VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

March 5, 2025

10 CFR 50.55a

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

Serial No. 25-064
NRA/GDM R0
Docket Nos. 50-280/281
License Nos. DPR-32/37

VIRGINIA ELECTRIC AND POWER COMPANY
SURRY POWER STATION UNITS 1 AND 2
INSERVICE EXAMINATION, TESTING AND SERVICE LIFE MONITORING PROGRAM PLAN FOR SNUBBERS - SIXTH INSERVICE TESTING INTERVAL

Pursuant to 10 CFR 50.55a(f)(5)(i), and in accordance with 10 CFR 50.55a(f)(7), Virginia Electric and Power Company (Dominion Energy Virginia) is submitting the Surry Power Station (SPS) Units 1 and 2 "Inservice Examination, Testing and Service Life Monitoring Program Plan for Snubbers" for the sixth inservice testing (IST) interval for which the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance of Nuclear Power Plants (OM Code), 2020 Edition, is applicable. The SPS Units 1 and 2 sixth IST interval for snubbers began December 12, 2024. The "Inservice Examination, Testing and Service Life Monitoring Program Plan for Snubbers" is provided in the attachment.

If you have any questions or require additional information, please contact Mr. Daniel P. Johnson at (804) 273-2381.

Respectfully,

James E. Holloway
Vice President – Nuclear Engineering and Fleet Support

Commitments contained in this letter: None

Attachment: Surry Power Station Units 1 and 2 Inservice Examination, Testing and Service Life Monitoring Program Plan for Snubbers, Sixth Inspection Interval

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Surry Power Station

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Attachment

SURRY POWER STATION UNITS 1 AND 2

INSERVICE EXAMINATION, TESTING AND SERVICE LIFE MONITORING PROGRAM PLAN FOR SNUBBERS

SIXTH INSPECTION INTERVAL

Virginia Electric and Power Company
(Dominion Energy Virginia)

VIRGINIA ELECTRIC AND POWER COMPANY
(DOMINION)

SURRY POWER STATION

UNITS 1 and 2

INSERVICE EXAMINATION, TESTING AND SERVICE LIFE MONITORING PROGRAM PLAN FOR SNUBBERS

SIXTH INSPECTION INTERVAL

December 12, 2024 to May 9, 2036

REVISION 0

UNIT 1 COMMERICIAL OPERATION: DECEMBER 22, 1972

UNIT 2 COMMERICIAL OPERATION: MAY 1, 1973

ADDRESSES:

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PLAN: SNUB PROG PLAN INTERVAL 6

INSERVICE EXAMINATION, TESTING AND SERVICE LIFE MONITORING PROGRAM PLAN FOR SNUBBERS

Table of Contents

1.0 INTRODUCTION

1.1. History

This Examination, Testing and Service Life Monitoring Program Plan for Snubbers is applicable to the Surry Power Station Units 1 and 2 which received the construction permit on June 25, 1968. Unit 1 began commercial operation on December 22, 1972, and Unit 2 began commercial operation on May 1, 1973. Surry Power Station Units 1 and 2 are Westinghouse Electric Corp. Nuclear Steam System Pressurized Water Reactors located in Surry County, Virginia.

The snubber visual examinations and functional testing were originally included as part of the Surry Units 1 and 2, ASME Section XI Inservice Inspection (ISI) Programs. For the fourth ISI Interval of the ASME Section XI ISI Programs, the requirements were based on the ASME Boiler and Pressure Vessel (BPV) Code, Section XI, 1998 Edition, through the 2000 Addenda. As requested by Dominion in Relief Requests CS-001, the NRC authorized use of ASME OM Code, ISTD, for Interval 4 snubber visual examinations and functional testing, rather than the requirements contained in ASME Section XI, Articles IWF-5200 and IWF-5300. The fourth ISI Intervals for Surry Units 1 and 2, for snubber visual examinations and functional testing ended on December 13, 2013, and May 9, 2014, respectively. The schedule for subsequent 10-year updates to the Surry snubber program will coincide with the schedule for 10-year updates to the Surry ISI program.

The Surry Technical Specifications (TS) were revised to reference the "Inservice Examination, Testing and Service Life Monitoring Program for Snubbers" in the newly added Section TS 6.4.T of the same name. The proposed TS changes were transmitted to the NRC via letters dated May 13, 2013 (Serial No. 13-271) and September 9, 2013 (Serial No. 13- 271A). The TS changes were approved by the NRC via letter titled 'Surry Power Station, Units 1 and 2 - Issuance of Amendment for the Technical Specifications Changes Related to Snubber Surveillance requirements (TAC NOS. MF1872 and MF1873)" dated April 24, 2014.

Surry Units 1 and 2 ISI Interval 5 employed the requirements in the 2004 Edition of the ASME Section Xl Code. 10 CFR 50.55a(b)(3)(v)(A) allowed licensees to use the ASME OM Code Subsection ISTD rather than the requirements for snubbers in the editions and addenda up to the 2005 Addenda of the ASME B&PV Code, Section Xl, Articles IWF-5200(a) and (b) and IWF-5300(a) and (b), by making appropriate changes to their TS or licensee-controlled documents. 10 CFR 50.55a(b)(3)(v)(A) also states that preservice and inservice examinations must be performed using the VT-3 visual examination method described in Article IWA-2213 for Interval 5.

Snubbers at Surry Units 1 and 2 were examined and tested to the requirements of the "Surry Units 1 and 2 Inservice Examination, Testing, and Service Life Monitoring Program Plans for Snubbers" during Interval 5. The program plans for snubbers met the requirements of ASME OM Code, Subsection ISTD.

1.2. Purpose

To provide requirements for the performance and administration of assessing the operational readiness of those dynamic restraints (Snubbers) whose specific functions are required to perform one of the following functions:

- Shutdown the reactor to the safe shutdown condition
- Maintain the reactor in the safe shutdown condition
- Mitigate the consequences of an accident
- or to ensure the integrity of the reactor coolant pressure boundary

Snubbers excluded from this program are those installed on non-safety-related systems and then only if their failure or failure of the system on which they are installed have no adverse effect on any safety-related system.

