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SECURITY-SENSITIVE INFORMATION - WITHHOLD UNDER 10 CFR 2.390(d)(1)
UPON REMOVAL OF ATTACHMENT 5 and 7 of ENCLOSURE 1, THIS LETTER IS UNCONTROLLED

June 20, 2013 10 CFR 50.54(f)

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: Duke Energy Carolinas, LLC (Duke Energy)

McGuire Nuclear Station (MNS), Unit 1
Docket Nos. 50-369
Renewed License Nos. NPF-9

Response to NRC Request for Information Pursuant to Title 10 Code of Federal Regulations 50.54(f) Regarding Seismic Aspects of Recommendation 2.3 of the Near Term Task Force Review of Insights from the Fukushima Dai-Ichi Accident.

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 Insights from the Fukushima Dai-Ichi Accident,* dated March 12, 2012, Accession No. ML12053A340
2. EPRI Report 1025286, *Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic,* dated June 20, 2012
3. NRC Letter, *Endorsement of Electric Power Research Institute (EPRI) Draft Report 1025286, "Seismic Walkdown Guidance",* dated May 31, 2012, Accession No. ML12145A529
4. Duke Energy's 180-Day Response to March 12, 2012, *Request for Information Regarding Seismic Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights for the Fukushima Dai-Ichi Accident,* dated July 9, 2012, Accession No. ML12194A028
5. Duke Energy's November 26, 2012 Seismic 2.3 response to Information Requested by 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 Insights from the Fukushima Dai-Ichi Accident,* dated March 12, 2012, Accession No. ML12361A006

A001
NRL

On March 12, 2012, the Nuclear Regulatory Commission (NRC) issued Reference 1 to Duke Energy. On November 26, 2012, Duke Energy responded to the request and submitted the Unit 1 and Unit 2 Seismic Walkdown Reports for the accessible areas of the plant. In the response, Duke Energy also committed to provide an updated report for those inaccessible areas of Unit 1 by September 1, 2013. There were no inaccessible areas for Unit 2. A copy of the Unit 1 report is attached which documents the inspection results in Enclosure 1. Attachments 1 through 6 of the report are unchanged, but are included for completeness. Attachments 7 and 8 of the report are new and reflect the inaccessible area inspection results for Unit 1.

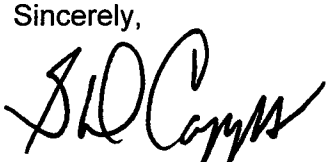
Attachment 5 and 7 of the report contain information that Duke Energy is requesting the NRC withhold from public disclosure in accordance with the requirements of 10CFR 2.390(d)(1). In accordance with NRC Regulatory Issue Summary 2005-26, an affidavit is not required for the security-sensitive information withheld under 10 CFR 2.390(d)(1).

This letter contains no new regulatory commitments.

If you have any questions or require additional information, please contact George Murphy at (980) 875-5715.

I declare under the penalty of perjury that the foregoing is true and correct. Executed on June 20, 2013.

Sincerely,



Steven D. Capps

Enclosure

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RGC Date File, (MG01RC)
MNS Master File (MG01DM, File MC 801.01)
ELL (EC05P)

ENCLOSURE 1:

McGuire Nuclear Station Unit 1 Seismic Walkdown Report Revision 1

Revision Log:

Rev. 0	Initial NRC submittal dated November 26, 2012
Rev. 1	Supplemental NRC submittal to address "initially" inaccessible components. Revised pages 1-15, Added ATTACHMENTS 7 & 8.

Executive Summary

The results of the McGuire Unit 1 Fukushima Dai-ichi Near-Term Task Force (NTTF) Recommendation 2.3 Seismic Walkdowns are provided here-in. The walkdowns were performed in accordance with Electric Power Research Institute (EPRI) Report 1025286, Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force Recommendation 2.3: Seismic (issued June 2012). The performance of the seismic walkdowns is required in response to the Nuclear Regulatory Commission's (NRC) 10CFR50.54(f) letter regarding NTTF Recommendation 2.3: Seismic. The EPRI guidance outlined requirements for personnel qualifications, selection of walkdown components, the conduct of the walkdowns, evaluation of potentially adverse conditions against the plant seismic licensing basis, and reporting requirements. The guidance further provided check lists to document the performance of the seismic walkdowns and walk-bys.

Revision 0 of the submittal report documented the walkdown results for the accessible components as of November 2012. Revision 1 of the submittal report added the walkdown results for the previously in-accessible components.

1.0 Seismic Licensing Basis

Site Characteristics:

Major Category I structures are supported on sound rock (UFSAR Sections 3.7.1.4, 3.7.1.5, 3.7.1.6, 3.8.4, 3.8.5, 3.8.5.4.1). Where zones of irregular weathering of bedrock occurred, the weathered material was excavated and fill concrete was used under foundation structures, or piles were driven to suitable rock bearing for Category I structure (UFSAR Section 2.5.1.2).

Response Spectra:

The Safe Shutdown Earthquake (SSE) for McGuire is conservatively specified to have a peak ground acceleration of 0.15g horizontally and 0.10 g vertically. The Operating Basis Earthquake (OBE) is 8/15 of the SSE at all frequencies (UFSAR 2.5.2.6, 2.5.2.11, 3.1, and MCS-1465.00-00-0009, section 3.3).

The ground response spectra curves are enveloped for analysis and design of all Category 1 building foundations on closely joined rock and slightly weathered rock and for all building elevations where the floor slab rests on rock or fill concrete (MCS-1465.00-00-0009, section 3.3).

System, Structure, Component (SSC) Seismic Design:

All structures, systems and components required to shut down and maintain the reactor in a safe and orderly condition or prevent the uncontrolled release of excessive amounts of radioactivity have a seismic classification of Category 1 (UFSAR 3.2.1). The McGuire design complies with Regulatory Guide 1.29 for SSC seismic design requirements.

Seismic Category I SSCs are designed to maintain their functional capability in-the event of a SSE. The seismic design of Category I SSCs is outlined in UFSAR Section 3.2 and Tables 3-1, 3-2, 3-4 & 3-7. Seismic Category I SSCs are also designed to withstand the effects of the Operating Basis Earthquake without loss of capability to perform their safety functions. Applicable seismic design codes and standards include (MCS-1465.00-00-0009, Section 3.2, UFSAR section 3.2 and Tables 3-1 through 3-7):

- 10CFR50, Appendix A, General Design Criteria 2 - Design Bases for Protection Against Natural Phenomena
- Duke Class A, B, C piping per ASME Section III, 1971, except for the Nuclear Service Water piping which was designed per ANSIB31.7, Class III (Reference UFSAR Table 3-5)
- Duke Class A, B, C valves per ASME Section III, 1971 (Reference UFSAR Table 3-6)
- Duke Class F valves per ANSI B31.1.0 (1967), Class III (Reference UFSAR Table 3-6)
- Regulatory Guide 1.29, "Seismic Design Classification," Revision 3, September 1978.
- IEEE Standard 344-1971, "Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Station.
- IEEE Standard 344-1975, "Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations.

2.0 Personnel Qualifications

The personnel involved in the McGuire NTTF Recommendation 2.3 Seismic Walkdown effort satisfactorily met the qualification requirements of EPRI 1025286. The personnel responsibilities and qualifications are outlined in TABLE 2-1 below. Additional Peer Review Team experience is outlined within the Peer Review Report (ATTACHMENT 6).

TABLE 2-1
Walkdown Personnel Experience and Training

Personnel	Degree	Years of Experience	Relevant Qualifications	SWE	SWEL Development	CLB Reviews	IPEEE Vulnerability Resolution	Peer Reviews
Mark Eli, P.E. (Ares)	BS/Civil Engineering	32	SQUG (1) SWE (2)(3)	X				
Charles M. Conselman, P.E. (ARES)	BS/Civil Engineering	28	SWE (2)(3)	X				
Bryan Hanna, P.E. (ARES)	BS/Civil Engineering	12	SWE (2)(3)	X				
Kevin Rubright (ARES)	BS/Civil Engineering	30	SWE (2)(3)	X				
Harpreet Ghuman (ARES)	BS/Civil Engineering	4	SWE (2)	X				
Paul Baughman, P.E. (Ares)	BS/Civil Engineering	>40	SQUG (1) SWE (2)					X(3)
George Bushnell, P.E. (SHAW)	BS/Mechanical Engineering	>40	SQUG (1) SWE (2)					X
George Hermann (SHAW)	BS/Mechanical Engineering Technology	17	SWE (2)	X				
Thomas Tonden, P.E. (SHAW)	MS Energy Engineering	>35	SWE (2)	X				
Karen Kuhn (SHAW)	BS/Nuclear Engineering	11	SWE (2)	X				
Robert L. Keiser, P.E. (Duke)	BS/Civil Engineering MS/Civil Engineering	>20	SQUG (1) SWE (2)					X
Breece C. Nesbitt, P.E. (Duke)	BS/Civil Engineering	>40	SWE (2)	X				
Mike F. Langel, P.E. (Duke)	BS/Civil Engineering ME/Civil Engineering	>35	SWE (2)	X		X		
Charles N. Cunningham, (Duke)	BS/Civil Engineering MS/Civil Engineering	4	SWE (2)	X		X		
Harry E. Vanpelt, P.E. (Duke)	BS/Nuclear Engineering, MS/Mechanical Engineering	36			X		X	
Phil A. Thompson (Duke)	N/A	37	SRO (4) (25 yrs)		X			
Bryan D. Meyer (Duke)	BS/Mechanical Engineering	>28	SWE (2)	X	X	X	X	
Drew Lyerly (Duke)	BS/Civil Engineering	6				X		

NOTES:
1) SQUG Seismic Capability Engineers (SCEs) have successfully completed SQUG training.
2) Seismic Walkdown Engineers (SWEs) have successfully completed EPRI 1025286 2 day walkdown training course.
3) Senior Team Member.
4) Prior Senior Reactor Operator (SRO).

3.0 Selection of Equipment for the SWEL-1 and SWEL-2 Lists

The McGuire Unit 1 SWEL-1 and SWEL-2 equipment selection was performed in accordance with the EPRI guidance outlined in EPRI Technical Report #1025286 (Reference MCC-1612.00-00-0001, Rev. 0).

The EPRI SWEL-1 Screening Criteria #1 through #3 are as follows:

1) Seismic Category I licensing bases,
2) Exclude structures, penetrations, and piping systems
3) Equipment must perform safety function (reactor reactivity control, reactor coolant pressure control, reactor coolant inventory control, decay heat removal, containment integrity). The EPRI screening criteria further allows major NSSS equipment inside containment to be excluded.

The original McGuire IPEEE Seismic Walkdown list (MCC-1535.00-00-0004, Rev. 0, ATTACHMENT 24) was used as an initial "Base-1 List" of potential SWEL-1 walkdown components. This list includes shared, Unit 1 and Unit 2 components; however, only the shared and Unit 1 components are considered part of the Unit 1 SWEL-1 Base-1 list. Additionally, the IPEEE list included some non-safety/non-seismic equipment, which were not considered to be part of the Unit 1 SWEL-1 Base-1 list. The prior IPEEE list effectively represents the output of EPRI guidance equipment Screening criteria's #1, #2 and #3. The SWEL-1 "Base-1 List" is provided in ATTACHMENT 1.

EPRI Screening criteria #4 was then used to select equipment from this "Base List." EPRI screening criteria #4 requires a representative cross-section of the following sample selection attributes:

- include a variety of systems,
- Include variety of types of equipment,
- Include a variety of equipment environments,
- Include major new/replacement equipment
- Include equipment enhancements implemented in response to prior IPEEE walkdown identified discrepancies

The McGuire Unit 1 SWEL-1 equipment list (ATTACHMENT 2) comprised 99 components in ~22 different systems. Safety and PRA significant systems are well represented within the SWEL-1 equipment selection, such as Auxiliary Feedwater (CA, SA), Emergency Service Water (RN), Essential AC Power (EDG, EPC, EPE), Vital DC Power (EPQ, EPG, EPL), Solid State Protection System (IPE), Residual Heat Removal (ND), Safety-Injection (ND, NI, NV), Closed Cooling Water System (KC), control room ventilation (VC, YC), Main Steam (SM, SV), Reactor Coolant (NC), and containment spray (NS) systems. The systems and components selected for SWEL-1 support the EPRI screen #3 safety functions, which are necessary to achieve safe reactor shutdown, and/or containment isolation.

The SWEL-1 list represented equipment from each of the EPRI guidance equipment classes, with the exception of air compressors and motor-generator sets. McGuire does not have any Seismic Cat I equipment within these two equipment classes. The SWEL-1 lists included equipment located in ~44 different plant areas/rooms locations. The selected equipment locations represent a broad range of equipment environmental conditions (e.g. inside containment, partial outdoor exposure, electrical/mechanical penetration rooms, pipe-chases, control room, etc.). Modified, new, and/or replacement equipment comprised >20% of the SWEL-1 list. Similarly, the SWEL-1 list included some equipment which was enhanced in response to the prior IPEEE walkdown effort.

The SWEL-1 component selection further considered PRA risk significance relative to the external seismic event. The SWEL-1 component list included a broad sampling of components, which were identified to have a significant contribution to CDF for the external seismic event.

The McGuire Unit 1 SWEL-2 spent fuel pool equipment list was developed in accordance with the EPRI guidance. Seismic Category I structures, piping, and containment penetrations were specifically excluded by the EPRI guidance. The four screening criteria specified were as follows:

1) Seismic Category I licensing bases,
2) Spent Fuel Pool (SFP) equipment appropriate for an equipment walkdown process,
3) Sample considerations represent broad population of equipment with considered sample selection attributes such as:
    a. represent a variety of systems,
    b. major new/replacement equipment,
    c. variety of equipment types,
    d. variety of environments

OR

4) Equipment which could result in rapid drain down of the SFP (includes both seismic and non-seismic components and similar factors outlined in 3) above, as practical).

The SWEL-2 equipment "Base-2 List" (ATTACHMENT 3) was established based on screens #1 and #2 above. Equipment was selected from the Base-2 List based on screening criteria #3 above, and primarily included major equipment such as the spent fuel cooling system pumps, pump motor air handling units, and heat-exchangers.

The SWEL-2 list was further supplemented based on screening criteria #4 above, to include equipment which could result in SFP rapid drain-down, as defined by the EPRI guidance. The SFP mechanical connections were further reviewed to ascertain whether they could present the potential for rapid drain-down of the SFP in-the-event of postulated seismic event. Rapid drain-down is considered to be an uncontrolled and unlimited drain-down due to a postulated leakage from a mechanical piping/component interface. The EPRI guidance provided a definition for SFP uncontrolled drain-down, which was seismic induced leakage which could drain SFP to within 10' of the top of the fuel within 72 hours. Unlike the prior screening criteria, screen #4 does not exclude non-seismic equipment.

The McGuire Unit 1 & 2 SFP relies on passive design features to limit the amount of inventory which could be inadvertently drained. In general, the mechanical piping interfaces below the SFP normal water level are either equipped with siphon breakers, and/or the pipe elevation does not extend more than 2-4' below normal SFP water level. The McGuire SFP is normally aligned to the fuel transfer canal to support the Safe Shutdown Facility Standby Make-up Pump (SBMUP). The SBMUP is periodically aligned to the spent fuel pool for testing and was considered to be a potential rapid drain-down pathway, thus some of the associated components in the flow-path were included in the SWEL-2 Rapid Drain Down list (ATTACHMENT 3). The SWEL-2 Rapid Drain Down List also included some components which could pose a rapid drain down risk during refueling operations (e.g. reactor cavity seal, refueling canal drains, etc.). The final SWEL-2 list was selected based on a sampling of appropriate equipment types from the Base-2 and Rapid Drain Down Lists. The SWEL-2 list is provided in ATTACHMENT 4 and was comprised of 8 components.

4.0 Seismic Walkdowns and Area Walk-Bys

Duke Energy contracted the Shaw Group / ARES Corporation team to perform the NTTF 2.3 seismic walkdowns at McGuire Nuclear Station. The McGuire Unit 1 walkdown summary report, the component Seismic Walkdown Checklists (SWC), and the Area Walk-By Checklists (AWC) are provided in ATTACHMENT 5. Duke Energy personnel subsequently completed the walkdown checklists for the initially inaccessible components, and these are provided in ATTACHMENT 7.

The Seismic Walkdowns and Area Walk-bys were conducted in accordance with the EPRI guidance outlined in EPRI Technical Report #1025286 (Reference MCC-1612.00-00-0001, Rev. 0). The EPRI guidance Seismic Walkdown Check-lists (SWC)s were completed for each item on the SWEL. The EPRI guidance Area Walk-by Check-lists (AWC)s were also completed for areas/rooms associated with SWEL equipment.

The component seismic walkdown inspections were primarily focused on the identification of potentially degraded component anchorage conditions, and potentially adverse seismic interactions with surrounding SSCs. For the non-line mounted components, the visual inspections assessed whether the anchorage was degraded (e.g. bent, loose, broken, missing, corroded, localized concrete cracks). Additionally for at least 50% of the non-line mounted components, the as-built field anchorage was verified to be consistent with design documentation.

The Area Walk-by inspections were performed for SWEL equipment areas. The area walk-bys assessed whether other surrounding equipment in the area/room (up to ~35' radius around SWEL component or the room containing the SWEL component) had potentially degraded anchorage, or whether the potential for adverse seismic interactions were present.

If the Seismic Walkdown Engineers (SWEs) determined a potentially adverse seismic condition existed, then the issue was entered into the corrective action program (CAP) to allow further engineering evaluation. The CAP engineering evaluation determined whether the potentially adverse seismic condition was degraded, unanalyzed, or non-conforming to the design and licensing bases

107 Seismic Walkdown Checklists (SWC) were completed for the components listed on the SWEL. This total was comprised of 99 SWEL-1 components, and 8 SWEL-2 components. The originally accessible component walkdowns were performed by Shaw Group / ARES personnel. Duke Energy personnel completed the remaining walkdowns for the "inaccessible" components which required a unit outage to complete (Refer to section 4.0). For the non-line mounted SWEL equipment, an anchorage as-built verification was completed for 57% of the equipment with anchorage. Additionally, a total of 53 (48 by Shaw/ARES personnel, and balance by Duke personnel) Area Walk-by Checklists (AWC) were completed for the SWEL-1 scope, and 2 AWC were completed for the SWEL-2 scope.

The seismic walkdowns and walk-bys identified 32 "Potentially Adverse Seismic Conditions" which are outlined in TABLE 4-1. Refer to the respective TABLE NOTE(s) for the "CAP Resolution" designation. The potentially adverse seismic conditions were entered into the Corrective Action Program (CAP). Engineering evaluation was performed as warranted for the potentially adverse seismic condition, and in all cases the engineering evaluation concluded that the condition was in conformance with the current licensing bases. In some cases work requests or CAP ACTIONS were initiated as required to resolve minor issues (e.g. loose fastener, add grout, etc.), and/or to enhance field equipment clearances.

