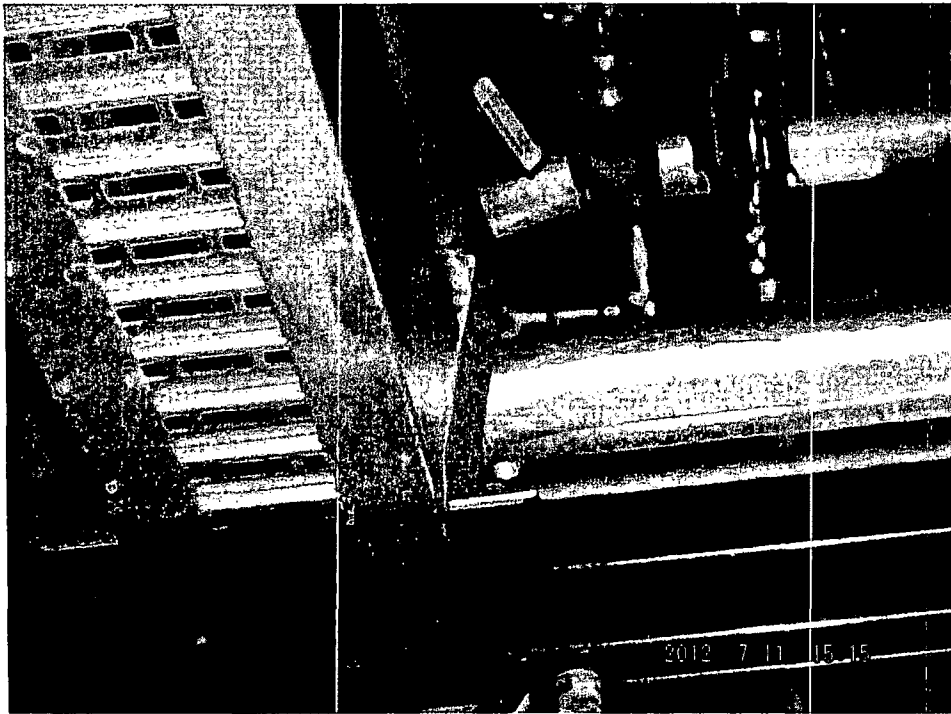
Evaluated by: Tim Wattleworth  Date: 7-23-12

Evaluated by: Daniel J. Vasquez  Date: 8/8/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-031

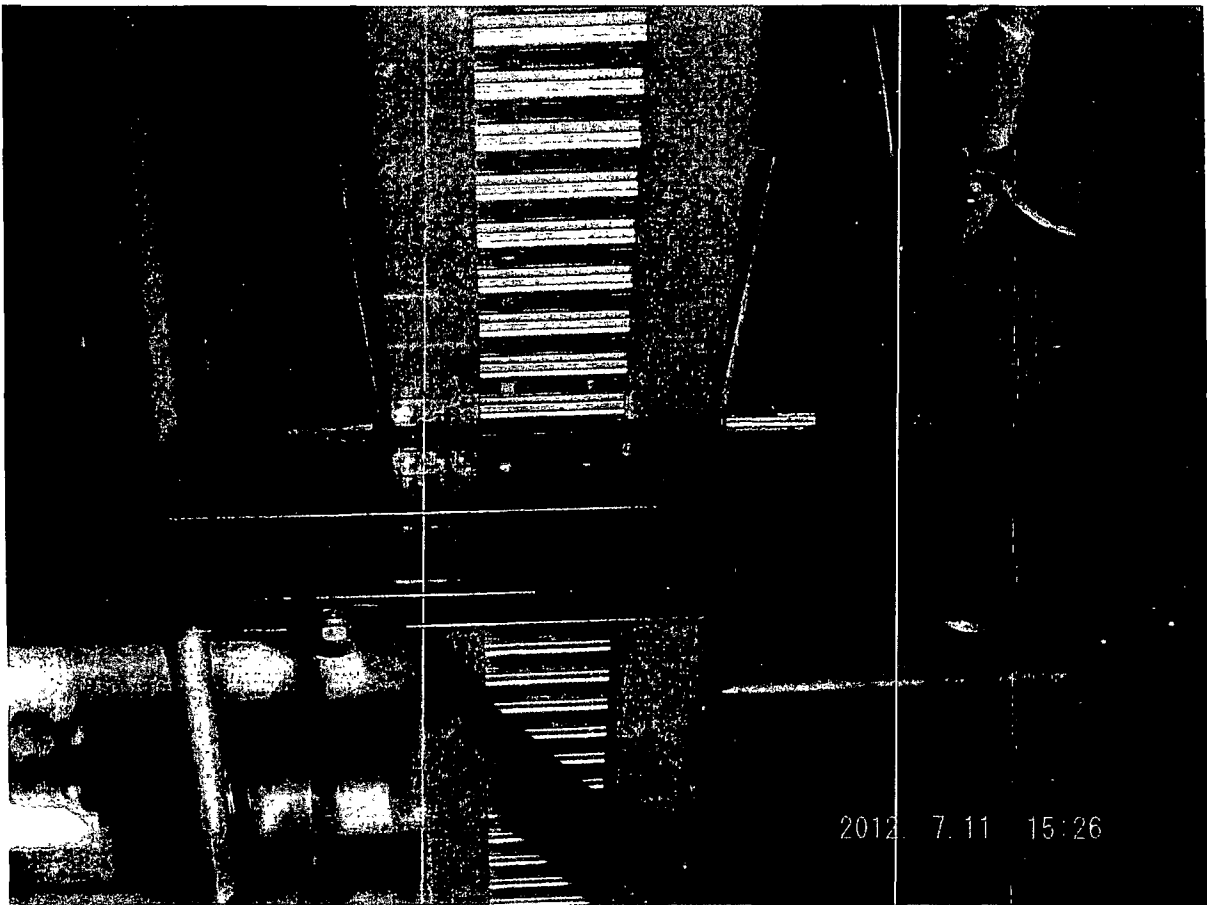
Comments (continuation page)