1.3. Scope

The program plan was prepared to meet the requirements of the following subsections of the American Society of Mechanical Engineers (ASME) OM Code 2020 Edition, as identified in 10CFR50.55a(a)(1)(iv)(C)(3) issued in Federal Register issue 87 FR 65148, Oct. 27, 2022.

- Subsection ISTA, "General Requirements" contains the requirements directly applicable to inservice examination and testing including the Owner's Responsibility and Records Requirements.
- Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants" ISTD establishes preservice and inservice examination and testing, and the service life monitoring of Dynamic Restraints (Snubbers) in light-water reactor nuclear power plants. The snubbers covered in this program are required to support the systems and components that are required in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, mitigating the consequences of an accident or to ensure the integrity of the reactor coolant pressure boundary.

The "INSERVICE EXAMINATION, TESTING AND SERVICE LIFE MONITORING PROGRAM PLAN FOR SNUBBERS" adheres to the requirements of ASME OM Code, Section ISTD, 2020 Edition, as required by 10CFR50.55a(f)(4)(ii).

1.4. Discussion

In order to ensure the required functionality of all safety-related snubbers during a seismic or other events initiating dynamic loads, the examination, testing, and the service life monitoring of these snubbers shall be implemented and performed in accordance with the written test and examination instructions and procedures as required by ISTA-1500(d).

Each snubber, in a parallel or multiple installation, is identified with a suffix as (A) or (B) and counted separately to determine the snubber Defined Test Plan Group (DTPG) population.

The examination boundaries shall include the snubber assembly from pin-to-pin, inclusive. Coordination with the ISI program owner will be required to complete the examination requirements for piping and structural attachments (integral and nonintegral attachments) for snubbers within the ISI program.

1.5. Code Cases

Code Case OMN-13, Revision 3, Performance Based Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants, is implemented for the sixth interval. This Code Case has been approved for use in RG 1.192, Revision 5. As of July 1, 2022, the Code Case is applicable up to and including the 2020 edition of the ASME OM Code. This applicability index is published, and updated periodically, on the ASME OM Codes and Standards website.

Code Case OMN-31, Alterative to Allow Extension of ISTA-3120 Inservice Examination and Test Intervals From 10 Years to 12 Years, is implemented for the sixth snubber interval. This Code Case is conditionally approved for use in RG 1.192, Revision 5. This Code Case is approved for use as long as the Code of Record is the 2017 or later editions of the ASME OM Code and the Code Case must be implemented at the beginning of the interval. This Code Case, as conditioned, is applicable from the 2017 edition up to and including the 2020 edition of the ASME OM Code. This will allow interval 6 to be extended from May 9, 2034, to May 9, 2036.

2.0 EXAMINATION, TESTING AND SERVICE LIFE MONITORING REQUIREMENTS

2.1. Visual Examinations, Functional Testing, and Service Life requirements shall be performed to the requirements of the ASME OM Code, Subsection ISTD.

2.2. Functional Testing selection shall be performed in accordance with SPS Procedure 1/2-NPT-PR-001. Snubbers are grouped into DTPGs by design type, in accordance with ISTD-5250. Each DTPG will be tested using the 10% sample in ISTD-5300. The snubbers attached to the Steam Generators are listed as a separate DTPG (DTPG-1) as required by ISTD- 5253. Fractional sample sizes shall be rounded up to the next integer.

2.3. DTPGs at SPS include large bore hydraulic snubbers as DTPG 1 all Steam Generator snubbers, DTPG 2 for small bore hydraulic snubbers, and DTPG 3 for mechanical snubbers. The individual snubbers included in the each specific DTPG are listed in Attachments 10.1, 10.2 and 10.3 of this plan.

2.4. The Functional Test acceptance criteria are specified in the following SPS Procedures. Mechanical snubbers are specified in 1/2-NPT-PR-004; small bore hydraulic snubbers are specified in 1/2-NPT-PR-005; and large bore hydraulic snubber is specified in 1/2-NPT-PR-006.

2.5. The service life of all snubbers shall be monitored, and snubbers replaced, reconditioned or evaluated in accordance with ISTD-6200 to ensure that the service life is not exceeded between surveillance inspections. The replacement or reconditioning shall be documented, and records retained in accordance with Surry procedures.

3.0 EXAMINATION and TESTING METHODS

3.1. Visual Examinations shall be performed by qualified individuals as specified in Surry written procedures. Visual Examinations and Functional Testing shall be performed in accordance with specified Surry written procedures to verify the requirements of ISTD as satisfied.

4.0 EXAMINATION and TESTING FREQUENCY

4.1. Visual Examinations and Functional Testing shall be performed at the frequency specified in ISTD.

4.2. Snubbers at Surry are visual examined as one group with the examination frequency in accordance with Code Case OMN-13, although they are classified as accessible or inaccessible. Each snubber identified in this Snubber Program Plan shall be visually examined at least once every 10-years to meet the requirements of OMN-13.

4.3. Visual Examinations shall be performed prior to conducting any maintenance, stroking, or testing and prior to removal, for any reason, whenever new snubbers are installed, reinstallation of existing or swapped snubbers that were functionally tested, or after repairs, replacements, or modifications.

4.4. Functional Testing shall be conducted once every fuel cycle and shall begin no earlier than 92 days before a scheduled refueling outage. All DTPG testing shall be completed prior to completion of that refueling outage.

4.5. The service life for each installed snubber identified in this Snubber Program Plan shall be re-evaluated for continued acceptability at least once each fuel cycle and adjusted where applicable.

5.0 SERVICE LIFE MONITORING

5.1. The initial service life, or Maximum Service Life for a safety-related snubber, shall be predicted based on recommendations from the manufacturer or from available design reviews.