TABLE 4-1
Potentially Adverse Seismic Conditions

Walkdown Item	Potentially Adverse Condition	CAP Disposition (See notes)
1) 1EPQ-BC-EDGA: 1A EDG Battery Charger	Elevated shim height not depicted by drawing.	3
2) 1-EPE-TF-ELXB: Transformer 4.16 KV/600 VAC	The concrete slab adjacent to two vertical supports of the equipment contains cracks.	1
3) 1ETB: 4.16 kV Essential Power Switchgear	i) Cracks in the concrete floor in the vicinity of bolts for units: 1 ETB-17, 1 ETB-16, 1ETB-13, 1 ETB-11, 1 ETB-6, and 1 ETB-9. HN 3440 anchors (observed) are consistent with MC-1906-04, Rev. 8 and calculations MCC-1535.00-00.0004. However, ~"diameter Phillips Red Anchors are concealed (inaccessible) by the base C-channel by design. ii) Spalling at corner of grout pad at end of unit (1ETB-1). Also grout pad height is in excess of 2" resulting in less than design overlap of angle and channel at this location (1ETB-1, MC-1906-04, Rev. 8).	i) 1 ii) 1
4) 1-EPE-TF-ELXA: 4.16 kV Essential Power Transformer	Cracks in concrete floor near 2 of 4 anchor groups. Cracks were within 10 x (anchor diameter) of anchor bolts.	1
5) 1EMXA: 600 VAC Essential MCC	Concrete cracks: Cracks in concrete floor between R6D and R5D. Floor was coated with epoxy; therefore unable to measure crack width. Anchor bolt location was unable to be determined (see above); therefore, unable to determine distance between anchor bolt and crack in concrete floor.	1
6) 1VGTK0062: 1A1 EDG Starting Air Tank	Interaction effect: Relief valve (1VG-33) on top of tank is within 1/2" of cable tray.	1
7) 1VGTK0063: 1A2 EDG Starting Air Tank	Interaction effect: Relief valve 1VG-34 is approximately 1" from cable tray.	1
8) 1KCTK0009: U1 KC Surge Tank	Interaction effect: Bottom of ladders are welded to access platform (independent of tank) and top of ladder is lashed to tank nozzles. Potential for "event caused" flooding.	1
9) 1ND-4B: RHR FWST Suction Isolation	Interactions effect: Cable tray tie rod support hanger is nearly torn off of the tray which reduces support of cantilevered portion of tray carrying actuator cables.	2
10) 1CA-56A: MDCAP to 1B SG	Interaction effect: Cable tray feeding 1CAPNAFPB panel has cables resting against valve operator air manifold	1

CAP DISPOSITION NOTE(s):
1) Field configuration meets Current Licensing Bases (CLB) requirements, and no field work required.
2) Field configuration meets CLB requirements; however, work request/work order/ACTION initiated to resolve minor issue, verify unknown condition, or enhance/correct field configuration.
3) Field configuration meets CLB requirements; however, design drawing updated to reflect field configuration.
4) CLB not met, and required field modification.

TABLE 4-1
Potentially Adverse Seismic Conditions

Walkdown Item	Potentially Adverse Condition	CAP Disposition (See notes)
11) Room 600, MDCAP Room: AWC for 1CA-56A	Interaction effect: Approximately 3/4" air supply pipe to valve has 3+ elbows and approx. 15' of pipe with no support.	1
12) Room 600, U1 MDCA Pump Room: Area Walk-By for 1CAPNAFPA; 1CAPU0001; and 1WL322B.	Interaction effect: i) Valve 1 CA-36AB air connection to (black) air regulator does not have adequate clearance from vertical support member (see photo). ii) Discharge line from floor drain sump tank impinges on valve 1 WL-359 and rests on another line approximately 5 ft. downstream. This line also passes over Unit 1 Aux. shutdown panel. iii) 1-V520 handwheel has inadequate clearance to U1 line. Not significant. iv) Approx. 3" pipe directly over enclosure has threaded connections and is hung with threaded rods. Pipe is touching stanchion (but not attached) directly above cabinet. Pipe may deflect and hit vertical Unistrut.	i) 2 ii) 1 iii) 1 iv) 1
13) 1EVDA: Vital Panel 125VDC Breaker	Interaction effect: Could not verify whether 1 EVDA and 1 EVKA are bolted together. Based on MCM-1314.01-34, 1EVDA appears to be a discrete enclosure from 1 EVKA. Unclear whether interactions between enclosures was considered in IPEEE review.	2
14) 701- Vital Battery Area A: Area Walk-By for 0-EPL-BC-EVCA: 1 EVDA, etc.	Interaction effect: Abandoned eyewash supply pipe is buckled and kinked. It is supported by rod hangers. Pipe is located over various enclosures and equipment throughout vital battery room.	1
15) 701- Vital Battery Area B AWC for 0-EPL-BC-EVCB;1 EVDB; EVDB; etc.	Interaction effect: Abandoned eyewash supply pipe is buckled and kinked. It is supported by rod hangers. Pipe is located over various enclosures and equipment throughout vital battery room.	1
16) 701- Vital Battery Area C AWC for 0-EPL-BC-EVCC; EVDC, etc.	Interaction effect: Abandoned eyewash supply pipe is buckled and kinked. It is supported by rod hangers. Pipe is located over various enclosures and equipment throughout vital battery room.	1
17) 1EVDD: 125VDC Vital Battery Breaker Panel	Interaction effect: Shims were located between block wall and cabinet.	1
18) 701- Vital Battery Area D AWC for 1EVDD; 1EPG-BI-EVID, etc.	Interaction effect: Abandoned eyewash supply pipe is buckled and kinked. It is supported by rod hangers. Pipe is located over various enclosures and equipment throughout vital battery room.	1
19) Room 705- Electrical Penetration Room: AWC for 1ETB & 1-EPE-TF-ELXB	Interaction effect: Rigid ducts span between 1 EFE-LX-ELXB and similar units in the room.	1

CAP DISPOSITION NOTE(s):
1) Field configuration meets Current Licensing Bases (CLB) requirements, and no field work required.
2) Field configuration meets CLB requirements; however, work request/work order/ACTION initiated to resolve minor issue, verify unknown condition, or enhance/correct field configuration.
3) Field configuration meets CLB requirements; however, design drawing updated to reflect field configuration.
4) CLB not met, and required field modification.

TABLE 4-1
Potentially Adverse Seismic Conditions

Walkdown Item	Potentially Adverse Condition	CAP Disposition (See notes)
20) Room 730: AWC for 1NI-178B.	Interaction effect: 1 KC-325 valve actuator within 1/4" of 10" diameter pipe that is suspended in a hanger that is not restrained vertically.	1
21) Room 730: VCT Hallway: AWC for 1NV-141A.	Interaction effect: Directly below 1NV-146 -3 feet, there is a loose piece of pipe and a small tool that could fall during a seismic event.	1
22) Room 730: VCT Hallway: AWC for 1NV-141A.	Interaction effect: i) Valve actuator, 1NVG-137A, conduit connections are resting on a fixed support. ii) 6" pipe at ceiling has slipped off center of support held by 2 spring cans, one spring can is fully-compressed, other appears loose. Valve 1FW23 is in this line.	i) 2 ii) 1
23) 1KCPU0002: 1A2 KC Pump	Interaction effect: Fire sprinkler line over pump in contact with wire-way to pump motor.	1
24) Room 601, U2 MDCA Pump Room: AWC for 0RN7A	Interaction effect: Sump drain pipe is attached to the ceiling with threaded rod and could displace into pressurized tubing for auxiliary feedwater pump 2CAMR0002/2BETB6	1
25) 1NSHX0004: 1B Containment Spray Heat Exchanger	Notched column flanges: Anchors are complete; however, multiple wide flange columns have notches in the flange near base plate.	1
26) 1NSHX0003: 1A Containment Spray Heat Exchanger	Notched column flanges: Anchors are complete; however, multiple wide flange columns have notches in the flange near base plate.	1
27) Unit 1, Room 926: AWC for 1VC-1A	House-keeping: Trash can was not secured / constrained.	1
28) 1NVPU0046: Standby Make-up Pump	Interaction effect: Valve 1NV-937 has contact with pump discharge pipe, which could adversely affect the function of the pump in a seismic event.	1
29) 1KFPU0001: 1A KF Pump	Interaction effect: end of valve stem (1KF-2) on pump suction valve is within ~1/8" of a structural (HSS) support.	1
30) Room 816: AWC for 1KFPU0001&2; 1KFHX0003&4; 1VAAH0031	Interaction effect: One end of 4" cable tray that supports a flexible conduit to 1 MRNSV2400 (Fuel Pool Cool Pump Air Cooler B) solenoid was supported/"anchored" by something resembling duct tape (only).	2
31) 1B Cold Leg Accumulator Room: AWC for 1NI-431B	Instrument impulse tubing track L-bracket support not tightly secured for 1NIIV5060.	2
32) 1ETB 4kV Essential Switchgear SWC	Fluorescent light fixture adjacent to front of 1EPC-BK-ETB14 had a single unsecured rod-hanger.	2

CAP DISPOSITION NOTE(s):

1) Field configuration meets Current Licensing Bases (CLB) requirements, and no field work required.
2) Field configuration meets CLB requirements; however, work request/work order/ACTION initiated to resolve minor issue, verify unknown condition, or enhance/correct field configuration.
3) Field configuration meets CLB requirements; however, design drawing updated to reflect field configuration.
4) CLB not met, and required field modification.

Additionally, there were 11 SWCs which documented that portions of internal electrical cabinet anchorage was concealed in-part or entirely, and the SWCs were designated to be "unknown." The SWC for 1ETB (4 kV Essential Switchgear) was initially specified to be "unknown" due to personnel safety concerns, thus this component internal anchorage inspection was deferred (refer to the inaccessible component section below). The remaining 10 SWCs which were designated "unknown" are as follows:

- 6 SWCs were associated with 125 VDC vital battery distribution centers (EVDA, EVDB) and 600 VAC Essential MCCs (1EMXA, 1EMXA-1, 1EMXB, 1EMXB-1) in which portions of anchors were not accessible because they were covered by structural members or the embedded "C"-channel. Some physical equipment demolition would be required to visually access all the anchorage.

- 3 SWCs (EMXE 600 VAC MCC, 1A EDG Battery, 1A CA pump control panel) only a portion of the internal anchorage was visible, due to concealment by wires, wire-ways, or other structure. A significant portion of the cabinet anchorage was visibly inspected (16 of 18 bolts for EMXE, 10 of 12 fasteners for 1A EDG battery, 8 of 12 anchors for the 1A CA Pump Control Panel). The anchors which could not be visually inspected are judged to be in acceptable condition based on the satisfactory condition of the visually inspected anchorage.

- The SWC for the Turbine Driven Auxiliary Feedwater Pump (TDCAP) control panel the internal anchorage was concealed by a sheet metal shroud. Therefore, it was not included in the 50% anchorage check. This component inspection was limited to the visual of internal cabinet components to ensure they were secure, exterior perimeter inspection of the cabinet concrete, and for local seismic interaction concerns.

This equipment was retained on the SWEL to satisfy various sample selection attributes; however, some physical equipment demolition would be required to visually access all the anchorage. This equipment is located in a dry, mild environment and not exposed to any physical degradation mechanisms. The SWCs and associated inspections are deemed to satisfactorily meet the intent of the published EPRI walkdown guidance. Based on the aggregate results of the seismic walkdowns, there were no significant anchorage deficiencies, nor licensing bases issues identified. Based on the foregoing discussion, no further equipment walkdowns are planned for these components.

INACCESSIBLE COMPONENTS:

The Unit 1 components initially deemed to be inaccessible, which required a unit shutdown in order to complete the walk-downs are listed in TABLE 4-2. These outstanding SWC and associated AWC were completed during the McGuire Unit 1 spring 2013 refueling outage. A SWC for 1ETB was initially partially completed in the fall of 2012, and 1ETB was re-inspected to verify internal anchorage condition and configuration. The AWC was previously completed for 1ETB and was not re-performed. Table 4-1 was updated based on the results of these recent walk-downs.

TABLE 4-2
Walkdown Inspections Deferred to Next Refueling Outage

Unit	Location	Equipment ID	Name	Scheduled Completion
1	Reactor Bldg.	1NC-32B	Reactor Coolant System Pressurizer PORV	Completed during 2013 Spring Refueling outage
1	Reactor Bldg.	1NC-34A	Reactor Coolant System Pressurizer PORV	
1	Reactor Bldg.	1NI-430A	N2 Assured Supply to 1NC-34A	
1	Reactor Bldg.	1NI-431B	N2 Assured Supply to 1NC-32B	
1	Reactor Bldg.	1ND-1B	RHR Pump Hotleg Suction Isolation	
1	Reactor Bldg.	1ND-2AC	RHR Pump Hotleg Suction Isolation	
1	Auxiliary Bldg.	1ETB	4Kv Essential Switchgear	

5.0 Licensing Basis Evaluations

As outlined in section 4.0 TABLE 4-1, a total of 32 Potentially Adverse Seismic Conditions (PASC) were identified by the Seismic Walkdowns and the Area walkby's. The potentially adverse seismic conditions were entered into the Corrective Action Program (CAP). Engineering evaluation was performed as warranted for the potentially adverse seismic condition, and in all cases the engineering evaluation concluded that the condition was in conformance with the current licensing bases. In some cases work requests or CAP ACTIONS were initiated to resolve minor issues (e.g. loose fastener, add grout, etc.), update design documents, and/or to enhance field equipment clearances.

The potential adverse conditions and their individual Problem Investigation process (PIP) tracking numbers are listed in the Unit 1 NTTF 2.3 Seismic Walkdown Reports (ATTACHMENTs 5 and 7).

6.0 IPEEE Vulnerabilities

The McGuire IPEEE NRC submittal of 6/1/94 (Reference 8) concluded that there were no vulnerabilities from external events. Thus, there were no identified plant changes which would significantly reduce the risk from external events.

Table 3-3 of the IPEEE NRC Submittal identified several enhancements to resolve minor field walkdown issues (References 6, 8, ATTACHMENT 3). These enhancements are listed in TABLE 6-1.

TABLE 6-1
IPEEE Enhancements

Equipment Deficiency Identified	Resolution	Date Resolved
Unit 1 EDG battery racks were missing spacers.	WO 94050272 & 94050263 installed missing spacers. (NAS WOs# 00326062 & 00326059)	• 1EDGA Complete 12/29/94 • 1EDGA Complete 11/21/94
Unit 2 Upper Surge Tank anchor bolts missing.	Replaced bolts per WR 93034428.	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.
MCCs were noted to be in contact with each other at a corner (Re. Attach. 1 of Reference 7.3): • 1EMXB and 1EMXB-1 • 2EMXB and 2EMXB-1	MGMM-3870 mechanically fastened the MCCs together to prevent interaction.	• WO # 00316559 complete prior to 10/5/95 • WO # 00316580 complete prior to 10/4/95
Auxiliary Feedwater CST anchor bolts and nuts exhibited corrosion.	WO 94030900 cleaned and re-coated fasteners.	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.
Various movable equipment where noted to be unsecured and could pose a seismic interaction concern.	Guidelines were incorporated within NSD-104 for station house-keeping.	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.
Turbine Driven Auxiliary Feedwater Pump control cabinet in contact with 'CA' piping.	MM-6664/WO 94095550 trimmed panel corner to eliminate contact and resealed cabinet.	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.
KC Heat exchanger saddle bases and concrete curbs require grouting.	MM-4118 eliminated pipe interference and add grout. W/O"s 94064720, 94053337, 94065089, and 94065092	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.
Grating in contact with steam vent valves in exterior doghouses.	Grating trimmed per WR 93034096 & 93034099.	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.
Arc barrier connections were not secure within main control boards.	WO 94010441 & 94010379 secured the connections.	PIP M94-1003 (Reference 7.4) documented complete prior to 1/25/96.

7.0 Peer Review:

Duke Energy contracted with the Shaw Group (Shaw) / ARES Corporation (ARES) Team to perform the NTTF 2.3 peer review for the McGuire Nuclear Station (MNS). The Peer Review Report for the initially accessible components is contained in ATTACHMENT 6. A supplemental Peer Review Report (ATTACHMENT 8) was performed for the initially inaccessible components, which were completed during McGuire Unit 1 spring 2013 refueling outage.

The Peer Review Team consisted of three individuals (refer to Table 2-2), all of whom have seismic engineering experience as it applies to nuclear power plants. These individuals participated in the peer review of each of the activities.

The Shaw/ARES methodology conforms to the guidance in Section 6 of EPRI 1025286. The peer review covered the following:

- The selection of the SSCs included on the Seismic Walkdown Equipment List (SWEL).
- A sample of the checklists prepared for the seismic walkdowns and area walk-bys.
- The licensing basis evaluations.
- The decisions for entering the potentially adverse conditions in the Corrective Action Program (CAP) process.
- The submittal report.

The peer review process for the SWEL development and the seismic walkdowns consisted of the following:

- Reviewing the activity guidance in EPRI 1025286, the NEI Q&A bulletins, the NEI first-mover reports, and NRC Temporary Instruction 2515/188.
- Conducting an in-process review at the plant site, including interviews with the personnel performing the activity and reviewing in-process documentation.
- Performing an in-plant surveillance (for the walkdown activity) of a seismic walkdown and an area walk-by.
- Providing in-process observations and comments to the personnel performing the activities.
- Conducting a final review of a sample of the completed documentation.

The peer review process for the licensing basis evaluations and the decisions for entering potentially adverse conditions into the CAP consisted of reviewing the overall review process and a sample of the licensing basis reviews. The peer review process for the submittal report consisted of reviewing the draft submittal prepared by McGuire Design Engineering for licensing review. The peer review of the licensing basis evaluations resulted in some open issues; however, those issues were addressed by updating the licensing basis evaluations documented in the CAP.

The conclusion of the peer review is that the MNS NTTF 2.3 seismic walkdown effort has been conducted in accordance with the guidance in EPRI 1025286. Comments made during the in-process review of the SWEL development and the walkdowns have been addressed satisfactorily. In-process comments on the final walkdown reports, the licensing basis reviews, and the submittal have also been resolved.