Area Walk-By Checklist (AWC)

AWC # KW-WB-031

Comments (continuation page)



Bent hold down strap supports on cable tray IAX755.

Area Walk-By Checklist (AWC)

AWC # KW-WB-032

Status Y N U

Location: Bldg. AUX Floor El. 586 Room, Area North of Door 264

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

Area Walk-By Checklist (AWC)

AWC # KW-WB-032

6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

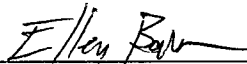
Noted good seismic housekeeping. HP cart had chocks on wheels and scaffold was well-braced. Lift truck in approved storage area.

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

Comments (Additional pages may be added as necessary)

N/A

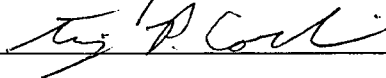
Evaluated by: Ellery Baker



Date:

7/10/12

Evaluated by: Tim Corbin



Date:

7/13/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-032 _____

Comments (continuation page)

Field Walkby 7/10/12

Area Walk-By Checklist (AWC)

AWC # KW-WB-033

Status Y N U

Location: Bldg. AUX Floor El. 606 Room, Area Demineralizer Room (FPC-204 Area)

Instructions for Completing Checklist

This checklist shall be used to document the results of the Area Walk-By near one or more SWEL items. The space below each of the following questions may be used to record the results of judgments and findings. Additional space is provided at the end of this checklist for documenting other comments.

1. Does anchorage of equipment in the area appear to be free of potentially adverse seismic conditions (if visible without necessarily opening cabinets)? Y N U N/A
Vertical crack in concrete at one 1/4" anchor bolt supporting unistrut support for 3/8" tube. Support has 2 anchors and load is very small; acceptable as is. Tube feeds FPC-51-31.

2. Does anchorage of equipment in the area appear to be free of significant degraded conditions? Y N U N/A

3. Based on a visual inspection from the floor, do the cable/conduit raceways and HVAC ducting appear to be free of potentially adverse seismic conditions (e.g., condition of supports is adequate and fill conditions of cable trays appear to be inside acceptable limits)? Y N U N/A

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

Area Walk-By Checklist (AWC)

AWC # KW-WB-033

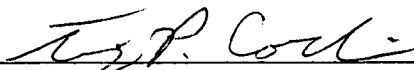
5. Does it appear that the area is free of potentially adverse seismic interactions that could cause flooding or spray in the area? Y N U N/A

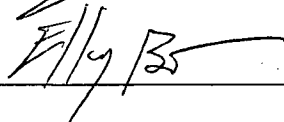
6. Does it appear that the area is free of potentially adverse seismic interactions that could cause a fire in the area? Y N U N/A

7. Does it appear that the area is free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding)? Y N U N/A

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

Comments (Additional pages may be added as necessary)

Evaluated by: Tim Corbin  Date: 7/13/12

Evaluated by: Ellery Baker  Date: 7/11/12

AWC # KW-WB-033

Comments (Additional pages may be added as necessary)

Field Walk-By 7/11/12