5.2. The Expected Service life of a safety-related snubber is determined by a variety of factors, such as the environmental conditions (heat, humidity, radiation levels, vibration) at the installed location.

5.3. Expected Service Life of safety-related snubbers is to be maintained and tracked using the snubber database.

5.4. The Remaining Service Life for each location where a safety-related snubber is installed shall be reviewed at least once per fuel cycle to ensure the Expected Service Life is not exceeded.

6.0 EXAMINATION, TESTING AND SERVICE LIFE MONITORING EVAUATION

6.1. Design and operating information necessary for the performance or the requirements of the Snubber Program shall be available to the Snubber Coordinator.

6.2. Snubbers that do not appear to conform to the Visual Examination requirements of ISTD-4230 shall be reported for evaluation to determine the cause unacceptability and appropriate corrective actions.

6.3. Snubbers that do not appear to conform to the visual examination acceptance requirements may be functionally tested to determine if the snubber would have performed its intended function. Snubbers that are later confirmed as operable as a result of functional testing may be declared operable for the purpose of establishing the next visual inspection interval, providing that the unacceptable condition did not affect operational readiness in accordance with ISTD-4240.

6.4. Snubbers determined to be unacceptable based on the visual examination acceptance criteria, at any time during the interval, shall be counted in determining the subsequent examination interval in accordance with OMN-13 and Table ISTD-4252-1.

6.5. Snubbers that do not meet the operability testing acceptance criteria in ISTD-5210 shall be evaluated to determine the cause of the failure and appropriate corrective action taken.

6.6. The initial service life of a snubber is evaluated using manufacturing input and engineering information gained through consideration of the snubber actual and expected service conditions and inservice functional test results in accordance with ISTD-6000.

7.0 REPAIR, REPLACEMENT, AND MODIFICATION REQUIREMENTS

7.1. Repairs, Replacements and Modifications performed on snubbers under this program shall conform, as applicable, to the requirements specified within the ASME Code, Section XI, IWA-4000, as specified in the Surry Inservice Inspection Program.

8.0 SCHEDULING

8.1. The Visual Examinations, Functional Testing schedules, and Service life Replacements shall be established, tracked, and maintained in accordance with ISTD by the Snubber Coordinator.

8.2. The Snubber Coordinator shall identify, and track expanded or additional testing and/or examinations as required by ISTD.

9.0 REPORTS and RECORDS

9.1. Reports and records for the Visual Examinations and Functional Testing shall be maintained for all snubbers included within the Snubber Program.

9.2. Record of Visual examination plans and Functional Testing plans (entire population or DTPGs) shall be maintained for all snubbers included within the Snubber Program.

9.3. The Visual Examinations and Functional Testing reports shall include the name of the snubber manufacturer, the manufacturer's model, type, and serial numbers or other unique identification.

9.4. Applicable records and reports, as required, shall be maintained and shall include copy or summary of the manufacturer's acceptance test report, preservice test report, or current inservice test report, records for Repair and Replacements.

9.5. Records will be maintained of the service life of all hydraulic and mechanical snubbers listed in this program and shall include:

- Records of predicted service life of all snubbers and service life re-evaluations
- the date at which the service life commences or expires,
- basis for current service life, and
- associated installation and maintenance records,
- test, examination, and maintenance history (including any failure/degradation history)
- corrective actions required to address service life issues.

10.0 ATTACHMENTS

10.1. DTPG 1 - Large Bore Hydraulic Snubbers

10.2. DTPG 2 - Small Bore Hydraulic Snubbers

10.3. DTPG 3 - Mechanical Snubbers

UNIT 1 DTPG 1 – LARGE BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
1-RC-HSS-138	12.0	IC	1	1	SG A upper ring	RC	Paul Munroe	11448-FM-51G, H	N/A
1-RC-HSS-140	12.0	IC	1	1	SG A upper ring	RC	Paul Munroe	11448-FM-51G, H	N/A
1-RC-HSS-142	12.0	IC	1	1	SG B upper ring	RC	Paul Munroe	11448-FM-51G, H	N/A
1-RC-HSS-144	12.0	IC	1	1	SG B upper ring	RC	Paul Munroe	11448-FM-51G, H	N/A
1-RC-HSS-146	12.0	IC	1	1	SG C upper ring	RC	Paul Munroe	11448-FM-51G, H	N/A
1-RC-HSS-148	12.0	IC	1	1	SG C upper ring	RC	Paul Munroe	11448-FM-51G, H	N/A

UNIT 2 DTPG 1 - LARGE BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-RC-HSS-138	12.0	IC	1	1	SG A upper ring	RC	Paul Munroe	11548-FM-51G, H	N/A
2-RC-HSS-140	12.0	IC	1	1	SG A upper ring	RC	Paul Munroe	11548-FM-51G, H	N/A
2-RC-HSS-142	12.0	IC	1	1	SG B upper ring	RC	Paul Munroe	11548-FM-51G, H	N/A
2-RC-HSS-144	12.0	IC	1	1	SG B upper ring	RC	Paul Munroe	11548-FM-51G, H	N/A
2-RC-HSS-146	12.0	IC	1	1	SG C upper ring	RC	Paul Munroe	11548-FM-51G, H	N/A
2-RC-HSS-148	12.0	IC	1	1	SG C upper ring	RC	Paul Munroe	11548-FM-51G, H	N/A