REFERENCES:

1) MCS-1465.00-00-0009, Rev. 1, Seismic Design Bases Document
2) UFSAR Sections 3.1, 3.2.1, 3.8.4, 3.8.5, Tables 3-1 through 3-7
3) UFSAR Section 2.5.1.2, 2.5.2 Site Geology
4) UFSAR Sections 2.5.2.10, 2.5.2.11 SSE/OBE
5) UFSAR Section 3.7 Seismic Design
6) MCC-1612.00-00-0001, Rev.1
7) EPRI Report 1025286, Dated May 2012, Seismic Walkdown Guidance for Resolution of Fukushima Near-Term Task Force (NTTF) Recommendation 2.3 (ATTACHMENT 1).
8) McGuire NRC Response to GL 88-20, Individual Plant Examination of External Events (IPEEE) Submittal, dated June 1, 1994, T.C. McMeekin to NRC.
9) SHAW/ARES Summary Report, Seismic Walkdown Report for Duke Energy's McGuire Nuclear Station Unit 1 1457690101-R-M-00001-1, Rev. 1 (November 5, 2012).
10) SHAW/ARES Summary Report, Seismic Walkdown Report for Duke Energy's McGuire Nuclear Station Unit 2 1457690101-R-M-00002-1, Rev. 1 (November 5, 2\012).
11) SHAW/ARES Peer Review Summary Report, "NTTF 2.3 Seismic Peer Review Report McGuire Nuclear Station Units 1 and 2 1457690101-R-M-00003-0.
12) MCC-1535.00-00-0003, Rev. 0, Seismic Hazard Curve Sensitivity for the McGuire IPEEE.
13) MCC-1535.00-00-0004, Rev. 0, Seismic PRA/IPEEE Back-up Calculation.
14) PIP M94-1003, 'Equipment Deficiencies Identified During the 1994 IPEEE Seismic Walkdowns.
15) MCS-1108.00-00-0002, Rev. 9, "Specification for the Response Spectra and Seismic Displacements for Category I Structure
16) 7/9/12 correspondence to NRC from Ben C. Waldrep, "Response to NRC Request for Information Pursuant to 10 CFR 50.54(f) Regarding the Seismic Aspects of Recommendation 2.3 of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident"
17) MCS-1108.02-00-0001, Rev. 5, "McGuire Structural Design Specification.

ATTACHMENTS:

1) SWEL-1 Base-1 List (*see note below)
2) McGuire Unit 1 SWEL-1 (*see note below)
3) McGuire Unit 1 SWEL-2 Base-2 List and Rapid Drain Down List (*see note below)
4) McGuire Unit 1 SWEL-2 (*see note below)
5) Seismic Walkdown Summary Report and Checklists (*see note below)
6) PEER Review Summary Reports (*see note below)
7) Seismic Walkdown Checklists (SWCs) and Area Walkby Checklists (AWCs) for Initially Inaccessible Components
8) Supplemental PEER Review Summary Reports for Initially Inaccessible Components

NOTE: *Attachments 1-6 were originally transmitted in submittal dated 11/26/12, and are not included here-in.

ATTACHMENT 1

SWEL-1 Base-1 List

ATTACHMENT 2

McGuire Unit 1 SWEL-1

ATTACHMENT 3 - McGuire Unit 1 SWEL-2 Base-2 List and Rapid Drain Down List

Unit 1 SWEL-2 "Base List"

Equipment #	Description	System	Class of Equipment	Bldg	Elev.	Room #	Column-Grid	Function
1KFPU0001	1A KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52	SFP Cooling
1KFPU0002	1B KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52	SFP Cooling
1KFHX003	1A KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52	SFP Cooling
1KFHX004	1B KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52	SFP Cooling
1VAAH0030	1A KF Pump AHU	VA	10-AHU	Aux Bldg	750	816	PP-52	SFP Cooling
1VAAH0031	1B KF Pump AHU	VA	10-AHU	Aux Bldg	750	816	PP-52	SFP Cooling
1ETA-13	1A KF Pump Breaker	EPC	03-Med Voltage Metal Clad SWGR	Aux Bldg	750	803	AA-50	SFP Cooling
1ETB-13	1B KF Pump Breaker	EPC	03-Med Voltage Metal Clad SWGR	Aux Bldg	733	705	AA-50	SFP Cooling
1RN-140A	A KF Pump Ess AHU Sup Isol	RN	07-AOV	Aux Bldg	750	816	PP-52	SFP Cooling
1EMXA-F3D	1A KF Pump Motor AHU Motor	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	750	808	FF-55	SFP Cooling
1EMXB-4C	1B KF Pump Motor AHU Motor	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	750	722	FF-55	SFP Cooling
1RN-240B	1B KF Pump Ess AHU Sup Isol	RN	07-AOV	Aux Bldg	750	816	PP-52	SFP Cooling

Unit 1 SWEL-2 "Rapid Draindown List"

Equipment #	Description	System	Class of Equipment	Bldg	Elev.	Room #	Column-Grid	Function
1NV-842AC	SBMUP Suction Isolation	NV	08-MOV/SOV	Rx Bldg	725	Annulus	273°/61 R	SFP & Refueling Cavity Inventory
1NVAC0048	SBMUP Suction Pulsation Dampener (non-seismic SSC)	NV	00-Other-(pulsation dampener)	Rx Bldg	725	Annulus	320°/61 R	N/A
1NVPU0046	SBMUP (non-seismic SSC)	NV	05-Horizontal Pump	Rx Bldg	725	Annulus	320°/61 R	N/A
1NVAC0049	SBMUP Discharge Pulsation Dampener (non-seismic SSC)	NV	00-Other-(pulsation dampener)	Rx Bldg	725	Annulus	320°/61 R	N/A
1NVFL0047	SBMUP Discharge Filter (non-seismic SSC)	NV	00 - Other	Rx Bldg	725	Annulus	320°/61 R	N/A
1NV-849AC	SBMUP Discharge Isolation	NV	08-MOV/SOV	Rx Bldg	725	Annulus	273°/61 R	N/A
Reactor Cavity Seal	Refueling Reactor Cavity Seal	FW	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory
1FW-8, -10, -25, -26, -46, -47, -76, -75	Refuling Cavity Manual Drain Valves	FW	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory
Fuel Transfer Tube blind flange	Fuel Transfer Tube Blind Flange	KF	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory
Fuel Transfer Tube Weir Gate	Fuel Transfer Tube Weir Gate	KF	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory

ATTACHMENT 4

McGuire Unit 1 SWEL-2

Equipment #	Description	System	Class of Equipment	Bldg	Elev.	Room #	Column-Grid	Major New/ Replacement Equipment	Function
1NV-842AC	SBMUP Suction Isolation	NV	08-MOV/SOV	Rx Bldg	725	Annulus	273°/61 R	X - actuator replacement (EC-99992)	SFP & Refueling Cavity Inventory
1NVAC0048	SBMUP Suction Pulsation Dampener (non-seismic SSC)	NV	00-Other-(pulsation dampener)	Rx Bldg	725	Annulus	320°/61 R	X - replaced MGMM11916 (EC 37849)	N/A
1NVPU0046	SBMUP (non-seismic SSC)	NV	05-Horizontal Pump	Rx Bldg	725	Annulus	320°/61 R		N/A
1KFPU0001	1A KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52	X - replaced motor EC105550	SFP Cooling
1KFPU0002	1B KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52		SFP Cooling
1KFHX0003	1A KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52		SFP Cooling
1KFHX0004	1B KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52		SFP Cooling
1VAAH0031	1B KF Pump AHU	VA	10-AHU	Aux Bldg	750	816	QQ-52		SFP Cooling

ATTACHMENT 6

PEER Review Summary Report

ATTACHMENT 8

Supplemental PEER Review Summary Reports for

Initially Inaccessible Components

ATTACHMENT 1

SWEL-1 Base-1 List

TABLE 2 -

MECHANICAL EQUIPMENT LIST FOR MCGUIRE UNIT 1 IPEEE WALKDOWN

('B' train components are shown in parentheses. A detailed walkdown of these components is not necessary if the 'B' train configuration is similar to the 'A' train.)

CA SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 1CA20AB	6			
AOV 1CA27A (32B)	4			
AOV 1CA36AB	4			
AOV 1CA48AB	4			
AOV 1CA52AB	4			
AOV 1CA56A (44B)	4			
AOV 1CA60A (40B)	4			
AOV 1CA64AB	4			
MOV 1CA7AC	8			
MOV 1CA11A (9B)	8			
MOV 1CA15A (18B)	6			
MOV 1CA38B	4			
MOV 1CA50B	4			
MOV 1CA54AC	4			
MOV 1CA58A (46B)	4			
MOV 1CA62A (42B)	4			
MOV 1CA66AC	4			
MOV 1CA86A (116B)	8			
TURBINE DRIVEN PUMP 1 (INCLUDING CONDENSATE EDUCTOR)		X		
TURBINE DRIVEN PUMP LUBE OIL HX				
MOTOR DRIVEN PUMP 1A (1B)		X		
WZ SUMP PUMP A (B) FROM GROUNDWATER DRAINAGE SUMP A (A)				

DIESEL GENERATOR AND SUPPORTING COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
D/G 1A (1B)		X		
FUEL OIL DAY TANK 1A (1B)		X		
FUEL OIL STORAGE TANK 1A (1B)				
FUEL OIL BOOSTER PUMP 1A (1B)			X	
FUEL OIL FUEL TRANSFER FILTERS 1A1, 1A2 (1B1, 1B2)			X	
FUEL OIL TRANSFER PUMP 1A (1B)				
AIR-OPERATED REGULATING VALVE 1KD9 (1KD29)	4			

TABLE 2 -

DIESEL GENERATOR AND SUPPORTING COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
KD D/G COOLING WATER HX 1A (1B)				
KD INTERCOOLER PUMP 1A (1B)				
KD JACKET WATER PUMP 1A (1B)				
KD SURGE TANK 1A (1B)				
D/G INTERCOOLER 1A (1B)				
MOV 1LD108 (113)	4		X	
LUBE OIL INTAKE STRAINER 1A (1B)			X	
LUBE OIL FILTER 1A (1B)			X	
LUBE OIL COOLER 1A (1B)			X	
VD D/G BLDG. VENTILATION FANS DSF-1A, 1C (1B, 1D)				
SOLENOID VALVE 1VG61 (65)	2			
SOLENOID VALVE 1VG62 (66)	2			
SOLENOID VALVE 1VG63 (67)	2			
SOLENOID VALVE 1VG64 (68)	2			
VG STARTING AIR TANKS 1A1, 1A2 (1B1, 1B2)		X		
VG INTAKE AIR AFTERCOOLERS AND DRYERS 1A1, 1A2 (1B1, 1B2)				X
VG CONTROL AIR VOLUME TANK 1A (1B)				
VG AIR COMPRESSORS 1A1, 1A2 (1B1, 1B2)				X
VG LINE PURIFIERS 1A1, 1A2 (1B1, 1B2)				
VG CONTROL AIR FILTER 1A (1B)				
VN AIR INTAKE SILENCER 1A (1B)				X
VN AIR EXHAUST SILENCER 1A (1B)				X
WN D/G SUMP PUMPS 1A2, 1A3 (1B2, 1B3)				X
ZD VACUUM BLOWER PACKAGE 1A (1B)				X

FW SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 1FW1A	8			
MOV 1FW27A	14			
MOV 1FW32B	8			
MOV 1FW33A	2			
MOV 1FW49B	2			
REFUELING WATER STORAGE TANK (FWST)		X		

TABLE 2 -

KC SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 1KC57A (82B)	12			
MOV 1KC1A (2B)	20			
MOV 1KC3A (18B)	10			
MOV 1KC50A (53B)	20			
MOV 1KC51A (54B)	4		X	
MOV 1KC56A (81B)	16			
MOV 1KC230A (228B)	8			
KC HX 1A (1B)		X		
KC PUMPS 1A1, 1A2 (1B1, 1B2)		X		
UNIT 1 KC SURGE TANK				
RHR PUMP MECH. SEAL HX 1A (1B)				

NC SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
PZR PORV 1NC32B	3	X		
PZR PORV 1NC34A	3	X		
PZR PORV 1NC36B	3	X		
SAFETY RELIEF VLV 1NC1	6			
SAFETY RELIEF VLV 1NC2	6			
SAFETY RELIEF VLV 1NC3	6			
MOV 1NC31B	3			
MOV 1NC33A	3			
MOV 1NC35B	3			

ND SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 1ND29 (14)	8		X #	
AOV 1ND34	8		X #	
MOV 1ND1B	14		#	
MOV 1ND2AC	14		X #	
MOV 1ND19A (4B)	14			
MOV 1ND30A (15B)	8			
MOV 1ND32 (17)	2		X	
MOV 1ND33 (18)	8		X	
MOV 1ND58A	8			

- *required to function during cold shutdown*

TABLE 2 -

ND SYSTEM COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 1ND68A (67B)	2		#	
ND PUMP 1A (1B)		X	#	
ND HX 1A (1B)		X	#	
NI SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 1NI50	1		X	
AOV 1NI56	1		X	
AOV 1NI57	0.75		X	
AOV 1NI58	0.75		X	
AOV 1NI61	1		X	
AOV 1NI67	1		X	
AOV 1NI68	0.75		X	
AOV 1NI69	0.75		X	
AOV 1NI72	1		X	
AOV 1NI78	1		X	
AOV 1NI79	0.75		X	
AOV 1NI80	0.75		X	
AOV 1NI84	1		X	
AOV 1NI90	1		X	
AOV 1NI91	0.75		X	
AOV 1NI92	0.75		X	
AOV 1NI163	0.75		X	
AOV 1NI174 (179)	0.75		X	
MOV 1NI9A (10B)	4		#	
MOV 1NI54A	10		X #	
MOV 1NI65B	10		X #	
MOV 1NI76A	10		#	
MOV 1NI88B	10		#	
MOV 1NI100B	8		X	
MOV 1NI103A (135B)	6		X	
MOV 1NI115B (144B)	1.5		X	
MOV 1NI118A (150B)	4		X	
MOV 1NI121A (152B)	4		X	
MOV 1NI136B	6			
MOV 1NI147A	2		X	
MOV 1NI162A	4		X	
MOV 1NI173A (178B)	8			
MOV 1NI183B	12		X	
MOV 1NI185A (184B)	18			
MOV 1NI332A	6			
MOV 1NI333B	6			

 # - required to function during cold shutdown

TABLE 2 -

NI SYSTEM COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
MOV 1NI334B	6		X	
1NI430A (NITROGEN BACKUP TO PZR PORVs)	0.75	X		
1NI431B (NITROGEN BACKUP TO PZR PORVs)	0.75	X		
NI PUMP 1A (1B)		X		
(not needed for inventory control for 1" SBLOCA)				
COLD LEG ACCUMULATORS		X		
(not needed for 1" SBLOCA)				

NS SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
MOV 1NS43A (38B)	8			
SPRAY NOZZLES DOWNSTREAM OF 1NS47 (42)				

NV SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
AOV 1NV238	3		X	
AOV 1NV241	3		X	
MOV 1NV94AC	4			
MOV 1NV95B	4			
MOV 1NV141A	4		X	
MOV 1NV142B	4		X	
MOV 1NV150B	2		X	
MOV 1NV151A	2		X	
MOV 1NV221A	8			
MOV 1NV222B	8			
MOV 1NV244A	3			
MOV 1NV245B	3			
CENTRIFUGAL CHARGING PUMP 1A (1B)		X		
SEAL WATER HX 1			X	
SEAL WATER INJECTION FILTER 1A (1B)			X	
SEAL WATER RETURN FILTER 1			X	
VOLUME CONTROL TANK 1		X	X	
(not needed for inventory control for 1" SBLOCA)				
REGENERATIVE HEAT EXCHANGER		X	X	
(not needed for inventory control for 1" SBLOCA)				

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TABLE 2 -

RN SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 1RN21A (25B)	6			
AOV 1RN22A (26B)	6			
AOV 1RN68A (161B)	1.5			
AOV 1RN89A (190B)	20			
AOV 1RN103A (204B)	3 ?			
AOV 1RN112A (213B)	2			
AOV 1RN114A (215B)	2		X	
AOV 1RN117A (218B)	2			
AOV 1RN126A (227B)	2		X	
AOV 1RN130A (231B)	2			
AOV 1RN140A (240B)	4		X	
AOV 1RN166A (170B)	2			
AOV 1RN252B	6		X	
AOV 1RN277B	6		X	
AOV 1RN442 (445)	4		X	
MOV 1RN1	42		X	
MOV 0RN2B	36		X	
MOV 0RN3A	36		X	
MOV 0RN4AC	36		X	
MOV 0RN5B	36		X	
MOV 0RN7A (9B)	36			
MOV 0RN10AC	36			
MOV 0RN11B	36			
MOV 0RN12AC	36			
MOV 0RN13A	36			
MOV 0RN14A (15B)	36		X	
MOV 1RN16A (18B)	36		X	
MOV 1RN40A	10		X	
MOV 1RN41B (43A)	10			
MOV 1RN42A	10			
MOV 1RN63B	10		X	
MOV 1RN64A	10		X	
MOV 1RN69A (162B)	8			
MOV 1RN70A (171B)	8			
MOV 1RN73A (174B)	8		X	
MOV 1RN86A (187B)	20			
MOV 1RN134A (235B)	18		X	
MOV 1RN137A (238B)	18		X	
MOV 0RN147AC (283AC)	36			
MOV 0RN148AC (284B)	36			
MOV 0RN149A (152B)	36			
MOV 0RN150A (151B)	36		X	
MOV 1RN253A	6		X	
MOV 1RN276A	6		X	
MOV 1RN279B	6		X	
MOV 1RN296A (297B)	36		X	
MOV 1RN299A	6		X	

TABLE 2 -

RN SYSTEM COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 0RN301AC	24		X	
MOV 0RN302B	24		X	
RN PUMP 1A (1B)		X		
RN STRAINER 1A (1B)				
STANDBY NUCLEAR SERVICE WATER POND		X		
SA, SM, SV COMPONENTS	**Line Size (in.)**	**Included in Seismic PRA**	**Press. bndry. integrity only**	**Non-Safety**
AOV 1SA49AB (48AB)	6			
STEAM STOP VALVE TO TDP - 1SA3	3			
STEAM CONTROL VALVE TO TDP - 1SA4	3			
MSIV 1SM1AB	34			
MSIV 1SM3AB	34			
MSIV 1SM5AB	34			
MSIV 1SM7AB	34			
MSI BYPASS VLV 1SM9AB	3			
MSI BYPASS VLV 1SM10AB	3			
MSI BYPASS VLV 1SM11AB	3			
MSI BYPASS VLV 1SM12AB	3			
AOV 1SM78	2		X	
AOV 1SM83	2			
AOV 1SM84	2		X	
AOV 1SM89	2			
AOV 1SM90	2		X	
AOV 1SM95	2			
AOV 1SM96	2		X	
AOV 1SM101	2			
SG PORV 1SV1AB	6	X	X	
SG PORV 1SV7AB	6	X	X	
SG PORV 1SV13AB	6	X	X	
SG PORV 1SV19AB	6	X	X	
SG SRV 1SV2	6		X	
SG SRV 1SV3	6		X	
SG SRV 1SV4	6		X	
SG SRV 1SV5	6		X	
SG SRV 1SV6	6		X	
SG SRV 1SV8	6		X	
SG SRV 1SV9	6		X	

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TABLE 2 -

SA, SM, SV COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
SG SRV 1SV10	6		X	
SG SRV 1SV11	6		X	
SG SRV 1SV12	6		X	
SG SRV 1SV14	6		X	
SG SRV 1SV15	6		X	
SG SRV 1SV16	6		X	
SG SRV 1SV17	6		X	
SG SRV 1SV18	6		X	
SG SRV 1SV20	6		X	
SG SRV 1SV21	6		X	
SG SRV 1SV22	6		X	
SG SRV 1SV23	6		X	
SG SRV 1SV24	6		X	
MOV 1SV25	6		X	
MOV 1SV26	6		X	
MOV 1SV27	6		X	
MOV 1SV28	6		X	