UNIT 1 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
1-BD-HSS-002	1.5	IC	2	12	CTMT Annulus	BD	Grinnell	1122A1	4
1-BD-HSS-003	1.5	IC	2	12	CTMT Annulus	BD	Grinnell	1122A2	24
1-CC-HSS-330	2.5	OC	3	13	CC Line Aux Basement	CC	Grinnell	112G1	6
1-CC-HSS-331	2.5	OC	3	13	CC Line Aux Basement	CC	Grinnell	112G1	23
1-CC-HSS-340A	2.5	OC	3	13	CC Line Aux Basement	CC	Grinnell	112T3	14
1-CC-HSS-341	2.5	OC	3	13	CC Line Aux Basement	CC	Grinnell	112M2	26
1-CC-HSS-60A	1.5	OC	3	13	CC Line Aux Basement	CC	Grinnell	112G1	19
1-CH-HSS-301	1.5	OC	2	11	C CH-P Cubicle	CH	Grinnell	127G2	33
1-CH-HSS-302	1.5	OC	2	11	C CH-P Cubicle	CH	Grinnell	127G2	32
1-CS-HSS-001	1.5	OC	2	17	Valve Pit	CS	Grinnell	123J1	10
1-FW-HSS-001	2.5	IC	2	10	MF Line A	FW	Grinnell	100G1	3
1-FW-HSS-002	2.5	IC	2	10	MF Line A	FW	Grinnell	100G1	3
1-FW-HSS-003	2.5	IC	NC	10	MF Line A	FW	Grinnell	100G1	6
1-FW-HSS-004	2.5	IC	2	10	MF Line A	FW	Grinnell	100G1	6
1-FW-HSS-006	2.5	IC	2	10	MF Line A	FW	Grinnell	100G1	8
1-FW-HSS-008	2.5	IC	2	10	MF Line A	FW	Grinnell	100G1	11
1-FW-HSS-009	2.5	IC	2	10	MF Line A	FW	Grinnell	100G1	11
1-FW-HSS-010	4	IC	2	10	MF Line C	FW	Grinnell	102G1	3
1-FW-HSS-011	4	IC	2	10	MF Line C	FW	Grinnell	102G1	5
1-FW-HSS-012	4	IC	2	10	MF Line C	FW	Grinnell	102G1	5
1-FW-HSS-013	4	IC	2	10	MF Line B	FW	Grinnell	101G1	5
1-FW-HSS-014	4	IC	2	10	MF Line B	FW	Grinnell	101G1	5
1-FW-HSS-015	2.5	IC	2	10	MF Line B	FW	Grinnell	101G1	3
1-FW-HSS-016	2.5	IC	2	10	MF Line B	FW	Grinnell	101G1	3
1-FW-HSS-017	1.5	IC	2	10	MF Line B	FW	Grinnell	102G1	7

UNIT 1 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
1-FW-HSS-018	3.25	OC	2	11	Safeguards--MF-Line	FW	Grinnell	1018A3	30
1-FW-HSS-020	3.25	OC	NC	11	Safeguards--MF-Line	FW	Grinnell	1018A3	32
1-FW-HSS-021A	2.5	OC	NC	11	Safeguards--MF-Line	FW	Grinnell	1018A3	31
1-FW-HSS-021B	2.5	OC	NC	11	Safeguards--MF-Line	FW	Grinnell	1018A3	29
1-FW-HSS-022	3.25	OC	NC	11	AMF-Line--Safeguards	FW	Grinnell	1018A3	28
1-FW-HSS-141A	1.5	IC	2	14	Op Deck near Aux MOV	FW	Grinnell	118A2	19
1-FW-HSS-141B	1.5	IC	2	14	Op Deck near Aux MOV	FW	Grinnell	118A2	19
1-FW-HSS-142	1.5	IC	2	14	Op Deck near Aux MOV	FW	Grinnell	118A1	3
1-FW-HSS-143B	1.5	IC	2	14	Op Deck near Aux MOV	FW	Grinnell	118A1	4
1-MS-HSS-001A	5	OC	2	7	MS Line A	MS	Grinnell	103A1	17
1-MS-HSS-001B	5	OC	2	7	MS Line A	MS	Grinnell	103A1	15
1-MS-HSS-002A	5	IC	2	7	MS Line A	MS	Grinnell	100D1	2
1-MS-HSS-002B	5	IC	2	7	MS Line A	MS	Grinnell	100D1	2
1-MS-HSS-003A	3.25	IC	2	7	MS Line A	MS	Grinnell	100D1	4
1-MS-HSS-003B	3.25	IC	2	7	MS Line A	MS	Grinnell	100D1	4
1-MS-HSS-004A	3.25	IC	2	7	MS Line A	MS	Grinnell	100D1	4
1-MS-HSS-004B	3.25	IC	2	7	MS Line A	MS	Grinnell	100D1	4
1-MS-HSS-005A	2.5	IC	2	7	MS Line A	MS	Grinnell	100D1	6
1-MS-HSS-005B	2.5	IC	2	7	MS Line A	MS	Grinnell	100D1	6
1-MS-HSS-006A	2.5	IC	2	7	MS Line A	MS	Grinnell	100D1	6
1-MS-HSS-006B	2.5	IC	2	7	MS Line A	MS	Grinnell	100D1	6
1-MS-HSS-007	8	IC	2	4	MS Line A	MS	Grinnell	100D1	8
1-MS-HSS-008	8	IC	2	4	MS Line A	MS	Grinnell	100D1	8
1-MS-HSS-009	8	IC	2	4	MS Line C	MS	Grinnell	102D1	2
1-MS-HSS-010	8	IC	NC	4	MS Line C	MS	Grinnell	102D1	2