VA SYSTEM COMPONENTS - #	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AIR-OP DAMPER 1-ABF-D-1				X
AIR-OP DAMPER 1-ABF-D-2				X
AIR-OP DAMPER 1-ABF-D-3				X
AIR-OP DAMPER 1-ABF-D-4A (5A)				X
AIR-OP DAMPER 1-ABF-D-4B (5B)				X
AUX. BLDG. FILTERED EXHAUST FAN ABFXF-1A (1B)				X
AUX. BLDG. FILTER UNIT ABFU-1 (2)			X	X
RHR PUMP MOTOR AHU RHR-AHU-1A (1B)				

VC SYSTEM COMPONENTS - #	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 1VC1A (9A)	18			
MOV 1VC2A (10A)	18			
MOV 1VC3B (11B)	18			
MOV 1VC4B (12B)	18			
AIR-OP DAMPER CR-OAD-1 (5)				
AIR-OP DAMPER CR-OAD-3 (7)				
AIR-OP DAMPER CRA-OAD-3				

 # - only cursory review of these components required

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TABLE 2 -

VC SYSTEM COMPONENTS (cont.) - #	Line Size (in.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
AIR-OP DAMPER CRA-OAD-4				
MOTOR-OP DAMPER CR-D-1 (2)				
MOTOR-OP DAMPER CR-D-4 (3)				
MOTOR-OP DAMPER CR-D-5				
MOTOR-OP DAMPER CRA-D-1 (3)				
MOTOR-OP DAMPER CRA-D-2 (4)				
MOTOR-OP DAMPER CRA-D-5 (6)			X	
MOTOR-OP DAMPER CRA-D-11 (7)			X	
MOTOR-OP DAMPER CRA-D-12 (8)			X	
MOTOR-OP DAMPER CRA-D-13 (9)			X	
MOTOR-OP DAMPER CRA-D-14 (10)			X	
MOTOR-OP DAMPER CRA-D-16 (22)				
MOTOR-OP DAMPER CRA-D-17 (20)				
MOTOR-OP DAMPER CRA-D-19 (18)				
MOTOR-OP DAMPER CRA-D-21 (15)				
MOTOR-OP DAMPER CRA-D-24 (30)				
MOTOR-OP DAMPER CRA-D-26 (28)				
MOTOR-OP DAMPER CRA-D-27 (25)				
MOTOR-OP DAMPER CRA-D-29 (23)				
MOTOR-OP DAMPER CRA-D-34 (33)				
MOTOR-OP DAMPER CRA-D-35 (36)				
MOTOR-OP DAMPER SGR-D-1 (2)				
MOTOR-OP DAMPER SGR-D-3 (4)				
MOTOR-OP DAMPER SGR-D-5 (6)				
MOTOR-OP DAMPER SGR-D-7 (8)				
TRAIN A (B) CONTROL ROOM FILTER PACKAGE CRA-OAPFT-1 (2)				
TRAIN A (B) CONTROL ROOM FILTER PACKAGE FAN A-(B)				
TRAIN A (B) CONTROL ROOM AIR HANDLING UNIT CR-AHU-1 (2)				
TRAIN A (B) CONTROL ROOM AREA AIR HANDLING UNIT CRA-AHU-1 (2)				
FAN UNIT BR-XF-1 (2)				
SWITCHGEAR ROOM AIR HANDLING UNIT SGR-AHU-1A (1B)				
SWITCHGEAR ROOM AIR HANDLING UNIT SGR-AHU-1C (1D)				
SWITCHGEAR ROOM AIR HANDLING UNIT SGR-AHU-2A (2B)				
SWITCHGEAR ROOM AIR HANDLING UNIT SGR-AHU-2C (2D)				
HEATER CRA-H-1			X	
HEATER CRA-H-2			X	
HEATER CRA-H-3			X	
HEATER CRA-H-4			X	
HEATER CRA-H-5			X	
HEATER CRA-H-6 (8)			X	
HEATER CRA-H-7 (9)			X	
HEATER CRA-H-11 (10)			X	
HEATER CRA-H-13 (12)			X	
HEATER CRA-H-15 (14)			X	
# - *only cursory review of these components required*				

TABLE 2 -

VC SYSTEM COMPONENTS (cont.) - #	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
HEATER CRA-H-19 (18)			X	
HEATER CRA-H-20 (17)			X	
HEATER CRA-H-21 (16)			X	
HEATER CRA-H-23 (27)			X	
HEATER CRA-H-24 (28)			X	
HEATER CRA-H-25 (29)			X	
HEATER CRA-H-26 (30)			X	
YC SYSTEM COMPONENTS - #	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 1YC2A (83B)	1.25			
MOV 1YC39B (38A)	8		X	
3-WAY VALVE 1YC54 (113)	4		X	
3-WAY VALVE 1YC76 (135)	5		X	
3-WAY VALVE 1YC148 (204)	2.5			
3-WAY VALVE 1YC162 (218)	2.5			
3-WAY VALVE 1YC176 (232)	2.5			
3-WAY VALVE 1YC190 (246)	2.5			
CONTROL ROOM AREA CHILLED WATER PUMP CRA-P-1 (2)				
CONTROL ROOM AREA CHILLER CRA-C-1 (2)				
COMPRESSION TANK CRA-T-1 (2)				
# - only cursory review of these components required				

TABLE 3 -

MECHANICAL EQUIPMENT LIST FOR MCGUIRE UNIT 2 IPEEE WALKDOWN

('B' train components are shown in parentheses. A detailed walkdown of these components is not necessary if the 'B' train configuration is similar to the 'A' train.)

CA SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
AOV 2CA20AB	6			
AOV 2CA27A (32B)	4			
AOV 2CA36AB	4			
AOV 2CA48AB	4			
AOV 2CA52AB	4			
AOV 2CA56A (44B)	4			
AOV 2CA60A (40B)	4			
AOV 2CA64AB	4			
MOV 2CA7AC	8			
MOV 2CA11A (9B)	8			
MOV 2CA15A (18B)	6			
MOV 2CA38B	4			
MOV 2CA50B	4			
MOV 2CA54AC	4			
MOV 2CA58A (46B)	4			
MOV 2CA62A (42B)	4			
MOV 2CA66AC	4			
MOV 2CA86A (116B)	8			
MOV 2CA161C	8			
TURBINE DRIVEN PUMP 2 (INCLUDING CONDENSATE EDUCTOR)		X		
TURBINE DRIVEN PUMP LUBE OIL HX				
MOTOR DRIVEN PUMP 2A (2B)		X		
WZ SUMP PUMP A (B) FROM GROUNDWATER DRAINAGE SUMP B (B)				

DIESEL GENERATOR AND SUPPORTING COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
D/G 2A (2B)		X		
FUEL OIL DAY TANK 2A (2B)		X		
FUEL OIL STORAGE TANK 2A (2B)				
FUEL OIL BOOSTER PUMP 2A (2B)			X	
FUEL OIL FUEL TRANSFER FILTERS 2A1, 2A2 (2B1, 2B2)			X	
FUEL OIL TRANSFER PUMP 2A (2B)				

TABLE 3 -

DIESEL GENERATOR AND SUPPORTING COMPONENTS (cont.)	Line Size (In.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AIR-OPERATED REGULATING VALVE 2KD9 (2KD29)	4			
KD D/G COOLING WATER HX 2A (2B)				
KD INTERCOOLER PUMP 2A (2B)				
KD JACKET WATER PUMP 2A (2B)				
KD SURGE TANK 2A (2B)				
D/G INTERCOOLER 2A (2B)				
MOV 2LD108 (113)	4		X	
LUBE OIL INTAKE STRAINER 2A (2B)			X	
LUBE OIL FILTER 2A (2B)			X	
LUBE OIL COOLER 2A (2B)			X	
VD D/G BLDG. VENTILATION FANS DSF-2A, 2C (2B, 2D)				
SOLENOID VALVE 2VG61 (65)	2			
SOLENOID VALVE 2VG62 (66)	2			
SOLENOID VALVE 2VG63 (67)	2			
SOLENOID VALVE 2VG64 (68)	2			
VG STARTING AIR TANKS 2A1, 2A2 (2B1, 2B2)		X		
VG INTAKE AIR AFTERCOOLERS AND DRYERS 2A1, 2A2 (2B1, 2B2)				X
VG CONTROL AIR VOLUME TANK 2A (2B)				
VG AIR COMPRESSORS 2A1, 2A2 (2B1, 2B2)				X
VG LINE PURIFIERS 2A1, 2A2 (2B1, 2B2)				
VG CONTROL AIR FILTER 2A (2B)				
VN AIR INTAKE SILENCER 2A (2B)				X
VN AIR EXHAUST SILENCER 2A (2B)				X
WN D/G SUMP PUMPS 2A2, 2A3 (2B2, 2B3)				X
ZD VACUUM BLOWER PACKAGE 2A (2B)				X
FW SYSTEM COMPONENTS	Line Size (In.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 2FW1A	8			
MOV 2FW27A	14			
MOV 2FW32B	8			
MOV 2FW33A	2			
MOV 2FW49B	2			
REFUELING WATER STORAGE TANK (FWST)		X		

TABLE 3 -

KC SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 2KC57A (82B)	12			
MOV 2KC1A (2B)	20			
MOV 2KC3A (18B)	10			
MOV 2KC50A (53B)	20			
MOV 2KC51A (54B)	4		X	
MOV 2KC56A (81B)	16			
MOV 2KC230A (228B)	8			
KC HX 2A (2B)		X		
KC PUMPS 2A1, 2A2 (2B1, 2B2)		X		
UNIT 2 KC SURGE TANK				
RHR PUMP MECH. SEAL HX 2A (2B)				

NC SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
PZR PORV 2NC32B	3	X		
PZR PORV 2NC34A	3	X		
PZR PORV 2NC36B	3	X		
SAFETY RELIEF VLV 2NC1	6			
SAFETY RELIEF VLV 2NC2	6			
SAFETY RELIEF VLV 2NC3	6			
MOV 2NC31B	3			
MOV 2NC33A	3			
MOV 2NC35B	3			

ND SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 2ND29 (14)	8		X #	
AOV 2ND34	8		X #	
MOV 2ND1B	14		#	
MOV 2ND2AC	14		X #	
MOV 2ND19A (4B)	14			
MOV 2ND30A (15B)	8			
MOV 2ND32 (17)	2		X	
MOV 2ND33 (18)	8		X	
MOV 2ND58A	8			

 # - required to function during cold shutdown

TABLE 3 -

ND SYSTEM COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 2ND68A (67B)	2		#	
ND PUMP 2A (2B)		X	#	
ND HX 2A (2B)		X	#	
NI SYSTEM COMPONENTS	**Line Size (in.)**	**Included in Seismic PRA**	**Press. bndry. integrity only**	**Non-Safety**
AOV 2NI50	1		X	
AOV 2NI56	1		X	
AOV 2NI57	0.75		X	
AOV 2NI58	0.75		X	
AOV 2NI61	1		X	
AOV 2NI67	1		X	
AOV 2NI68	0.75		X	
AOV 2NI69	0.75		X	
AOV 2NI72	1		X	
AOV 2NI78	1		X	
AOV 2NI79	0.75		X	
AOV 2NI80	0.75		X	
AOV 2NI84	1		X	
AOV 2NI90	1		X	
AOV 2NI91	0.75		X	
AOV 2NI92	0.75		X	
AOV 2NI163	0.75		X	
AOV 2NI174 (179)	0.75		X	
MOV 2NI9A (10B)	4		#	
MOV 2NI54A	10		X #	
MOV 2NI65B	10		X #	
MOV 2NI76A	10		#	
MOV 2NI88B	10		#	
MOV 2NI100B	8		X	
MOV 2NI103A (135B)	6		X	
MOV 2NI115B (144B)	1.5		X	
MOV 2NI118A (150B)	4		X	
MOV 2NI121A (152B)	4		X	
MOV 2NI136B	6			
MOV 2NI147A	2		X	
MOV 2NI162A	4		X	
MOV 2NI173A (178B)	8			
MOV 2NI183B	12		X	
MOV 2NI185A (184B)	18			
MOV 2NI332A	6			
MOV 2NI333B	6			

 # - required to function during cold shutdown

TABLE 3 -

NI SYSTEM COMPONENTS (cont.)	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 2NI334B	6		X	
2NI430A (NITROGEN BACKUP TO PZR PORVs)	0.75	X		
2NI431B (NITROGEN BACKUP TO PZR PORVs)	0.75	X		
NI PUMP 2A (2B)		X		
(not needed for inventory control for 1" SBLOCA)				
COLD LEG ACCUMULATORS		X		
(not needed for 1" SBLOCA)				

NS SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
MOV 2NS43A (38B)	8			
SPRAY NOZZLES DOWNSTREAM OF 2NS47 (42)				

NV SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 2NV238	3		X	
AOV 2NV241	3		X	
MOV 2NV94AC	4			
MOV 2NV95B	4			
MOV 2NV141A	4		X	
MOV 2NV142B	4		X	
MOV 2NV150B	2		X	
MOV 2NV151A	2		X	
MOV 2NV221A	8			
MOV 2NV222B	8			
MOV 2NV244A	3			
MOV 2NV245B	3			
CENTRIFUGAL CHARGING PUMP 2A (2B)		X		
SEAL WATER HX 2			X	
SEAL WATER INJECTION FILTER 2A (2B)			X	
SEAL WATER RETURN FILTER 2			X	
VOLUME CONTROL TANK 2		X	X	
(not needed for inventory control for 1" SBLOCA)				
REGENERATIVE HEAT EXCHANGER		X	X	
(not needed for inventory control for 1" SBLOCA)				

TABLE 3 -

RN SYSTEM COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 2RN21A (25B)	6			
AOV 2RN22A (26B)	6			
AOV 2RN68A (161B)	1.5			
AOV 2RN89A (190B)	20			
AOV 2RN103A (204B)	3 ?			
AOV 2RN112A (213B)	2			
AOV 2RN114A (215B)	2		X	
AOV 2RN117A (218B)	2			
AOV 2RN126A (227B)	2		X	
AOV 2RN130A (231B)	2			
AOV 2RN140A (240B)	4		X	
AOV 2RN166A (170B)	2			
AOV 2RN252B	6		X	
AOV 2RN277B	6		X	
MOV 2RN1	42		X	
MOV 2RN16A (18B)	36		X	
MOV 2RN40A	10		X	
MOV 2RN41B (43A)	10			
MOV 2RN42A	10			
MOV 2RN63B	10		X	
MOV 2RN64A	10		X	
MOV 2RN69A (162B)	8			
MOV 2RN70A (171B)	8			
MOV 2RN73A (174B)	8		X	
MOV 2RN86A (187B)	20			
MOV 2RN134A (235B)	18		X	
MOV 2RN137A (238B)	18		X	
MOV 2RN253A	6		X	
MOV 2RN276A	6		X	
MOV 2RN279B	6		X	
MOV 2RN296A (297B)	36		X	
MOV 2RN299A	6		X	
RN PUMP 2A (2B)		X		
RN STRAINER 2A (2B)				
STANDBY NUCLEAR SERVICE WATER POND		X		

SA, SM, SV COMPONENTS	Line Size (in.)	Included in Seismic PRA	Press. bndry. integrity only	Non-Safety
AOV 2SA49AB (48AB)	6			
STEAM STOP VALVE TO TDP - 2SA3	3			
STEAM CONTROL VALVE TO TDP - 2SA4	3			
MSIV 2SM1AB	34			

TABLE 3 -

SA, SM, SV COMPONENTS (cont.)	Line Size (In.)	Included in Seismic PRA	Press. bndry. Integrity only	Non-Safety
MSIV 2SM3AB	34			
MSIV 2SM5AB	34			
MSIV 2SM7AB	34			
MSI BYPASS VLV 2SM9AB	3			
MSI BYPASS VLV 2SM10AB	3			
MSI BYPASS VLV 2SM11AB	3			
MSI BYPASS VLV 2SM12AB	3			
AOV 2SM78	2		X	
AOV 2SM83	2			
AOV 2SM84	2		X	
AOV 2SM89	2			
AOV 2SM90	2		X	
AOV 2SM95	2			
AOV 2SM96	2		X	
AOV 2SM101	2			
SG PORV 2SV1AB	6	X	X	
SG PORV 2SV7ABC	6	X	X	
SG PORV 2SV13AB	6	X	X	
SG PORV 2SV19AB	6	X	X	
SG SRV 2SV2	6		X	
SG SRV 2SV3	6		X	
SG SRV 2SV4	6		X	
SG SRV 2SV5	6		X	
SG SRV 2SV6	6		X	
SG SRV 2SV8	6		X	
SG SRV 2SV9	6		X	
SG SRV 2SV10	6		X	
SG SRV 2SV11	6		X	
SG SRV 2SV12	6		X	
SG SRV 2SV14	6		X	
SG SRV 2SV15	6		X	
SG SRV 2SV16	6		X	
SG SRV 2SV17	6		X	
SG SRV 2SV18	6		X	
SG SRV 2SV20	6		X	
SG SRV 2SV21	6		X	
SG SRV 2SV22	6		X	
SG SRV 2SV23	6		X	
SG SRV 2SV24	6		X	
MOV 2SV25	6		X	
MOV 2SV26	6		X	
MOV 2SV27	6		X	
MOV 2SV28	6		X	

TABLE 4 -

ELECTRICAL EQUIPMENT LIST FOR MCGUIRE UNIT 1 IPEEE WALKDOWN

	Included in	
AREA TERMINATION CABINETS	Seismic PRA	Non-Safety
	Included in	
AUXILIARY SHUTDOWN PANEL	Seismic PRA	Non-Safety
	X	
	Included in	
SUPPORT FOR CA SYSTEM	Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC MCC 1EMXA (1EMXB) (1EMXB-2)	X	
600V AC MCC 1EMXA-4	X	
600V AC MCC 1EMXA-5	X	
125V DC DISTRIBUTION CENTER 1EVDA (1EVDB)	X	
125V DC PANELBOARD 1EVDA (1EVDB)	X	
120V AC PANELBOARD 1EVKA (1EVKB) & MANUAL TRANSFER SWITCH	X	
LOCAL MOTOR-DRIVEN PUMP CONTROL PANEL	X	
LOCAL TURBINE-DRIVEN PUMP CONTROL PANEL	X	
ESFAS TRAIN A (B) 48V DC POWER SUPPLIES		
BATTERY EVCA (EVCB)		
BATTERY CHARGER EVCA (EVCB)		
DC CIRCUIT BREAKER FOR MDP1A (MDP1B) AUTOSTART		
INVERTER 1EVIA (1EVIB)		
TD PUMP RELAY HF		
MFW PUMP RELAY BB(A) (BB(B))		
MFW PUMP RELAY R/TT(FPTCA) (R/TT(FPTCB))		
MFW PUMP RELAY R/TT-1 (FPTCA) (R/TT-1 (FPTCB))		
RELAY R25C(A) (R25C(B))		
RELAY K609A (K609B)		
RELAY LRA6 (LRB6)		
LOAD SHED RELAY LSA1 (LSB1)		
TEST RELAY TSA2 (TSB2)		
ESFAS SLAVE RELAY K633A (K633B)		
ESFAS SLAVE RELAY K634A (K634B)		
ESFAS MASTER RELAY K516A (K516B)		
ESFAS INPUT RELAY K113A (K113B)		
ESFAS INPUT RELAY K114A (K114B)		
ESFAS INPUT RELAY K121A (K121B)		
ESFAS INPUT RELAY K150A (K150B)		
ESFAS INPUT RELAY K230A (K230B)		
ESFAS INPUT RELAY K231A (K231B)		
ESFAS INPUT RELAY K250A (K250B)		
ESFAS INPUT RELAY K255A (K255B)		