UNIT 1 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
1-MS-HSS-011	8	IC	NC	4	MS Line B	MS	Grinnell	101D1	3
1-MS-HSS-012	8	IC	2	4	MS Line B	MS	Grinnell	101D1	3
1-MS-HSS-013A	4	IC	2	7	MS Line B	MS	Grinnell	101D1	2
1-MS-HSS-014A	4	OC	2	7	MS Line C	MS	Grinnell	103A1	16
1-MS-HSS-014B	4	OC	2	7	MS Line C	MS	Grinnell	103A1	16
1-MS-HSS-021	4	OC	2	9	MS Line B	MS	Grinnell	103A1	32
1-MS-HSS-022	4	OC	2	9	MS Line B	MS	Grinnell	103A1	32
1-MS-HSS-023	4	OC	2	9	MS Line C	MS	Grinnell	103A1	31
1-MS-HSS-024	4	OC	2	9	MS Line C	MS	Grinnell	103A1	31
1-MS-HSS-025	4	OC	2	9	MS Line A	MS	Grinnell	103A1	30
1-MS-HSS-026	4	OC	2	9	MS Line A	MS	Grinnell	103A1	30
1-MS-HSS-027	6	OC	2	6	MS B Safeties - upper	MS	Grinnell	103A2	40
1-MS-HSS-028	6	OC	2	6	MS B Safeties - upper	MS	Grinnell	103A2	40
1-MS-HSS-029	6	OC	2	6	MS C Safeties - upper	MS	Grinnell	103A2	2
1-MS-HSS-030	6	OC	NC	6	MS C Safeties - upper	MS	Grinnell	103A2	2
1-MS-HSS-031	6	OC	NC	6	MS A Safeties - upper	MS	Grinnell	103A2	38
1-MS-HSS-032	6	OC	NC	6	MS A Safeties - upper	MS	Grinnell	103A2	38
1-MS-HSS-033A	6	OC	NC	6	MS B Safeties - lower	MS	Grinnell	103A2	41
1-MS-HSS-033B	6	OC	NC	6	MS B Safeties - lower	MS	Grinnell	103A2	41
1-MS-HSS-034A	6	OC	NC	6	MS C Safeties - lower	MS	Grinnell	103A2	1
1-MS-HSS-034B	6	OC	NC	6	MS C Safeties - lower	MS	Grinnell	103A2	1
1-MS-HSS-035A	6	OC	NC	6	MS A Safeties - lower	MS	Grinnell	103A2	39
1-MS-HSS-035B	6	OC	2	6	MS A Safeties - lower	MS	Grinnell	103A2	39
1-MS-HSS-036	1.5	OC	2	14	MS Line to TDAFP	MS	Grinnell	131A1	17
1-MS-HSS-037	1.5	OC	2	14	MS Line to TDAFP	MS	Grinnell	131A1	15

UNIT 1 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
1-MS-HSS-038	1.5	OC	2	14	MS Line to TDAFP	MS	Grinnell	131A1	14
1-MS-HSS-039	1.5	OC	2	14	MS Line to TDAFP	MS	Grinnell	131A1	14
1-RC-HSS-102	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	10
1-RC-HSS-103	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	13
1-RC-HSS-104	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	14
1-RC-HSS-105	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	22
1-RC-HSS-106	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	25
1-RC-HSS-107	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	27
1-RC-HSS-108	1.5	IC	1	15	Basement Overhead	RC	Grinnell	125A1	30
1-RC-HSS-110	1.5	IC	1	16	PRZR Cub	RC	Grinnell	124A1	2
1-RC-HSS-111	1.5	IC	NC	16	PRZR Cub	RC	Grinnell	124A1	17
1-RC-HSS-112	1.5	IC	NC	16	PRZR Cub	RC	Grinnell	124A1	16
1-RC-HSS-113	1.5	IC	NC	16	PRZR Cub	RC	Grinnell	124A2	22
1-RC-HSS-114	1.5	IC	NC	16	PRZR Cub	RC	Grinnell	124A2	21
1-RH-HSS-009	1.5	IC	2	12	RHR Pump B Discharge	RH	Grinnell	117A1	16
1-RH-HSS-010	1.5	IC	2	12	RHR Pump B Discharge	RH	Grinnell	117A1	16
1-RH-HSS-011	1.5	IC	1	12	RHR Pump B Discharge	RH	Grinnell	117A1	15
1-RH-HSS-012	1.5	IC	2	12	Under RHR Flat	RH	Grinnell	117A1	7
1-RH-HSS-013	1.5	IC	1	12	Under RHR Flat	RH	Grinnell	117A1	8
1-RH-HSS-014	1.5	IC	2	12	Under RHR Flat	RH	Grinnell	117A1	8
1-RH-HSS-015	1.5	IC	2	12	RHR HX B Discharge	RH	Grinnell	117A2	26
1-RH-HSS-019	1.5	IC	2	12	Under RHR Flat	RH	Grinnell	117A1	4
1-RH-HSS-020	1.5	IC	2	12	Under RHR Flat	RH	Grinnell	117A1	4
1-RH-HSS-021	1.5	IC	2	12	Basement near Accum C	RH	Grinnell	122A1	3
1-RH-HSS-023	1.5	IC	1	12	Basement near Accum C	RH	Grinnell	122A2	27

UNIT 1 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
1-RH-HSS-024	1.5	IC	NC	12	RHR Flat - on wall	RH	Grinnell	117A2	23
1-RH-HSS-025	1.5	IC	2	12	RHR Flat - on wall	RH	Grinnell	117A2	31
1-RH-HSS-026	1.5	IC	2	12	RHR Flat - on floor	RH	Grinnell	117A1	27
1-RH-HSS-027	1.5	IC	1	12	RHR Flat	RH	Grinnell	117A1	26
1-RH-HSS-028	1.5	IC	1	12	RHR Flat	RH	Grinnell	117A1	25
1-RH-HSS-029	1.5	IC	1	12	Near CTMT Sump	RH	Grinnell	122D1	27
1-RH-HSS-100	1.5	IC	2	12	Basement -- Annulus	RH	Grinnell	122A1	22
1-RH-HSS-101A	1.5	IC	2	12	Basement -- Annulus	RH	Grinnell	122A1	14
1-RH-HSS-101B	1.5	IC	2	12	Basement -- Annulus	RH	Grinnell	122A1	14
1-RH-HSS-102	1.5	IC	2	12	Basement -- Annulus	RH	Grinnell	122A1	6
1-RH-HSS-103	2.5	IC	2	12	RHR Loop Room A	RH	Grinnell	117A1	21
1-RH-HSS-104	2.5	IC	2	12	RHR Loop Room A	RH	Grinnell	117A1	21
1-RH-HSS-105	1.5	IC	1	12	Under RHR Flat	RH	Grinnell	117A1	22
1-SI-HSS-019A	5	IC	1	5	Accum Outlet A	SI	Grinnell	122L1	8
1-SI-HSS-019B	5	IC	1	5	Accum Outlet A	SI	Grinnell	122L1	8
1-SI-HSS-020	8	IC	1	5	Accum Outlet A	SI	Grinnell	122L1	7
1-SI-HSS-022A	5	IC	1	5	Accum Outlet A	SI	Grinnell	122D1	8
1-SI-HSS-022B	5	IC	1	5	Accum Outlet A	SI	Grinnell	122D1	8
1-SI-HSS-023	8	IC	1	5	Accum Outlet B	SI	Grinnell	122D1	7
1-SI-HSS-024A	4	IC	1	5	Accum B Overhead	SI	Grinnell	122D1	5
1-SI-HSS-024B	4	IC	1	5	Accum B Overhead	SI	Grinnell	122D1	5
1-SI-HSS-025	8	IC	2	5	Accum Outlet C	SI	Grinnell	122A2	34
1-SI-HSS-026	8	IC	2	5	Accum Outlet C	SI	Grinnell	122A2	35
1-SI-HSS-084	1.5	OC	2	17	Safeguard -- Basement	SI	Grinnell	127E1	3
1-SI-HSS-085	1.5	OC	2	17	Safeguard -- Basement	SI	Grinnell	127E2	3