TABLE 4 -

SUPPORT FOR CA SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
ESFAS INPUT RELAY K331A (K331B)		
ESFAS INPUT RELAY K332A (K332B)		
ESFAS INPUT RELAY K333A (K333B)		
ESFAS INPUT RELAY K334A (K334B)		
ESFAS INPUT RELAY K407A (K407B)		
ESFAS INPUT RELAY K408A (K408B)		
ESFAS INPUT RELAY K409A (K409B)		
ESFAS INPUT RELAY K410A (K410B)		
ESFAS LOGIC MODULE A317A (A317B)		
D/G LOAD SEQUENCER (LOAD ACTUATE) RELAY 2JA(RA8) (2JA(RB8))		
D/G LOAD SEQUENCER RELAY A3 (B3)		
SG A LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG A LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG A LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG A LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
INSTR. LOOP CONTAINING 1CASV/MV0200, SV0201, & SV0202		
INSTR. LOOP CONTAINING 1CASV/MV0270 (0320) & SV0271 (0321)		
INSTR. LOOP CONTAINING 1CALL/P /SV/ML0520 (0480)		
INSTR. LOOP CONTAINING 1CALL/P /SV/ML0560 (0440)		
INSTR. LOOP CONTAINING 1CALL/P /SV/ML0600 (0400)		

TABLE 4 -

SUPPORT FOR CA SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
INSTR. LOOP CONTAINING 1CALL/P /SV/ML0640 (0360)		
INSTR. LOOP CONTAINING 1CAFE/PS/FT/P 5000 (5010), PS5001 (5011), & PS5002 (5012)		
INSTR. LOOP CONTAINING 1CAPS/PT/P 5020 (5030)		
INSTR. LOOP CONTAINING 1CAFE/PS/FT/P 5040, PS5041, PS5042, & PS5044		
INSTR. LOOP CONTAINING 1CAPS/PT/PG/P 5050		
INSTR. LOOP CONTAINING 1CAPS/PT/P 5070 (5080)		
INSTR. LOOP CONTAINING 1CAFE/FT/P 5090 (5110) & FT5091 (5111)		
INSTR. LOOP CONTAINING 1CAFE/FT/P 5100 (5120) & FT5101 (5121)		
INSTR. LOOP CONTAINING 1CAPS/PT/P 5160		
INSTR. LOOP CONTAINING 1CFLT/P 5490		
INSTR. LOOP CONTAINING 1CFLT/P 5500		
INSTR. LOOP CONTAINING 1CFLT/P 5510		
INSTR. LOOP CONTAINING 1CFLT/P 5520		
INSTR. LOOP CONTAINING 1CFLT/P 5530		
INSTR. LOOP CONTAINING 1CFLT/P 5540		
INSTR. LOOP CONTAINING 1CFLT/P 5550		
INSTR. LOOP CONTAINING 1CFLT/P 5560		
INSTR. LOOP CONTAINING 1CFLT/P 5570		
INSTR. LOOP CONTAINING 1CFLT/P 5580		
INSTR. LOOP CONTAINING 1CFLT/P 5590		
INSTR. LOOP CONTAINING 1CFLT/P 5600		
INSTR. LOOP CONTAINING 1CFLT/P 6000		
INSTR. LOOP CONTAINING 1CFLT/P 6010		
INSTR. LOOP CONTAINING 1CFLT/P 6020		
INSTR. LOOP CONTAINING 1CFLT/P 6030		
SUPPORT FOR DIESEL GENERATORS	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC LOAD CENTER 1ELXA (1ELXB)	X	
600V AC LOAD CENTER 1ELXC (1ELXD)	X	
600V AC LOAD CENTER 1ELXE (1ELXF)	X	
600V AC MCC 1EMXA (1EMXB)	X	
600V AC MCC 1EMXE	X	
120V AC PANELBOARD 1DG1A (1DG1B)	X	
125V DC PANELBOARD 1EVDA (1EVDD)	X	
125V DC BATTERY / RACK	X	
INVERTER	X	
D/G CONTROL PANELS	X	
BATTERY 1EDGA (1EDGB) AND CHARGERS	X	
BATTERY 1EDGA (1EDGB) INPUT & OUTPUT BREAKERS		
600 / 120V AC TRANSFORMER TO PANELBOARD 1DG1A (1DG1B)		
BREAKER DG1A-2 (DG1B-2)		
AUTO RESET RELAY ED(TRA3) (ED(TRB3))		
BLACKOUT RELAY DC(BOA) (DC(BOB))		

TABLE 4 -

SUPPORT FOR DIESEL GENERATORS (cont.)	Included in Seismic PRA	Non-Safety
BLACKOUT LOGIC RELAY DA(LRA2) (DA(LRB2))		
DEFEAT TEST RELAY FB(DTSA) (FB(DTSB))		
D/G START RELAY 2TRA(A) (2TRA(B))		
D/G START RELAY 2TRA1(A) (2TRA1(B))		
D/G START RELAY 2TRB(A) (2TRB(B))		
D/G START RELAY 2TRC(A) (2TRC(B))		
DIESEL STARTING AIR RELAY RVG1(A) (RVG1(B))		
DIESEL STARTING AIR RELAY RVG2(A) (RVG2(B))		
DIESEL STARTING AIR RELAY RVG3(A) (RVG3(B))		
D/G AUTOSTART RELAY DASR(A) (DASR(B))		
LOAD SHED RELAY AB(LSA1) (AB(LSB1))		
LOAD SHED RELAY AA(LSA2) (AA(LSB2))		
LOAD SHED TIMER RELAY GC(LSAT) (GC(LSBT))		
LOGIC TIMER RELAY FD(LT1A) (FD(LT1B))		
LOGIC TIMER RELAY FD(LT2A) (FD(LT2B))		
RELAY AC(127ZBX)		
RELAY AE(127XBX)		
RELAY 3CR(A) (3CR(B))		
RELAY ART(A) (ART(B))		
RELAY DG1FRA (DG1FRB)		
RELAY ESX(A) (ESX(B))		
RELAY 2TRA(A) (2TRA(B))		
RELAY FC(TRA1) (FC(TRB1))		
RELAY HRA(AA) (HRB(BB))		
RELAY RTD(A) (RTD(B))		
RELAY S1A1X(A) (S1A1X(B))		
RELAY S1A2X(A) (S1A2X(B))		
RELAY S1A4X(A) (S1A4X(B))		
RELAY TSA3 (TSB3)		
RESET RELAY EB(RRA) (EB(RRB))		
RESTART RELAY FA(RGA) (FA(RGB))		
UNDERVOLTAGE RELAY 4CA(A) (4CA(B))		
UNDERVOLTAGE RELAY 4DA(A) (4DA(B))		
UNDERVOLTAGE RELAY AC(127ZAX) (AC(127ZBX))		
UNDERVOLTAGE RELAY AD(127YAX) (AD(127YBX))		
UNDERVOLTAGE RELAY AE(127XAX) (AE(127XBX))		
RESET SWITCH 4CC(A) (4CC(B))		
RESET SWITCH EG135		
SPEED SWITCH S1A1 (S1B1)		
SPEED SWITCH S1A2 (S1B2)		
INSTR. LOOP CONTAINING 1FDLS5040 & LS5041 (5050 & 5051)		
INSTR. LOOP CONTAINING 1LDPG/PS5120 & PS5121/5122/5123 (5130 & 5131/5132/5133)		
INSTR. LOOP CONTAINING 1LDPT/PG5360 (5370)		
INSTR. LOOP CONTAINING 1VGPG/PS5040 & PG/PS5050 (5060 & 5070)		
INSTR. LOOP CONTAINING 1VGPG/PS5080 (5090)		
INSTR. LOOP CONTAINING 1VGPG/PS5120 & PG/PS5122 (5140 & 5142)		
INSTR. LOOP CONTAINING 1VGPG/PS5130 & PG/PS5132 (5150 & 5152)		

TABLE 4 -

SUPPORT FOR FW SYSTEM	Included in Seismic PRA	Non-Safety
INSTR. LOOP CONTAINING 1FWLT/P 5000		
INSTR. LOOP CONTAINING 1FWLT/P 5010		
INSTR. LOOP CONTAINING 1FWLT/P 5020		
SUPPORT FOR KC SYSTEM	**Included in Seismic PRA**	**Non-Safety**
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC MCC 1EMXA (1EMXB)	X	
125V DC PANELBOARD 1EVDA (1EVDD)	X	
D/G ACCELRATED SEQUENCE RELAY 2DB(AA2) (2DB(AB2))		
D/G AUTO RESET AUXILIARY RELAY CC(TRA3X) (CC(TRB3X))		
D/G LOAD ACTUATE RELAY 2HA(RA6) (2HA(RB6))		
D/G LOAD SEQUENCER RELAY LSA2 (LSB2)		
D/G LOAD SEQUENCER RELAY RA6 (RB6)		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2AD(ATA1) (2AD(ATB1))		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2BD(ATA2) (2BD(ATB2))		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2CD(ATA3) (2CD(ATB3))		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2DD(ATA4) (2DD(ATB4))		
D/G SEQUENCE TIMER RELAY GA(ST4A) (GA(ST4B))		
D/G SEQUENCE TIMER RELAY GB(ST2A) (GB(ST2B))		
D/G SEQUENCE TIMER RELAY HB(ST6A) (HB(ST6B))		
D/G SEQUENCE TIMER RELAY HC(ST5A) (HC(ST5B))		
D/G TEST RELAY 2FB(TSA4) (2FB(TSB4))		
ESFAS SLAVE RELAY K610A (K610B)		
TEST RELAY TSA1 (TSB1)		
INSTR. LOOP CONTAINING 1KCPT/P 5490 (5500)		
INSTR. LOOP CONTAINING 1KCFE/FT/P 5530 (5540)		
INSTR. LOOP CONTAINING 1KCFE/FT/FS/SV/P 5670 (5680)		
MAIN CONTROL BOARDS	**Included in Seismic PRA**	**Non-Safety**
	X	
SUPPORT FOR NC SYSTEM	**Included in Seismic PRA**	**Non-Safety**
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC LOAD CENTER 1ELXA (1ELXB)	X	
600V AC LOAD CENTER 1ELXC (1ELXD)	X	
600V AC MCC 1EMXC (1EMXD)	X	
125V DC PANELBOARD 1EVDA (1EVDD)	X	

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TABLE 4 -

SUPPORT FOR NC SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
ACCELERATED SEQUENCE RELAY 2CB(AA1) (2CB(AB1))		
ESFAS SLAVE RELAY K608A (K608B)		
ESG AUXILIARY RELAY BD(ESGAX1) (BD(ESGBX1))		
LOAD SHED RELAY AB(LSA1) (AB(LSB1))		
MAXIMUM SEQUENCE TIMER RELAY BE(LT3A) (BE(LT3B))		
RELAY 2AB(LRA4) (2AB(LRB4))		
RELAY DC(BOA) (DC(BOB))		
RELAY DA(LRA2) (DA(LRB2))		
RELAY FC(TRA1) (FC(TRB1))		
SEQUENCER LOAD RELAY 2CA(RA1) (2CA(RB1))		
SEQUENCER LOAD RELAY 2DA(RA2) (2DA(RB2))		
SEQUENCER TIMER RELAY JA(ST1A) (JA(ST1B))		
TEST RELAY 2FB(TSA4) (2FB(TSB4))		
TEST RELAY 2GB(TSA5) (2GB(TSB5))		
UNDERVOLTAGE RELAY CB(127AX) (CB(127BX))		
INSTR. LOOP CONTAINING 1NCSV0320 & SV0321		
INSTR. LOOP CONTAINING 1NCSV0340 & SV0341		
INSTR. LOOP CONTAINING 1NCSV0360 & SV0361		
SUPPORT FOR ND SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC MCC 1EMXA (1EMXB-1)	X	
125V DC DISTRIBUTION CENTER 1EVDA (1EVDD)	X	
D/G LOAD ACTUATE RELAY 2FA(RA4) (2FA(RB4))		
RELAY DGTSA6 (DGTSB6)		
RELAY LSA1 (LSB1)		
INSTR. LOOP CONTAINING 1NDRD/P 5000 (5120) & 1NDRD/P /CR5060 (5070)		
INSTR. LOOP CONTAINING 1NDFE/FS5040 (5050)		
INSTR. LOOP CONTAINING 1NDPT/P 5090 (5080)		
INSTR. LOOP CONTAINING 1NDFE/FT5250 (5260)		
SUPPORT FOR NI SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC MCC 1EMXA	X	
600V AC MCC 1EMXA-1	X	
600V AC MCC 1EMXB-1	X	
125V DC PANELBOARD 1EVDA (1EVDD)	X	
D/G LOAD ACTUATE RELAY 2EA(RA3) (2EA(RB3))		
D/G LOAD SEQUENCER RELAY RA3 (RB3)		
D/G RELAY LSA1 (LSB1)		

TABLE 4 -

SUPPORT FOR NI SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
D/G TEST RELAY DGTSA6 (DGTSB6)		
LIMIT SWITCH TO MOV 1NI147A		
LIMIT SWITCH TO MOV 1NI185A (1NI184B)		
INSTR. LOOP CONTAINING 1NILT/P 5260		
INSTR. LOOP CONTAINING 1NILT/P 5270		
SUPPORT FOR NV SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC MCC 1EMXA	X	
600V AC MCC 1EMXB-1	X	
600V AC MCC 1EMXB-2	X	
125V DC PANELBOARD 1EVDA (1EVDD)	X	
D/G AUTO RESET RELAY ED(TRA3) (ED(TRB3))		
D/G LOAD ACTUATE RELAY 2DA(RA2) (2DA(RB2))		
D/G TEST RELAY TSA2 (TSAB)		
CONTAINMENT HIGH PRESS. CHANNEL 2 BISTABLE (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 2 TRANSMITTER (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 3 BISTABLE (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 3 TRANSMITTER (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 4 BISTABLE (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 4 TRANSMITTER (ESFAS)		
ESFAS INPUT RELAY K131A (K131B)		
ESFAS INPUT RELAY K133A (K133B)		
ESFAS INPUT RELAY K201A (K201B)		
ESFAS INPUT RELAY K217A (K271B)		
ESFAS INPUT RELAY K247A (K247B)		
ESFAS INPUT RELAY K330A (K330B)		
ESFAS INPUT RELAY K344A (K344B)		
ESFAS INPUT RELAY K417A (K417B)		
ESFAS INPUT RELAY K430A (K430B)		
ESFAS INPUT RELAY K444A (K444B)		
ESFAS LOGIC MODULE A210A (A210B)		
ESFAS LOGIC MODULE A213A (A213B)		
ESFAS LOGIC MODULE A308A (A308B)		
ESFAS LOGIC MODULE A313A (A313B)		
ESFAS LOGIC MODULE A411A (A411B)		
ESFAS LOGIC MODULE A416A (A416B)		
ESFAS MASTER RELAY K501A (K501B)		
ESFAS SLAVE RELAY K603A (K603B)		
ESFAS SLAVE RELAY K607A (K607B)		
LOW STEAMLINE PRESSURE CHANNEL 1 BISTABLE (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 1 TRANSMITTER (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 2 BISTABLE (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 2 TRANSMITTER (ESFAS)		

TABLE 4 -

SUPPORT FOR NV SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
LOW STEAMLINE PRESSURE CHANNEL 4 BISTABLE (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 4 TRANSMITTER (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 1 BISTABLE (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 1 TRANSMITTER (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 2 BISTABLE (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 2 TRANSMITTER (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 3 BISTABLE (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 3 TRANSMITTER (ESFAS)		
INSTR. LOOP CONTAINING 1NVFE/FT/SS/P 5620 & 1NVFT/P 5621		
INSTR. LOOP CONTAINING 1NVFE/FT/SS/P 5630 & 1NVFT/P 5631		
PROCESS CONTROL CABINETS	Included in Seismic PRA	Non-Safety
SUPPORT FOR RN SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)	X	
600V AC MCC 1EMXA	X	
600V AC MCC 1EMXB-2	X	
600V AC MCC 1EMXE	X	
600V AC MCC 1EMXH	X	
600V AC MCC 1EMXH-1	X	
600V AC MCC 2EMXH	X	
125V DC DISTRIBUTION CENTER 1EVDA (1EVDD)	X	
D/G LOAD SEQUENCER RELAY 2IA(RA7) (2IA(RB7))		
D/G LOAD SEQUENCER RELAY LSA1 (LSB1)		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2ED(ATA5) (2ED(ATB5))		
D/G SEQUENCE TIMER RELAY HA(ST7A) (HA(ST7B))		
D/G TEST RELAY 2FB(TSA4) (2FB(TSB4))		
INSTR. LOOP CONTAINING 1RNPG/PS5000 & SV0210, 0211, 0220, 0221 (5010 & 0250, 0251, 0260, 0261)		
INSTR. LOOP CONTAINING 1RNPT/PS/P 5020 (5030)		
INSTR. LOOP CONTAINING 1RNFE/FT/P 5040 & FT5041 (5050 & 5051)		
INSTR. LOOP CONTAINING 1RNFE/FT/P 5220 (5230)		
INSTR. LOOP CONTAINING 1RNFE/FT/P 5360 & PT/P 5361 (5370 & 5371)		
REACTOR PROTECTION SYSTEM		Non-Safety
REACTOR TRIP BREAKER A (B)		
REACTOR TRIP BYPASS BREAKER A (B)		

TABLE 4 -

SUPPORT FOR SM, SV SYSTEMS	Included in Seismic PRA	Non-Safety
600V AC MCC 1EMXA-2	X	
600V AC MCC 1EMXB-4	X	
INSTR. LOOP CONTAINING 1SMSV0010 (0011), (0013) & LL0010, 0011		
INSTR. LOOP CONTAINING 1SMSV0030 (0031), (0033) & LL0030, 0031		
INSTR. LOOP CONTAINING 1SMSV0050 (0051), (0053) & LL0050, 0051		
INSTR. LOOP CONTAINING 1SMSV0070 (0071), (0073) & LL0070, 0071		
INSTR. LOOP CONTAINING 1SMSV/LL/ML0090 (SV0091)		
INSTR. LOOP CONTAINING 1SMSV/LL/ML0100 (SV0101)		
INSTR. LOOP CONTAINING 1SMSV/LL/ML0110 (SV0111)		
INSTR. LOOP CONTAINING 1SMSV/LL/ML0120 (SV0121)		
INSTR. LOOP CONTAINING 1SMFE/FT/P 5000, RCPS, FWCS (FE/FT/P 5010, RCPS, FWCS)		
INSTR. LOOP CONTAINING 1SMFE/FT/P 5020, RCPS, FWCS (FE/FT/P 5030, RCPS, FWCS)		
INSTR. LOOP CONTAINING 1SMFE/FT/P 5040, RCPS, FWCS (FE/FT/P 5050, RCPS, FWCS)		
INSTR. LOOP CONTAINING 1SMFE/FT/P 5060, RCPS, FWCS (FE/FT/P 5070, RCPS, FWCS)		
INSTR. LOOP CONTAINING 1SMPT/P 5080 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5090 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5100 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5110 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5120 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5130 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5140 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5150 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5160 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5170 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5180 & RCPS		
INSTR. LOOP CONTAINING 1SMPT/P 5190 & RCPS		
	Included in Seismic PRA	Non-Safety
SOLID STATE PROTECTION SYSTEM	X	
	Included in Seismic PRA	Non-Safety
SUPPORT FOR VA SYSTEM - #		
POWER SUPPLY FOR VA SYSTEM		X
	Included in Seismic PRA	Non-Safety
SUPPORT FOR VC SYSTEM - #		
600V AC MCC 1EMXH		
# - *only cursory review of these components required*		

TABLE 4 -

SUPPORT FOR YC SYSTEM - #	Included In Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 1ETA (1ETB)		
4160V AC SWITCHGEAR 2ETA (2ETB)		
600V AC MCC 1EMXG		
600V AC MCC 2EMXG		
600V AC MCC 1EMXH		
600V AC MCC 2EMXH		
120V AC PANELBOARD EKA (EKB)		
120V AC PANELBOARD KXA		
# - *only cursory review of these components required*		

TABLE 5 -

ELECTRICAL EQUIPMENT LIST FOR MCGUIRE UNIT 2 IPEEE WALKDOWN		
	Included in	
AREA TERMINATION CABINETS	Seismic PRA	Non-Safety
	Included in	
AUXILIARY SHUTDOWN PANEL	Seismic PRA	Non-Safety
	X	
	Included in	
SUPPORT FOR CA SYSTEM	Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC MCC 2EMXA (2EMXB) (2EMXB-2)	X	
600V AC MCC 2EMXA-4	X	
600V AC MCC 2EMXA-5	X	
125V DC DISTRIBUTION CENTER 2EVDA (2EVDB)	X	
125V DC PANELBOARD 2EVDA (2EVDB)	X	
120V AC PANELBOARD 2EVKA (2EVKB) & MANUAL TRANSFER SWITCH	X	
LOCAL MOTOR-DRIVEN PUMP CONTROL PANEL	X	
LOCAL TURBINE-DRIVEN PUMP CONTROL PANEL	X	
ESFAS TRAIN A (B) 48V DC POWER SUPPLIES		
BATTERY EVCA (EVCB)		
BATTERY CHARGER EVCA (EVCB)		
DC CIRCUIT BREAKER FOR MDP2A (MDP2B) AUTOSTART		
INVERTER 2EVIA (2EVIB)		
TD PUMP RELAY HF		
MFW PUMP RELAY BB(A) (BB(B))		
MFW PUMP RELAY R/TT(FPTCA) (R/TT(FPTCB))		
MFW PUMP RELAY R/TT-1 (FPTCA) (R/TT-1 (FPTCB))		
RELAY R25C(A) (R25C(B))		
RELAY K609A (K609B)		
RELAY LRA6 (LRB6)		
LOAD SHED RELAY LSA1 (LSB1)		
TEST RELAY TSA2 (TSB2)		
ESFAS SLAVE RELAY K633A (K633B)		
ESFAS SLAVE RELAY K634A (K634B)		
ESFAS MASTER RELAY K516A (K516B)		
ESFAS INPUT RELAY K113A (K113B)		
ESFAS INPUT RELAY K114A (K114B)		
ESFAS INPUT RELAY K121A (K121B)		
ESFAS INPUT RELAY K150A (K150B)		
ESFAS INPUT RELAY K230A (K230B)		
ESFAS INPUT RELAY K231A (K231B)		
ESFAS INPUT RELAY K250A (K250B)		
ESFAS INPUT RELAY K255A (K255B)		
ESFAS INPUT RELAY K331A (K331B)		

TABLE 5 -

SUPPORT FOR CA SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
ESFAS INPUT RELAY K332A (K332B)		
ESFAS INPUT RELAY K333A (K333B)		
ESFAS INPUT RELAY K334A (K334B)		
ESFAS INPUT RELAY K407A (K407B)		
ESFAS INPUT RELAY K408A (K408B)		
ESFAS INPUT RELAY K409A (K409B)		
ESFAS INPUT RELAY K410A (K410B)		
ESFAS LOGIC MODULE A317A (A317B)		
D/G LOAD SEQUENCER (LOAD ACTUATE) RELAY 2JA(RA8) (2JA(RB8))		
D/G LOAD SEQUENCER RELAY A3 (B3)		
SG A LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG A LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG A LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG A LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG A LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG B LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG B LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG C LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG C LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 1 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 1 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 2 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 2 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 3 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 3 LEVEL TRANSMITTER		
SG D LO-LO WATER LEVEL CHANNEL 4 BISTABLE		
SG D LO-LO WATER LEVEL CHANNEL 4 LEVEL TRANSMITTER		
INSTR. LOOP CONTAINING 2CASV/MV0200, SV0201, & SV0202		
INSTR. LOOP CONTAINING 2CASV/MV0270 (0320) & SV0271 (0321)		
INSTR. LOOP CONTAINING 2CALL/P /SV/ML0520 (0480)		
INSTR. LOOP CONTAINING 2CALL/P /SV/ML0560 (0440)		
INSTR. LOOP CONTAINING 2CALL/P /SV/ML0600 (0400)		
INSTR. LOOP CONTAINING 2CALL/P /SV/ML0640 (0360)		

TABLE 5 -

SUPPORT FOR CA SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
INSTR. LOOP CONTAINING 2CAFE/PS/FT/P 5000 (5010), PS5001 (5011), & PS5002 (5012)		
INSTR. LOOP CONTAINING 2CAPS/PT/P 5020 (5030)		
INSTR. LOOP CONTAINING 2CAFE/PS/FT/P 5040, PS5041, PS5042, & PS5044		
INSTR. LOOP CONTAINING 2CAPS/PT/PG/P 5050		
INSTR. LOOP CONTAINING 2CAPS/PT/P 5070 (5080)		
INSTR. LOOP CONTAINING 2CAFE/FT/P 5090 (5110) & FT5091 (5111)		
INSTR. LOOP CONTAINING 2CAFE/FT/P 5100 (5120) & FT5101 (5121)		
INSTR. LOOP CONTAINING 2CAPS/PT/P 5160		
INSTR. LOOP CONTAINING 2CFLT/P 5490		
INSTR. LOOP CONTAINING 2CFLT/P 5500		
INSTR. LOOP CONTAINING 2CFLT/P 5510		
INSTR. LOOP CONTAINING 2CFLT/P 5520		
INSTR. LOOP CONTAINING 2CFLT/P 5530		
INSTR. LOOP CONTAINING 2CFLT/P 5540		
INSTR. LOOP CONTAINING 2CFLT/P 5550		
INSTR. LOOP CONTAINING 2CFLT/P 5560		
INSTR. LOOP CONTAINING 2CFLT/P 5570		
INSTR. LOOP CONTAINING 2CFLT/P 5580		
INSTR. LOOP CONTAINING 2CFLT/P 5590		
INSTR. LOOP CONTAINING 2CFLT/P 5600		
INSTR. LOOP CONTAINING 2CFLT/P 6000		
INSTR. LOOP CONTAINING 2CFLT/P 6010		
INSTR. LOOP CONTAINING 2CFLT/P 6020		
INSTR. LOOP CONTAINING 2CFLT/P 6030		
SUPPORT FOR DIESEL GENERATORS	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC LOAD CENTER 2ELXA (2ELXB)	X	
600V AC LOAD CENTER 2ELXC (2ELXD)	X	
600V AC LOAD CENTER 2ELXE (2ELXF)	X	
600V AC MCC 2EMXA (2EMXB)	X	
600V AC MCC 2EMXE	X	
120V AC PANELBOARD 2DG2A (2DG2B)	X	
125V DC PANELBOARD 2EVDA (2EVDD)	X	
125V DC BATTERY / RACK	X	
INVERTER	X	
D/G CONTROL PANELS	X	
BATTERY 2EDGA (2EDGB) AND CHARGERS	X	
BATTERY 2EDGA (2EDGB) INPUT & OUTPUT BREAKERS		
600 / 120V AC TRANSFORMER TO PANELBOARD 2DG2A (2DG2B)		
BREAKER DG2A-2 (DG2B-2)		
AUTO RESET RELAY ED(TRA3) (ED(TRB3))		
BLACKOUT RELAY DC(BOA) (DC(BOB))		
BLACKOUT LOGIC RELAY DA(LRA2) (DA(LRB2))		

TABLE 5 -

SUPPORT FOR DIESEL GENERATORS (cont.)	Included In Seismic PRA	Non-Safety
DEFEAT TEST RELAY FB(DTSA) (FB(DTSB))		
D/G START RELAY 2TRA(A) (2TRA(B))		
D/G START RELAY 2TRA1(A) (2TRA1(B))		
D/G START RELAY 2TRB(A) (2TRB(B))		
D/G START RELAY 2TRC(A) (2TRC(B))		
DIESEL STARTING AIR RELAY RVG1(A) (RVG1(B))		
DIESEL STARTING AIR RELAY RVG2(A) (RVG2(B))		
DIESEL STARTING AIR RELAY RVG3(A) (RVG3(B))		
D/G AUTOSTART RELAY DASR(A) (DASR(B))		
LOAD SHED RELAY AB(LSA1) (AB(LSB1))		
LOAD SHED RELAY AA(LSA2) (AA(LSB2))		
LOAD SHED TIMER RELAY GC(LSAT) (GC(LSBT))		
LOGIC TIMER RELAY FD(LT1A) (FD(LT1B))		
LOGIC TIMER RELAY FD(LT2A) (FD(LT2B))		
RELAY AC(127ZBX)		
RELAY AE(127XBX)		
RELAY 3CR(A) (3CR(B))		
RELAY ART(A) (ART(B))		
RELAY DG1FRA (DG1FRB)		
RELAY ESX(A) (ESX(B))		
RELAY 2TRA(A) (2TRA(B))		
RELAY FC(TRA1) (FC(TRB1))		
RELAY HRA(AA) (HRB(BB))		
RELAY RTD(A) (RTD(B))		
RELAY S1A1X(A) (S1A1X(B))		
RELAY S1A2X(A) (S1A2X(B))		
RELAY S1A4X(A) (S1A4X(B))		
RELAY TSA3 (TSB3)		
RESET RELAY EB(RRA) (EB(RRB))		
RESTART RELAY FA(RGA) (FA(RGB))		
UNDERVOLTAGE RELAY 4CA(A) (4CA(B))		
UNDERVOLTAGE RELAY 4DA(A) (4DA(B))		
UNDERVOLTAGE RELAY AC(127ZAX) (AC(127ZBX))		
UNDERVOLTAGE RELAY AD(127YAX) (AD(127YBX))		
UNDERVOLTAGE RELAY AE(127XAX) (AE(127XBX))		
RESET SWITCH 4CC(A) (4CC(B))		
RESET SWITCH EG135		
SPEED SWITCH S2 A2 (S2 B2)		
SPEED SWITCH S2 A2 (S2 B2)		
INSTR. LOOP CONTAINING 2FDLS5040 & LS5041 (5050 & 5051)		
INSTR. LOOP CONTAINING 2LDPG/PS5120 & PS5121/5122/5123 (5130 & 5131/5132/5133)		
INSTR. LOOP CONTAINING 2LDPT/PG5360 (5370)		
INSTR. LOOP CONTAINING 2VGPG/PS5040 & PG/PS5050 (5060 & 5070)		
INSTR. LOOP CONTAINING 2VGPG/PS5080 (5090)		
INSTR. LOOP CONTAINING 2VGPG/PS5120 & PG/PS5122 (5140 & 5142)		
INSTR. LOOP CONTAINING 2VGPG/PS5130 & PG/PS5132 (5150 & 5152)		

TABLE 5 -

SUPPORT FOR FW SYSTEM	Included in Seismic PRA	Non-Safety
INSTR. LOOP CONTAINING 2FWLT/P 5000		
INSTR. LOOP CONTAINING 2FWLT/P 5010		
INSTR. LOOP CONTAINING 2FWLT/P 5020		
SUPPORT FOR KC SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC MCC 2EMXA (2EMXB)	X	
125V DC PANELBOARD 2EVDA (2EVDD)	X	
D/G ACCELRATED SEQUENCE RELAY 2DB(AA2) (2DB(AB2))		
D/G AUTO RESET AUXILIARY RELAY CC(TRA3X) (CC(TRB3X))		
D/G LOAD ACTUATE RELAY 2HA(RA6) (2HA(RB6))		
D/G LOAD SEQUENCER RELAY LSA2 (LSB2)		
D/G LOAD SEQUENCER RELAY RA6 (RB6)		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2AD(ATA1) (2AD(ATB1))		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2BD(ATA2) (2BD(ATB2))		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2CD(ATA3) (2CD(ATB3))		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2DD(ATA4) (2DD(ATB4))		
D/G SEQUENCE TIMER RELAY GA(ST4A) (GA(ST4B))		
D/G SEQUENCE TIMER RELAY GB(ST2A) (GB(ST2B))		
D/G SEQUENCE TIMER RELAY HB(ST6A) (HB(ST6B))		
D/G SEQUENCE TIMER RELAY HC(ST5A) (HC(ST5B))		
D/G TEST RELAY 2FB(TSA4) (2FB(TSB4))		
ESFAS SLAVE RELAY K610A (K610B)		
TEST RELAY TSA1 (TSB1)		
INSTR. LOOP CONTAINING 2KCPT/P 5490 (5500)		
INSTR. LOOP CONTAINING 2KCFE/FT/P 5530 (5540)		
INSTR. LOOP CONTAINING 2KCFE/FT/FS/SV/P 5670 (5680)		
MAIN CONTROL BOARDS	Included in Seismic PRA	Non-Safety
	X	
SUPPORT FOR NC SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC LOAD CENTER 2ELXA (2ELXB)	X	
600V AC LOAD CENTER 2ELXC (2ELXD)	X	
600V AC MCC 2EMXC (2EMXD)	X	
125V DC PANELBOARD 2EVDA (2EVDD)	X	
ACCELERATED SEQUENCE RELAY 2CB(AA1) (2CB(AB1))		

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TABLE 5 -

SUPPORT FOR NC SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
ESFAS SLAVE RELAY K608A (K608B)		
ESG AUXILIARY RELAY BD(ESGAX2) (BD(ESGBX2))		
LOAD SHED RELAY AB(LSA2) (AB(LSB2))		
MAXIMUM SEQUENCE TIMER RELAY BE(LT3A) (BE(LT3B))		
RELAY 2AB(LRA4) (2AB(LRB4))		
RELAY DC(BOA) (DC(BOB))		
RELAY DA(LRA2) (DA(LRB2))		
RELAY FC(TRA2) (FC(TRB2))		
SEQUENCER LOAD RELAY 2CA(RA2) (2CA(RB2))		
SEQUENCER LOAD RELAY 2DA(RA2) (2DA(RB2))		
SEQUENCER TIMER RELAY JA(ST2A) (JA(ST2B))		
TEST RELAY 2FB(TSA4) (2FB(TSB4))		
TEST RELAY 2GB(TSA5) (2GB(TSB5))		
UNDERVOLTAGE RELAY CB(127AX) (CB(127BX))		
INSTR. LOOP CONTAINING 2NCSV0320 & SV0321		
INSTR. LOOP CONTAINING 2NCSV0340 & SV0341		
INSTR. LOOP CONTAINING 2NCSV0360 & SV0361		
SUPPORT FOR ND SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC MCC 2EMXA (2EMXB-1)	X	
125V DC DISTRIBUTION CENTER 2EVDA (2EVDD)	X	
D/G LOAD ACTUATE RELAY 2FA(RA4) (2FA(RB4))		
RELAY DGTSA6 (DGTSB6)		
RELAY LSA1 (LSB2)		
INSTR. LOOP CONTAINING 2NDRD/P 5000 (5120) & 2NDRD/P /CR5060 (5070)		
INSTR. LOOP CONTAINING 2NDFE/FS5040 (5050)		
INSTR. LOOP CONTAINING 2NDPT/P 5090 (5080)		
INSTR. LOOP CONTAINING 2NDFE/FT5250 (5260)		
SUPPORT FOR NI SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC MCC 2EMXA	X	
600V AC MCC 2EMXA-1	X	
600V AC MCC 2EMXB-1	X	
125V DC PANELBOARD 2EVDA (2EVDD)	X	
D/G LOAD ACTUATE RELAY 2EA(RA3) (2EA(RB3))		
D/G LOAD SEQUENCER RELAY RA3 (RB3)		
D/G RELAY LSA2 (LSB2)		
D/G TEST RELAY DGTSA6 .(DGTSB6)		

TABLE 5 -

SUPPORT FOR NI SYSTEM (cont.)	Included in Seismic PRA	Non-Safety
LIMIT SWITCH TO MOV 2NI147A		
LIMIT SWITCH TO MOV 2NI185A (2NI184B)		
INSTR. LOOP CONTAINING 2NILT/P 5260		
INSTR. LOOP CONTAINING 2NILT/P 5270		
SUPPORT FOR NV SYSTEM	Included in Seismic PRA	Non-Safety
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC MCC 2EMXA	X	
600V AC MCC 2EMXB-1	X	
600V AC MCC 2EMXB-2	X	
125V DC PANELBOARD 2EVDA (2EVDD)	X	
D/G AUTO RESET RELAY ED(TRA3) (ED(TRB3))		
D/G LOAD ACTUATE RELAY 2DA(RA2) (2DA(RB2))		
D/G TEST RELAY TSA2 (TSAB)		
CONTAINMENT HIGH PRESS. CHANNEL 2 BISTABLE (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 2 TRANSMITTER (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 3 BISTABLE (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 3 TRANSMITTER (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 4 BISTABLE (ESFAS)		
CONTAINMENT HIGH PRESS. CHANNEL 4 TRANSMITTER (ESFAS)		
ESFAS INPUT RELAY K131A (K131B)		
ESFAS INPUT RELAY K133A (K133B)		
ESFAS INPUT RELAY K201A (K201B)		
ESFAS INPUT RELAY K217A (K271B)		
ESFAS INPUT RELAY K247A (K247B)		
ESFAS INPUT RELAY K330A (K330B)		
ESFAS INPUT RELAY K344A (K344B)		
ESFAS INPUT RELAY K417A (K417B)		
ESFAS INPUT RELAY K430A (K430B)		
ESFAS INPUT RELAY K444A (K444B)		
ESFAS LOGIC MODULE A210A (A210B)		
ESFAS LOGIC MODULE A213A (A213B)		
ESFAS LOGIC MODULE A308A (A308B)		
ESFAS LOGIC MODULE A313A (A313B)		
ESFAS LOGIC MODULE A411A (A411B)		
ESFAS LOGIC MODULE A416A (A416B)		
ESFAS MASTER RELAY K501A (K501B)		
ESFAS SLAVE RELAY K603A (K603B)		
ESFAS SLAVE RELAY K607A (K607B)		
LOW STEAMLINE PRESSURE CHANNEL 1 BISTABLE (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 1 TRANSMITTER (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 2 BISTABLE (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 2 TRANSMITTER (ESFAS)		
LOW STEAMLINE PRESSURE CHANNEL 4 BISTABLE (ESFAS)		