UNIT 1 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	**SIZE [IN.]**	**IC or OC**	**Code Class**	**CAT**	**GENERAL LOCATION**	**SYSTEM**	**MANUFACTURER**	**MKS NUMBER**	**HANGER NUMBER**
1-SI-HSS-100	2.5	OC	1	17	Valve Pit	SI	Grinnell	127C2	10
1-SI-HSS-101	2.5	OC	1	17	Valve Pit	SI	Grinnell	127C2	10
1-SI-HSS-107	3.25	OC	1	17	Valve Pit	SI	Grinnell	127C2	17

Note 1: Code Class = NC is outside of the ASME Section XI boundary and within the ISTA-1100 requirements

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-BD-HSS-001	1.5	IC	2	19	Basement	BD	Grinnell	2122A8	6
2-BD-HSS-002	1.5	IC	2	21	Loop Room B	BD	Grinnell	2122A12	10
2-BD-HSS-004A	1.5	OC	2	20	Aux Basement	BD	Grinnell	2122A7	13
2-BD-HSS-004B	1.5	OC	2	20	Aux Basement	BD	Grinnell	2122A7	13
2-BD-HSS-005	1.5	IC	2	21	Loop Room A	BD	Grinnell	2122A8	27
2-BD-HSS-006A	1.5	IC	2	21	Loop Room A	BD	Grinnell	2122A8	26
2-BD-HSS-006B	1.5	IC	2	21	Loop Room A	BD	Grinnell	2122A8	26
2-BD-HSS-007A	1.5	OC	2	20	Aux Basement	BD	Grinnell	2122A11	14
2-BD-HSS-007B	1.5	OC	2	20	Aux Basement	BD	Grinnell	2122A11	14
2-BD-HSS-008A	1.5	OC	2	20	Aux Basement	BD	Grinnell	2122A9	15
2-BD-HSS-008B	1.5	OC	2	20	Aux Basement	BD	Grinnell	2122A9	15
2-CC-HSS-356A	2.5	OC	3	12	Aux Basement	CC	Grinnell	11448-MKS-112AH2	10
2-CC-HSS-356B	1.5	OC	3	20	Aux Basement	CC	Grinnell	11448-MKS-112AH2	10
2-CC-HSS-357	1.5	IC	3	15	CC Line CNTM Basement	CC	Grinnell	112AA1	32A
2-CC-HSS-358	2.5	IC	3	12	CC Line CNTM Near RHR Flat	CC	Grinnell	112S1	27A
2-CC-HSS-359	1.5	IC	3	15	CC Line CNTM Basement	CC	Grinnell	112S2	1
2-CC-HSS-361	1.5	IC	3	15	CC Line RHR Flat	CC	Grinnell	112S1	27
2-CH-HSS-303	1.5	OC	2	20	Charging Pump C Cubicle	CH	Grinnell	127G2	24
2-CH-HSS-304	1.5	OC	2	20	Charging Pump C Cubicle	CH	Grinnell	127G2	23
2-CH-HSS-305	1.5	IC	1	15	Basement Overhead	CH	Grinnell	CH-8	16
2-CH-HSS-306A	1.5	IC	1	15	Basement Overhead	CH	Grinnell	CH-8	5
2-CH-HSS-306B	1.5	IC	1	15	Basement Overhead	CH	Grinnell	CH-8	5
2-CH-HSS-307	1.5	IC	1	15	Basement Overhead	CH	Grinnell	CH-8	3A
2-FW-HSS-001	2.5	IC	2	12	MF Line A	FW	Grinnell	100G1	8
2-FW-HSS-002	2.5	IC	2	12	MF Line A	FW	Grinnell	100G1	8
2-FW-HSS-003	2.5	IC	2	12	MF Line A	FW	Grinnell	100G1	6