TABLE 5 -

	Included in Seismic PRA	Non-Safety
SUPPORT FOR NV SYSTEM (cont.)		
LOW STEAMLINE PRESSURE CHANNEL 4 TRANSMITTER (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 1 BISTABLE (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 1 TRANSMITTER (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 2 BISTABLE (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 2 TRANSMITTER (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 3 BISTABLE (ESFAS)		
PRESSURIZER LOW PRESSURE CHANNEL 3 TRANSMITTER (ESFAS)		
INSTR. LOOP CONTAINING 2NVFE/FT/SS/P 5620 & 2NVFT/P 5621		
INSTR. LOOP CONTAINING 2NVFE/FT/SS/P 5630 & 2NVFT/P 5631		
	Included in Seismic PRA	Non-Safety
PROCESS CONTROL BOARDS		
	Included in Seismic PRA	Non-Safety
SUPPORT FOR RN SYSTEM		
4160V AC SWITCHGEAR 2ETA (2ETB)	X	
600V AC MCC 2EMXA	X	
600V AC MCC 2EMXB-2	X	
600V AC MCC 2EMXE	X	
600V AC MCC 2EMXH	X	
600V AC MCC 2EMXH-1	X	
600V AC MCC 2EMXH	X	
125V DC DISTRIBUTION CENTER 2EVDA (2EVDD)	X	
D/G LOAD SEQUENCER RELAY 2IA(RA7) (2IA(RB7))		
D/G LOAD SEQUENCER RELAY LSA2 (LSB2)		
D/G LOADING TRANSIENT ADVANCE TIMER RELAY 2ED(ATA5) (2ED(ATB5))		
D/G SEQUENCE TIMER RELAY HA(ST7A) (HA(ST7B))		
D/G TEST RELAY 2FB(TSA4) (2FB(TSB4))		
INSTR. LOOP CONTAINING 2RNPG/PS5000 & SV0210, 0211, 0220, 0221 (5010 & 0250, 0251, 0260, 0261)		
INSTR. LOOP CONTAINING 2RNPT/PS/P 5020 (5030)		
INSTR. LOOP CONTAINING 2RNFE/FT/P 5040 & FT5041 (5050 & 5051)		
INSTR. LOOP CONTAINING 2RNFE/FT/P 5220 (5230)		
INSTR. LOOP CONTAINING 2RNFE/FT/P 5360 & PT/P 5361 (5370 & 5371)		
	Included in Seismic PRA	Non-Safety
REACTOR PROTECTION SYSTEM		
REACTOR TRIP BREAKER A (B)		
REACTOR TRIP BYPASS BREAKER A (B)		

TABLE 5 -

SUPPORT FOR SM, SV SYSTEMS	Included In Seismic PRA	Non-Safety
600V AC MCC 2EMXA-2	X	
600V AC MCC 2EMXB-4	X	
INSTR. LOOP CONTAINING 2SMSV0010 (0011), (0013) & LL0010, 0011		
INSTR. LOOP CONTAINING 2SMSV0030 (0031), (0033) & LL0030, 0031		
INSTR. LOOP CONTAINING 2SMSV0050 (0051), (0053) & LL0050, 0051		
INSTR. LOOP CONTAINING 2SMSV0070 (0071), (0073) & LL0070, 0071		
INSTR. LOOP CONTAINING 2SMSV/LL/ML0090 (SV0091)		
INSTR. LOOP CONTAINING 2SMSV/LL/ML0100 (SV0101)		
INSTR. LOOP CONTAINING 2SMSV/LL/ML0110 (SV0111)		
INSTR. LOOP CONTAINING 2SMSV/LL/ML0120 (SV0121)		
INSTR. LOOP CONTAINING 2SMFE/FT/P 5000, RCPS, FWCS (FE/FT/P 5010, RCPS, FWCS)		
INSTR. LOOP CONTAINING 2SMFE/FT/P 5020, RCPS, FWCS (FE/FT/P 5030, RCPS, FWCS)		
INSTR. LOOP CONTAINING 2SMFE/FT/P 5040, RCPS, FWCS (FE/FT/P 5050, RCPS, FWCS)		
INSTR. LOOP CONTAINING 2SMFE/FT/P 5060, RCPS, FWCS (FE/FT/P 5070, RCPS, FWCS)		
INSTR. LOOP CONTAINING 2SMPT/P 5080 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5090 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5100 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5110 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5120 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5130 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5140 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5150 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5160 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5170 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5180 & RCPS		
INSTR. LOOP CONTAINING 2SMPT/P 5190 & RCPS		
SOLID STATE PROTECTION SYSTEM	Included In Seismic PRA	Non-Safety
	X	

TABLE 6 -

CONTAINMENT PERFORMANCE COMPONENT LIST FOR MCGUIRE UNIT 1

IPEEE WALKDOWN

CONTAINMENT ISOLATION VALVES AND PENETRATIONS	Penetr. No.	Valve No.	Line Size (in.)	Valve Position		
				Norm.	Fail	Acc.
UPPER COMPARTMENT PURGE INLET	M367	1VP1B	24	C	C	C
UPPER COMPARTMENT PURGE INLET	M367	1VP2A	24	C	C	C
UPPER COMPARTMENT PURGE INLET	M454	1VP3B	24	C	C	C
UPPER COMPARTMENT PURGE INLET	M454	1VP4A	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M357	1VP6B	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M357	1VP7A	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M456	1VP8B	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M456	1VP9A	24	C	C	C
CONTAINMENT PURGE EXHAUST	M368	1VP10A	24	C	C	C
CONTAINMENT PURGE EXHAUST	M368	1VP11B	24	C	C	C
CONTAINMENT PURGE EXHAUST	M455	1VP12A	24	C	C	C
CONTAINMENT PURGE EXHAUST	M455	1VP13B	24	C	C	C
CONTAINMENT PURGE	M119	1VP15A	24	C	C	C
CONTAINMENT PURGE	M119	1VP16B	24	C	C	C
INCORE INSTR. ROOM PURGE IN	M213	1VP17A	12	C	C	C
INCORE INSTR. ROOM PURGE IN	M213	1VP18B	12	C	C	C
INCORE INSTR. ROOM PURGE OUT	M138	1VP19A	24	C	C	C
INCORE INSTR. ROOM PURGE OUT	M138	1VP20B	24	C	C	C
CONTAINMENT AIR RELEASE	M243	1VQ1A	6	C	C	C
CONTAINMENT AIR RELEASE	M243	1VQ2B	6	C	C	C
CONTAINMENT AIR ADDITION	M384	1VQ5B	6	C	C	C
CONTAINMENT AIR ADDITION	M384	1VQ6A	6	C	C	C
CONT. VENT UNITS COND. DRAINS TO DRN. TK.	M221	1WL321A	6	O	AI	C
CONT. VENT UNITS COND. DRAINS TO DRN. TK.	M221	1WL322B	6	O	AI	C
EQUIPMENT HATCH	********	********				
UPPER CONTAINMENT PERSONNEL HATCH	C392	********				
LOWER CONTAINMENT PERSONNEL HATCH	C152	********				
PERSONNEL AIR LOCK INFLATABLE DOOR SEALS (INCLUDING AIR SUPPLY SYSTEM)						
PERSONNEL AIR LOCK 208 V LINEAR ACTUATOR DOOR LATCHES						
600V AC MCC 1EMXA						
600V AC MCC 1EMXB						
125V DC PANELBOARD 1EVDA						
125V DC PANELBOARD 1EVDB						
125V DC PANELBOARD 1EVDD						
120V AC PANELBOARD 1EKVA						
120V AC PANELBOARD 1EKVD						

TABLE 6 -

('B' train components are shown in parentheses. A detailed walkdown of these components is not necessary if the 'B' train configuration is similar to the 'A' train.)		
HYDROGEN MITIGATION SYSTEM		
GLOW PLUG IGNITERS		
600V AC MCC 1EMXA (1EMXB)		
TRANSFORMER HMTA (HMTB)		
TRANSFORMER 1EMXA (1EMXB)		
ICE BASKETS & DOORS		
NS SYSTEM	Line Size (in.)	Included in Seismic PRA
NS PUMP 1A (1B)		X
NS HX 1A (1B)		X
4160V AC SWITCHGEAR 1ETA (1ETB)		
600V AC MCC 1EMXA (1EMXB)		
125V DC PANELBOARD 1EVDA (1EVDD)		
VX SYSTEM	Line Size (in.)	Included in Seismic PRA
AIR-OP DAMPER 1RAF-D-5 (-8)		
AIR-OP DAMPER 1RAF-D-6 (-9)		
AIR-OP DAMPER 1RAF-D-7 (-10)		
MOTOR-OP ISOLATION DAMPER 1RAF-D-2 (-4)		
CONTAINMENT AIR RETURN FAN 1A (1B)		X
600V AC MCC 1EMXA (1EMXB)		
600V AC MCC 1EMXC (1EMXD)		
120V AC PANELBOARD 1EKVA (1EKVD)		
PRESSURE TRANSMITTER 1VXPT5390 (incl. assoc. breaker, alarm module, & 48 dc power supply)		
(PRESSURE TRANSMITTER 1VXPT5380 (incl. assoc. breaker, alarm module, & 48 dc power supply))		
PRESSURE TRANSMITTER 1VXPT5500 (incl. assoc. breaker, alarm module, & 48 dc power supply)		
(PRESSURE TRANSMITTER 1VXPT5490 (incl. assoc. breaker, alarm module, & 48 dc power supply))		

TABLE 7 -

CONTAINMENT PERFORMANCE COMPONENT LIST FOR MCGUIRE UNIT 2

IPEEE WALKDOWN

CONTAINMENT ISOLATION VALVES AND PENETRATIONS	Penetr. No.	Valve No.	Line Size (in.)	Valve Position Norm.	Fail	Acc.
UPPER COMPARTMENT PURGE INLET	M367	2VP1B	24	C	C	C
UPPER COMPARTMENT PURGE INLET	M367	2VP2A	24	C	C	C
UPPER COMPARTMENT PURGE INLET	M454	2VP3B	24	C	C	C
UPPER COMPARTMENT PURGE INLET	M454	2VP4A	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M357	2VP6B	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M357	2VP7A	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M456	2VP8B	24	C	C	C
LOWER COMPARTMENT PURGE INLET	M456	2VP9A	24	C	C	C
CONTAINMENT PURGE EXHAUST	M368	2VP10A	24	C	C	C
CONTAINMENT PURGE EXHAUST	M368	2VP11B	24	C	C	C
CONTAINMENT PURGE EXHAUST	M455	2VP12A	24	C	C	C
CONTAINMENT PURGE EXHAUST	M455	2VP13B	24	C	C	C
CONTAINMENT PURGE	M119	2VP15A	24	C	C	C
CONTAINMENT PURGE	M119	2VP16B	24	C	C	C
INCORE INSTR. ROOM PURGE IN	M213	2VP17A	12	C	C	C
INCORE INSTR. ROOM PURGE IN	M213	2VP18B	12	C	C	C
INCORE INSTR. ROOM PURGE OUT	M138	2VP19A	24	C	C	C
INCORE INSTR. ROOM PURGE OUT	M138	2VP20B	24	C	C	C
CONTAINMENT AIR RELEASE	M243	2VQ1A	6	C	C	C
CONTAINMENT AIR RELEASE	M243	2VQ2B	6	C	C	C
CONTAINMENT AIR ADDITION	M384	2VQ5B	6	C	C	C
CONTAINMENT AIR ADDITION	M384	2VQ6A	6	C	C	C
CONT. VENT UNITS COND. DRAINS TO DRN. TK.	M221	2WL321A	6	O	AI	C
CONT. VENT UNITS COND. DRAINS TO DRN. TK.	M221	2WL322B	6	O	AI	C
EQUIPMENT HATCH	********	********				
UPPER CONTAINMENT PERSONNEL HATCH	C392	********				
LOWER CONTAINMENT PERSONNEL HATCH	C152	********				
PERSONNEL AIR LOCK INFLATABLE DOOR SEALS (INCLUDING AIR SUPPLY SYSTEM)						
PERSONNEL AIR LOCK 208 V LINEAR ACTUATOR DOOR LATCHES						
600V AC MCC 2EMXA						
600V AC MCC 2EMXB						
125V DC PANELBOARD 2EVDA						
125V DC PANELBOARD 2EVDB						
125V DC PANELBOARD 2EVDD						
120V AC PANELBOARD 2EKVA						
120V AC PANELBOARD 2EKVD						

TABLE 7 -

('B' train components are shown in parentheses. A detailed walkdown of these components is not necessary if the 'B' train configuration is similar to the 'A' train.)		
HYDROGEN MITIGATION SYSTEM		
GLOW PLUG IGNITERS		
600V AC MCC 2EMXA (2EMXB)		
TRANSFORMER HMTA (HMTB)		
TRANSFORMER 2EMXA (2EMXB)		
ICE BASKETS & DOORS		
NS SYSTEM	Line Size (In.)	Included in Seismic PRA
NS PUMP 2A (2B)		X
NS HX 2A (2B)		X
4160V AC SWITCHGEAR 2ETA (2ETB)		
600V AC MCC 2EMXA (2EMXB)		
125V DC PANELBOARD 2EVDA (2EVDD)		
VX SYSTEM	Line Size (In.)	Included in Seismic PRA
AIR-OP DAMPER 2RAF-D-5 (-8)		
AIR-OP DAMPER 2RAF-D-6 (-9)		
AIR-OP DAMPER 2RAF-D-7 (-10)		
MOTOR-OP ISOLATION DAMPER 2RAF-D-2 (-4)		
CONTAINMENT AIR RETURN FAN 2A (2B)		X
600V AC MCC 2EMXA (2EMXB)		
600V AC MCC 2EMXC (2EMXD)		
120V AC PANELBOARD 2EKVA (2EKVD)		
PRESSURE TRANSMITTER 2VXPT5390 (incl. assoc. breaker, alarm module, & 48 dc power supply)		
(PRESSURE TRANSMITTER 2VXPT5380 (incl. assoc. breaker, alarm module, & 48 dc power supply))		
PRESSURE TRANSMITTER 2VXPT5500 (incl. assoc. breaker, alarm module, & 48 dc power supply)		
(PRESSURE TRANSMITTER 2VXPT5490 (incl. assoc. breaker, alarm module, & 48 dc power supply))		

ATTACHMENT 2

McGuire Unit 1 SWEL-1

Equipment #	Description	System	Class of Equipment	Building	Elev.	Room #	Column-Grid	Listed on IPEEE List	Major New/ Replacement Equipment	Prior IPEEE Discrepancy/ Enhancement	Safety Function
1CAPU0001	1A MDCAP	CA	05-Horizontal Pump	Aux Bldg	716	600/MDCAP Rm		X			NC-Press, DH
1CA-PN-AFPA	MDCAP 1A Control Panel	CA	20-Instrument and Control Panel	Aux Bldg	716	600/MDCAP Rm	CC-61	X			NC-Press, DH
1CA-PN-AFTP	TDCAP Control Panel	CA	20-Instrument and Control Panel	Aux Bldg	716	600/TDCA Pump Rm		X			NC-Press, DH
1CAPU0003	TDCAP	CA	05-Horizontal Pump	Aux Bldg	716	600/TDCA Pump Rm		X			NC-Press, DH
1CAHX0003	TDCAP Bearing Oil Cooler	CA	21-Tanks/HtXs	Aux Bldg	716	600/TDCA Pump Rm		X			NC-Press, DH
1CA-56A	MDCAP Flow Control to 1B SG	CA	07-AOV	Aux Bldg	716 +8	600/MDCAP Rm		X			NC-Press, DH
1SA-48ABC	TDCAP steam supply from 1C SG	SA	07-AOV	Inner Doghouse	767+10	Inner Doghouse		X			NC-Press, DH
1SA-49AB	TDCAP steam supply from 1B SG	SA	07-AOV	Inner Doghouse	767+11	Inner Doghouse		X			NC-Press, DH
1VGTK0062	1A1 EDG Starting Air Tank	VG	21-Tanks/HtXs	EDG Bldg	736.5	1A EDG Rm		X			Various
1VGTK0063	1A2 EDG Starting Air Tank	VG	21-Tanks/HtXs	EDG Bldg	736.5	1B EDG Rm		X			Various
1VGTK0064	1B1 EDG Starting Air Tank	VG	21-Tanks/HtXs	EDG Bldg	736.5	1A EDG Rm		X			Various
1VGTK0065	1B2 EDG Starting Air Tank	VG	21-Tanks/HtXs	EDG Bldg	736.5	1B EDG Rm		X			Various
1VG-61	EDG Sarting Air Solenoid	VG	08-MOV/SOV	EDG Bldg	736.5	1A EDG Rm		X			Various
1VG-66	EDG Sarting Air Solenoid	VG	08-MOV/SOV	EDG Bldg	736.5	1B EDG Rm		X			Various
1B EDG	1B Emergency Diesel Generator Set	EDG	17-Engine Generator	EDG Bldg	736.5	1B EDG Rm		X			Various
1KCTK0009	KC Surge Tank	KC	21-Tanks/HtXs	Aux Bldg	767	9	JJ-57	X			Various
1KCHX0005	1A KC HtX	KC	21-Tanks/HtXs	Aux Bldg	750	KC HtX Area	JJ-56	X			Various
1KCHX0006	1B KC HtX	KC	21-Tanks/HtXs	Aux Bldg	750	KC HtX Area	JJ-56	X		X - missing grout for saddle base and curb	Various
1KCPU0001	1A1 KC Pump	KC	05-Horizontal Pump	Aux Bldg	733	U1 KC Pump Area	GG-55	X			Various