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-FW-HSS-004	2.5	IC	2	12	MF Line A	FW	Grinnell	100G1	6
2-FW-HSS-005	2.5	IC	2	12	MF Line A	FW	Grinnell	100G1	1
2-FW-HSS-006	2.5	IC	2	12	MF Line A	FW	Grinnell	100G1	1
2-FW-HSS-007	4	IC	2	9	MF Line B	FW	Grinnell	101G1	2
2-FW-HSS-008	4	IC	2	9	MF Line B	FW	Grinnell	101G1	2
2-FW-HSS-009	4	IC	2	9	MF Line C	FW	Grinnell	102G1	2
2-FW-HSS-010	4	IC	2	9	MF Line C	FW	Grinnell	102G1	2
2-FW-HSS-011	2.5	IC	2	12	MF Line C	FW	Grinnell	102G1	4
2-FW-HSS-012	2.5	IC	NC	12	MF Line OP Level	FW	Grinnell	102G1	4
2-FW-HSS-013	2.5	IC	NC	12	MF Line OP Level	FW	Grinnell	100G1	4
2-FW-HSS-014	2.5	OC	NC	11	Safeguards--MF-Line C	FW	Grinnell	2018A5	27
2-FW-HSS-015	3.25	OC	NC	11	Safeguards--MF-Line B	FW	Grinnell	2018A5	28
2-FW-HSS-016	3.25	OC	NC	11	Safeguards--MF-Line C	FW	Grinnell	2018A5	25
2-FW-HSS-017	3.25	OC	2	11	Safeguards--MF-Line A	FW	Grinnell	2018A5	26
2-FW-HSS-018	2.5	OC	2	11	Safeguards--MF-Line C	FW	Grinnell	2018A5	32
2-FW-HSS-140	1.5	IC	2	12	Aux Feed -- 47 ft. Elevation	FW	Grinnell	118A2	19
2-FW-HSS-141	1.5	IC	2	12	Aux Feed -- 47 ft. Elevation	FW	Grinnell	118A1	19
2-FW-HSS-142	1.5	IC	NC	12	Aux Feed -- 47 ft. Elevation	FW	Grinnell	118A1	3
2-FW-HSS-143	1.5	IC	NC	12	Aux Feed -- 47 ft. Elevation	FW	Grinnell	103A1	3
2-MS-HSS-001A	5	OC	2	7	MS Line A	MS	Grinnell	103A1	15
2-MS-HSS-001B	5	OC	2	7	MS Line A	MS	Grinnell	100D1	13
2-MS-HSS-002A	5	IC	2	8	MS Line A	MS	Grinnell	100D1	8
2-MS-HSS-002B	5	IC	2	8	MS Line A	MS	Grinnell	100D1	8
2-MS-HSS-003A	3.25	IC	2	8	MS Line A	MS	Grinnell	100D1	6
2-MS-HSS-003B	3.25	IC	2	8	MS Line A	MS	Grinnell	100D1	6
2-MS-HSS-004A	3.25	IC	2	8	MS Line A	MS	Grinnell	100D1	6

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-MS-HSS-004B	3.25	IC	2	8	MS Line A	MS	Grinnell	100D1	6
2-MS-HSS-005A	2.5	IC	2	8	MS Line A	MS	Grinnell	100D1	4
2-MS-HSS-005B	2.5	IC	2	8	MS Line A	MS	Grinnell	100D1	4
2-MS-HSS-006A	2.5	IC	2	8	MS Line A	MS	Grinnell	100D1	4
2-MS-HSS-006B	2.5	IC	2	8	MS Line A	MS	Grinnell	100D1	4
2-MS-HSS-007	6	IC	2	4	MS Line A	MS	Grinnell	100D1	2
2-MS-HSS-008	6	IC	2	4	MS Line A	MS	Grinnell	101D1	2
2-MS-HSS-009	8	IC	2	4	MS Line	MS	Grinnell	101D1	2
2-MS-HSS-010	8	IC	2	4	MS Line	MS	Grinnell	102D1	2
2-MS-HSS-011	8	IC	2	4	MS Line C	MS	Grinnell	102D1	3
2-MS-HSS-012	8	IC	NC	4	MS Line C	MS	Grinnell	102D1	3
2-MS-HSS-013A	4	IC	NC	8	MS Line C	MS	Grinnell	103A1	2
2-MS-HSS-014A	4	OC	NC	7	MS Line B	MS	Grinnell	103A1	14
2-MS-HSS-014B	4	OC	NC	7	MS Line B	MS	Grinnell	103A1	14
2-MS-HSS-015	5	OC	NC	7	MS Line C	MS	Grinnell	103A1	5
2-MS-HSS-016	5	OC	NC	7	MS Line C	MS	Grinnell	103A1	5
2-MS-HSS-017	5	OC	NC	7	MS Line B	MS	Grinnell	103A1	7
2-MS-HSS-018	5	OC	NC	7	MS Line B	MS	Grinnell	103A1	7
2-MS-HSS-019	5	OC	NC	7	MS Line A	MS	Grinnell	103A1	9
2-MS-HSS-020	5	OC	NC	7	MS Line A	MS	Grinnell	103A1	9
2-MS-HSS-021	4	OC	NC	7	MS Line A	MS	Grinnell	103A1	30
2-MS-HSS-022	4	OC	NC	7	MS Line A	MS	Grinnell	103A1	30
2-MS-HSS-023	4	OC	NC	7	MS Line B	MS	Grinnell	103A1	29
2-MS-HSS-024	4	OC	NC	7	MS Line B	MS	Grinnell	103A1	29
2-MS-HSS-025	4	OC	2	7	MS Line C	MS	Grinnell	103A1	28
2-MS-HSS-026	4	OC	2	7	MS Line C	MS	Grinnell	103A2	28