Equipment #	Description	System	Class of Equipment	Building	Elev.	Room #	Column-Grid	Listed on IPEEE List	Major New/ Replacement Equipment	Prior IPEEE Discrepancy/ Enhancement	Safety Function
1KCPU0002	1A2 KC Pump	KC	05-Horizontal Pump	Aux Bldg	733	U1 KC Pump Area	GG-56	X			Various
1KC-50A	KC Aux Bldg Non-ESS Return Isol	KC	08-MOV/SOV	Aux Bldg	750	Open General Area	GG-57	X	X - (EC-75450, replace valve)		Various
1KC-53B	Aux Bldg Non-Essential Header Isolation	KC	08-MOV/SOV	Aux Bldg	750	Open General Area	KK-55	X			Various
1NC-32B	NC System Pressurizer PORV	NC	07-AOV	Rx Bldg		Przr Cavity		X			NC-Press, NC Inventory
1NC-34A	NC System Pressurizer PORV	NC	07-AOV	Rx Bldg		Przr Cavity		X			NC-Press, NC Inventory
1NDRD5060	1A ND pump dsch temp	ND	19-Temperature Sensor	Aux Bldg	750+9	732	LL-51				Containment Integrity
1NDRD5120	1B ND HtX dischargeTemperature to NC CL	ND	19-Temperature Sensor	Aux Bldg	750+9	733	LL-51				Containment Integrity
1ND-1B	RHR Pump Hotleg Suction Isolation	ND	08-MOV/SOV	Rx Bldg	745	B-C Lower Containment	Between B & C SG	X			DH
1ND-2AC	RHR Pump Hotleg Suction Isolation	ND	08-MOV/SOV	Rx Bldg	745	B-C VL Fan Rm	B-C VL Fan Rm	X			DH
1ND-4B	RHR FWST Suction Isolation	ND	08-MOV/SOV	Aux Bldg	695	695 Pipechase	FF-53	X			DH, NC Inventory, Reactivity
1ND-15B	ND HtX Discharge X-tie Isol	ND	08-MOV/SOV	Aux Bldg	733+8	733	LL-52	X	X (EC-9997)		DH, NC Inventory, Reactivity
1ND-14	ND 1B HtX Discharge Flow Control	ND	07-AOV	Aux Bldg	733+6	733	LL-52	X	X (EC-77860)		DH, NC Inventory, Reactivity
1ND-29	ND 1A HtX Discharge Flow Control	ND	07-AOV	Aux Bldg	733+4	732	LL-52	X	X (EC-77860)		DH, NC Inventory, Reactivity
1NV-222B	UNIT 1 NV PUMP SUCTION FROM FWST ISOL	NI	08-MOV/SOV	Aux Bldg	716+2	603	JJ-52	X			DH, NC Inventory, Reactivity
1NDHX0003	1A RHR HtX	ND	21-Tanks/HtXs	Aux Bldg	750	732	LL-52	X			DH, NC Inventory, Reactivity
1NDHX0004	1B RHR HtX	ND	21-Tanks/HtXs	Aux Bldg	750	733	LL-52	X			DH, NC Inventory, Reactivity

Equipment #	Description	System	Class of Equipment	Building	Elev.	Room #	Column-Grid	Listed on IPEEE List	Major New/ Replacement Equipment	Prior IPEEE Discrepancy/ Enhancement	Safety Function
1NDPU0001	1A RHR Pump	ND	06-Vertical Pump	Aux Bldg	695	501	GG-54	X			NC-Press, DH, NC Inventory, Reactivity
1NDPU0002	1B RHR Pump	ND	06-Vertical Pump	Aux Bldg	695	500	FF-54	X			NC-Press, DH, NC Inventory, Reactivity
1NIPU0009	1A Med-Head NI Pump	NI	05-Horizontal Pump	Aux Bldg	716	628	HH-54	X			NC Inventory, Reactivity
1NIPU0010	1B Med-Head NI Pump	NI	05-Horizontal Pump	Aux Bldg	716	626	GG-54	X			NC Inventory, Reactivity
1NI-115B	Med-Head NI Pump Minflow Isolation	NI	08-MOV/SOV	Aux Bldg	716	628	HH-54	X	X (EC-9996)		DH, NC Inventory, Reactivity
1NI-144B	Med-Head NI Pump Minflow Isolation	NI	08-MOV/SOV	Aux Bldg	716	628	GG-54	X	X (EC-9994)		DH, NC Inventory, Reactivity
1NI-178B	B train ND to Coldleg Isol.	NI	08-MOV/SOV	Aux Bldg	733+7	730	HH-52	X			NC-Press, DH, NC Inventory, Reactivity
1NI-185A	ND/NS Pump Containment Sump Supply Isol	NI	08-MOV/SOV	Aux Bldg	716	602E / Rathole	FF-53	X			Various
1NI-430A	N2 Assured Supply to 1NC-34A PORV	NI	08-MOV/SOV	Rx Bldg	760	1A CLA Room		X			NC-Press
1NI-431B	N2 Assured Supply to 1NC-32B PORV	NI	08-MOV/SOV	Rx Bldg	760	1B CLA Room		X			NC-Press
1NSHX0003	1A NS HtX	NS	21-Tanks/HtXs	Aux Bldg	733	732	LL-50	X			Containment Integrity
1NSHX0004	1B NS HtX	NS	21-Tanks/HtXs	Aux Bldg	733	733	LL-50	X			Containment Integrity
1NSPU0001	1A Containment Spray Pump	NS	06-Vertical Pump	Aux Bldg	733	502	GG-54	X			Containment Integrity
1NVTK0011	CVCS Volume Control Tank	NV	21-Tanks/HtXs	Aux Bldg	733	728	KK-50	x			NC Inventory, Reactivity
1NV-141A	Hi-Head NV pump VCT Suction isolation	NV	08-MOV/SOV	Aux Bldg	733	730	JJ-50	X			NC Inventory, Reactivity
1NV-238	Charging flow control	NV	07-AOV	Aux Bldg	716	629	JJ-54	X			NC Inventory, Reactivity
1NVPU0015	1A Hi-Head NV Pump	NV	05-Horizontal Pump	Aux Bldg	716	627	HH-54	X			NC Inventory, Reactivity
1RNPU0007	1A RN STRAINER BACKWASH PUMP	RN	05-Horizontal Pump	Aux Bldg	716	600/RN Strainer Rm	BB-52		X - new (EC102477)		Various

Equipment #	Description	System	Class of Equipment	Building	Elev.	Room #	Column-Grid	Listed on IPEEE List	Major New/ Replacement Equipment	Prior IPEEE Discrepancy/ Enhancement	Safety Function
1RNPU0008	1B RN STRAINER BACKWASH PUMP	RN	05-Horizontal Pump	Aux Bldg	716	601/RN Strainer Rm	BB-52		X - new (EC102478)		Various
1RNST0001	1A RN Pump Suction Strainer	RN	00-other	Aux Bldg	716	600/RN Strainer Rm	AA-50	X	X -replaced (MD102029, EC 99729)		Various
1RNST0002	1B RN Pump Suction Strainer	RN	00-other	Aux Bldg	716	601/RN Strainer Rm	AA-60	X	X -replaced (MD101864, EC 99729)		Various
1RN-21A	1A RN Strainer Auto Backwash Valve	RN	07-AOV	Aux Bldg	716+4	600/RN Strainer Rm	BB-52	X	X - new valve,actuator controls various ECs		Various
0RN-7A	1A/2A RN Pump SNSWP Suction Isol	RN	08-MOV/SOV	Aux Bldg	716+3	601	BB-63	X			Various
0RN-149A	1A/2A RN Essential Header SNSWP Return	RN	08-MOV/SOV	Aux Bldg	716+4	647W /Rathole	FF-59	X			Various
1SM-1AB	Main Steam Isolation Valve 1D SG	SM	07-AOV	Outer Doghouse	807+3	Outer Doghouse	FF-43	X	X -controls upgraded (NSM-12563)		NC pressure, Reactivity
1SM-3AB	Main Steam Isolation Valve 1C SG	SM	07-AOV	Inner Doghouse	767+30	Inner Doghouse	FF-53	X	X -controls upgraded (NSM-12563)		NC pressure, Reactivity
1SV-19	1A SG Main Steam PORV	SM	07-AOV	Outer Doghouse	807+3	Outer Doghouse	FF-43	X			NC pressure, Reactivity
1SV-13	1B SG Main Steam PORV	SM	07-AOV	Inner Doghouse	767+30	Inner Doghouse	FF-53	X		X -grating in contact w/valve	NC pressure, Reactivity
1VC-1A	VC Otsd Air Intake Isol from Unit 1	VC	08-MOV/SOV	Aux Bldg	767	926	BB-50	X			Various
1VI-AC-11	RN Strainer Backwash Assured Air Supply (2RN-21A)	VI	21-Tanks/HtXs	Aux Bldg	733	701C	CC-52		X - new component (EC-101543)		Various
1WL-322B	Containment Ventilation Otbrd CIV to VUCDT	WL	08-MOV/SOV	Aux Bldg	716+11	600/MDCAP Rm	CC-52	X			Containment Integrity
0VC-DO-0001 (CR-OAD-1)	Control Room Outside Press Fan Supply	VC	07-AOV	Aux Bldg	767	Control Rm Ventilation Rm	FF-56	X			Various
0VCFL0011 (CR-OAPFT-1)	Control Room Filter Package Fan A	VC	09-Fan	Aux Bldg	767	Control Rm Ventilation Rm	DD-54	X			Various
0YC-CH-0005 (CRA-C-1)	Control Room Area Chiller-1	VC/YC	11-Chiller	Aux Bldg	767	Control Rm Ventilation Rm	FF-56	X	X -controls upgrade (MD500739)		Various
0VCAH0001 (CRA-AHU-1)	A' TrainControl Room AHU-1	VC	10-AHU	Aux Bldg	767	Control Rm Ventilation Rm	EE-54	X			Various

Equipment #	Description	System	Class of Equipment	Building	Elev.	Room #	Column-Grid	Listed on IPEEE List	Major New/ Replacement Equipment	Prior IPEEE Discrepancy/ Enhancement	Safety Function
1EPQ-BC-EDGA	1A EDG Battery Charger (1EPQBCEDGA)	EPQ	16-Battery Charger/Inverter	EDG Bldg	736.5	1A EDG Rm		X	X -replaced (NSM-12482/ EC75135)		Various
1EPQ-BA-EDGA	1A EDG Battery (1EPQBA024)	EPQ	15-Battery Rack	EDG Bldg	736.5	1A EDG Rm		X			Various
1EPQ-BC-EDGB	1B EDG Battery Charger (1EPQBCEDGB)	EPQ	16-Battery Charger/Inverter	EDG Bldg	736.5	1B EDG Rm		X	X -replaced (NSM-12482/ EC75136)		Various
1EPQ-BA-EDGB	1B EDG Battery (1EPQBA024)	EPQ	15-Battery Rack	EDG Bldg	736.5	1B EDG Rm		X		X - missing spacers	Various
1EPE-MX-EMXE	1DG1A 600 VAC MCC (1EMXE)	EDG	01-Motor Control Centers/Wall Mounted Contactors	EDG Bldg	736.5	1A EDG Rm		x			Various
1ETB	4.16 kV Essential Power for	EPC	03-Med Voltage Metal Clad SWGR	Aux Bldg	733	705	AA-50	X			Various
1-EPE-TF-ELXA	1ELX A 4.16 KV/600 VAC Transformer	EPE	04-Transformer	Aux Bldg	750	803	AA-50	X			Various
1-EPE-TF-ELXC	1ELXC 4.16 KV/600 VAC Transformer	EPE	04-Transformer	Aux Bldg	750	803	AA-50	X			Various
1-EPE-TF-ELXB	1ELXB 4.16 KV/600 VAC Transformer	EPE	04-Transformer	Aux Bldg	733	705	AA-50	X			Various
1EMXA	600 VAC Essential MCC	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	750	808	FF-55	X			Various
1EMXA-1	600 VAC Essential MCC	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	750	808	FF-55	X			Various
1EMXB	600 VAC Essential MCC	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	733	722	FF-55	X		X -contact w/adjacent MCC	Various
1EMXB-1	600 VAC Essential MCC	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	733	722	FF-55	X		X -contact w/adjacent MCC	Various

Equipment #	Description	System	Class of Equipment	Building	Elev.	Room #	Column-Grid	Listed on IPEEE List	Major New/ Replacement Equipment	Prior IPEEE Discrepancy/ Enhancement	Safety Function
1-IPE-CA-9010	SSPS Cabinet 'A' Output & Logic cabinet	IPE	18-Instrument Rack	Control Complex	767	Control Rm	CC-54	X			Various
1-IPE-CA-9020	SSPS Cabinet 'B' Output & Logic cabinet	IPE	18-Instrument Rack	Control Complex	767	Control Rm	CC-54	X			Various
1EPG-BI-EVIA	Vital Battery Inverter	EPG	16-Battery Charger/Inverter	Control Complex	733	701	CC-56	X	X - replaced (MG-12522)		Various
1EPG-BI-EVIB	Vital Battery Inverter	EPG	16-Battery Charger/Inverter	Control Complex	733	701	CC-56	X	X - replaced (MG-22522)		Various
1EPG-BI-EVIC	Vital Battery Inverter	EPG	16-Battery Charger/Inverter	Control Complex	733	701	CC-56	X	X - replaced (MG-22522)		Various
1EPG-BI-EVID	Vital Battery Inverter	EPG	16-Battery Charger/Inverter	Control Complex	733	701	CC-56	X	X - replaced (MG-22522)		Various
1EVDA	Vital Panel 125VDC Breaker Panel	EPG	02-Low Voltage SWGR and Breaker Panels	Control Complex	733	701	CC-56	X			Various
1EVDB	Vital Panel 125VDC Breaker Panel	EPG	02-Low Voltage SWGR and Breaker Panels	Control Complex	733	701	CC-56	X			Various
1EVDC	Vital Panel 125VDC Breaker Panel	EPG	02-Low Voltage SWGR and Breaker Panels	Control Complex	733	701	CC-56	X			Various
1EVDD	Vital Panel 125VDC Breaker Panel	EPG	02-Low Voltage SWGR and Breaker Panels	Control Complex	733	701	CC-56	X			Various
EVDA	125VDC Distribution Center	EPL	14-Distribution Panels and Automatic Transfer Switches	Control Complex	733	701	CC-56	X			Various
EVDB	125VDC Distribution Center	EPL	14-Distribution Panels and Automatic Transfer Switches	Control Complex	733	701	CC-56	X			Various
0-EPL-BA-EVCA	Vital Battery	EPL	15-Battery Rack	Control Complex	733	707	CC-56	X	X - replaced (NSM-52483 / EC-64786)		Various
0-EPL-BA-EVCB	Vital Battery	EPL	15-Battery Rack	Control Complex	733	708	CC-56	X	X - replaced (NSM-52484 / EC-65056)		Various
0-EPL-BC-EVCA	Vital Battery Charger	EPL	16-Battery Charger/Inverter	Control Complex	733	701	CC-54	X	X - replaced (NSM-52488 / EC-65972)		Various
0-EPL-BC-EVCB	Vital Battery Charger	EPL	16-Battery Charger/Inverter	Control Complex	733	701	CC-56	X	X - replaced (NSM-52489 / EC-66301)		Various

ATTACHMENT 3 - McGuire Unit 1 SWEL-2 Base-2 List and Rapid Drain Down List

Unit 1 SWEL-2 "Base List"

Equipment #	Description	System	Class of Equipment	Bldg	Elev.	Room #	Column-Grid	Function
1KFPU0001	1A KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52	SFP Cooling
1KFPU0002	1B KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52	SFP Cooling
1KFHX003	1A KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52	SFP Cooling
1KFHX004	1B KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52	SFP Cooling
1VAAH0030	1A KF Pump AHU	VA	10-AHU	Aux Bldg	750	816	PP-52	SFP Cooling
1VAAH0031	1B KF Pump AHU	VA	10-AHU	Aux Bldg	750	816	PP-52	SFP Cooling
1ETA-13	1A KF Pump Breaker	EPC	03-Med Voltage Metal Clad SWGR	Aux Bldg	750	803	AA-50	SFP Cooling
1ETB-13	1B KF Pump Breaker	EPC	03-Med Voltage Metal Clad SWGR	Aux Bldg	733	705	AA-50	SFP Cooling
1RN-140A	A KF Pump Ess AHU Sup Isol	RN	07-AOV	Aux Bldg	750	816	PP-52	SFP Cooling
1EMXA-F3D	1A KF Pump Motor AHU Motor	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	750	808	FF-55	SFP Cooling
1EMXB-4C	1B KF Pump Motor AHU Motor	EPE	01-Motor Control Centers/Wall Mounted Contactors	Aux Bldg	750	722	FF-55	SFP Cooling
1RN-240B	1B KF Pump Ess AHU Sup Isol	RN	07-AOV	Aux Bldg	750	816	PP-52	SFP Cooling

Unit 1 SWEL-2 "Rapid Draindown List"

Equipment #	Description	System	Class of Equipment	Bldg	Elev.	Room #	Column-Grid	Function
1NV-842AC	SBMUP Suction Isolation	NV	08-MOV/SOV	Rx Bldg	725	Annulus	273°/61 R	SFP & Refueling Cavity Inventory
1NVAC0048	SBMUP Suction Pulsation Dampener (non-seismic SSC)	NV	00-Other-(pulsation dampener)	Rx Bldg	725	Annulus	320°/61 R	N/A
1NVPU0046	SBMUP (non-seismic SSC)	NV	05-Horizontal Pump	Rx Bldg	725	Annulus	320°/61 R	N/A
1NVAC0049	SBMUP Discharge Pulsation Dampener (non-seismic SSC)	NV	00-Other-(pulsation dampener)	Rx Bldg	725	Annulus	320°/61 R	N/A
1NVFL0047	SBMUP Discharge Filter (non-seismic SSC)	NV	00 - Other	Rx Bldg	725	Annulus	320°/61 R	N/A
1NV-849AC	SBMUP Discharge Isolation	NV	08-MOV/SOV	Rx Bldg	725	Annulus	273°/61 R	N/A
Reactor Cavity Seal	Refueling Reactor Cavity Seal	FW	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory
1FW-8, -10, -25, -26, -46, -47, -76, -75	Refuling Cavity Manual Drain Valves	FW	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory
Fuel Transfer Tube blind flange	Fuel Transfer Tube Blind Flange	KF	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory
Fuel Transfer Tube Weir Gate	Fuel Transfer Tube Weir Gate	KF	00 - Other	Rx Bldg	n/a	n/A	n/a	SFP & Refueling Cavity Inventory

ATTACHMENT 4

McGuire Unit 1 SWEL-2

Equipment #	Description	System	Class of Equipment	Bldg	Elev.	Room #	Column-Grid	Major New/ Replacement Equipment	Function
1NV-842AC	SBMUP Suction Isolation	NV	08-MOV/SOV	Rx Bldg	725	Annulus	273°/61 R	X - actuator replacement (EC-99992)	SFP & Refueling Cavity Inventory
1NVAC0048	SBMUP Suction Pulsation Dampener (non-seismic SSC)	NV	00-Other-(pulsation dampener)	Rx Bldg	725	Annulus	320°/61 R	X - replaced MGMM11916 (EC 37849)	N/A
1NVPU0046	SBMUP (non-seismic SSC)	NV	05-Horizontal Pump	Rx Bldg	725	Annulus	320°/61 R		N/A
1KFPU0001	1A KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52	X - replaced motor EC105550	SFP Cooling
1KFPU0002	1B KF Pump	KF	05-Horizontal Pump	Aux Bldg	750	816	PP-52		SFP Cooling
1KFHX0003	1A KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52		SFP Cooling
1KFHX0004	1B KF HtX	KF	21-Tanks/HtXs	Aux Bldg	750	816	PP-52		SFP Cooling
1VAAH0031	1B KF Pump AHU	VA	10-AHU	Aux Bldg	750	816	QQ-52		SFP Cooling