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-MS-HSS-027	6	OC	2	6	Safeguards -- MS A Safeties	MS	Grinnell	103A2	41
2-MS-HSS-028	6	OC	2	6	Safeguards -- MS A Safeties	MS	Grinnell	103A2	41
2-MS-HSS-029	6	OC	2	6	Safeguards -- MS B Safeties	MS	Grinnell	103A2	40
2-MS-HSS-030	6	OC	2	6	Safeguards -- MS B Safeties	MS	Grinnell	103A2	40
2-MS-HSS-031	6	OC	2	6	Safeguards -- MS C Safeties	MS	Grinnell	103A2	39
2-MS-HSS-032	6	OC	2	6	Safeguards -- MS C Safeties	MS	Grinnell	103A2	39
2-MS-HSS-033A	6	OC	2	6	Safeguards -- MS A Safeties	MS	Grinnell	103A2	38
2-MS-HSS-033B	6	OC	2	6	Safeguards -- MS A Safeties	MS	Grinnell	103A2	38
2-MS-HSS-034A	6	OC	2	6	Safeguards -- MS B Safeties	MS	Grinnell	103A2	37
2-MS-HSS-034B	6	OC	2	6	Safeguards -- MS B Safeties	MS	Grinnell	103A2	37
2-MS-HSS-035A	6	OC	2	6	Safeguards -- MS C Safeties	MS	Grinnell	103A2	36
2-MS-HSS-035B	6	OC	2	6	Safeguards -- MS C Safeties	MS	Grinnell	103A2	36
2-MS-HSS-036A	1.5	OC	NC	22	Safeguards -- TDAFP	MS	Grinnell	131A1	4B
2-MS-HSS-036B	1.5	OC	NC	22	Safeguards -- TDAFP	MS	Grinnell	131A1	3A
2-MS-HSS-040	2.5	OC	NC	11	MS Line B Bypass	MS	Grinnell	SHP-2	16A
2-MS-HSS-041	2.5	OC	NC	11	MS Line C Bypass	MS	Grinnell	SHP-3	15A
2-MS-HSS-042	2.5	OC	1	11	MS Line A Bypass	MS	Grinnell	SHP-1	17A
2-MS-HSS-051	1.5	OC	1	22	Safeguards -- TDAFP	MS	Grinnell	SHPD-1	4
2-RC-HSS-100	1.5	IC	1	16	Basement Overhead	RC	Grinnell	125A1	25
2-RC-HSS-101	1.5	IC	1	16	Basement Overhead	RC	Grinnell	125A1	14
2-RC-HSS-102	1.5	IC	1	16	PRT Room	RC	Grinnell	125A1	8
2-RC-HSS-103	1.5	IC	1	16	Basement Overhead	RC	Grinnell	125A1	13
2-RC-HSS-104	1.5	IC	1	16	Basement Overhead	RC	Grinnell	125A1	19
2-RC-HSS-105	1.5	IC	1	16	Basement Overhead	RC	Grinnell	125A1	20
2-RC-HSS-106	1.5	IC	1	21	PRT Room	RC	Grinnell	125A1	7
2-RC-HSS-107	1.5	IC	1	17	PRZR Cubicle	RC	Grinnell	125A1	2

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-RC-HSS-108	1.5	IC	NC	16	Basement Overhead	RC	Grinnell	125A1	22
2-RC-HSS-110	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A1	14
2-RC-HSS-112	3.25	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A1	8
2-RC-HSS-113	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A1	7
2-RC-HSS-114	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A2	114
2-RC-HSS-115	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A2	115
2-RC-HSS-116	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A1	4
2-RC-HSS-117	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A1	3
2-RC-HSS-118	3.25	IC	1	13	PRZR Cubicle	RC	Grinnell	124A1	2
2-RC-HSS-119	3.25	IC	1	13	PRZR Cubicle	RC	Grinnell	124A1	2
2-RC-HSS-184	1.5	IC	NC	16	Containment Basement	RC	Grinnell	125A1	24
2-RC-HSS-186	1.5	IC	NC	17	PRZR Cubicle	RC	Grinnell	124A1	19
2-RC-HSS-187	1.5	IC	NC	21	PRT Room	RC	Grinnell	124A2	1
2-RC-HSS-188A	2.5	IC	NC	13	PRZR Cubicle	RC	Grinnell	124A2	5
2-RC-HSS-188B	2.5	IC	NC	13	PRZR Cubicle	RC	Grinnell	124A2	5
2-RC-HSS-189A	4	IC	2	13	PRZR Cubicle	RC	Grinnell	124A1	20
2-RC-HSS-189B	4	IC	2	13	PRZR Cubicle	RC	Grinnell	124A1	20
2-RH-HSS-009	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	28
2-RH-HSS-010	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	28
2-RH-HSS-011	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	28
2-RH-HSS-012	1.5	IC	2	18	Under RHR Flat	RH	Grinnell	117A1	21
2-RH-HSS-013	1.5	IC	2	18	Under RHR Flat	RH	Grinnell	117A1	21
2-RH-HSS-014	1.5	IC	1	18	RHR Flat	RH	Grinnell	117A1	32B
2-RH-HSS-015	1.5	IC	1	18	RHR Flat	RH	Grinnell	117A1	8
2-RH-HSS-017	2.5	IC	1	14	Loop Room A	RH	Grinnell	117A1	15
2-RH-HSS-018	2.5	IC	1	14	Loop Room A	RH	Grinnell	117A1	15

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-RH-HSS-019	2.5	IC	2	14	Under RHR Flat	RH	Grinnell	117A1	17
2-RH-HSS-020	2.5	IC	2	14	Under RHR Flat	RH	Grinnell	117A1	17
2-RH-HSS-021	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	33
2-RH-HSS-022	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	11
2-RH-HSS-025	1.5	IC	2	19	Basement	RH	Grinnell	117B1	11
2-RH-HSS-026	1.5	IC	2	19	Basement	RH	Grinnell	117B1	12
2-RH-HSS-027	2.5	IC	2	19	Basement	RH	Grinnell	117B1	12
2-RH-HSS-028	1.5	IC	2	19	Basement	RH	Grinnell	117B1	28
2-RH-HSS-029	2.5	IC	2	19	Basement	RH	Grinnell	117B1	28
2-RH-HSS-030	1.5	IC	1	18	RHR Flat	RH	Grinnell	117A1	32A
2-RH-HSS-031	2.5	IC	NC	14	RHR Flat	RH	Grinnell	117A1	27A
2-RH-HSS-032	2.5	IC	NC	14	Loop Room A	RH	Grinnell	117A1	15A
2-RH-HSS-033A	1.5	IC	2	19	Basement	RH	Grinnell	117B1	22
2-RH-HSS-033B	1.5	IC	2	19	Basement	RH	Grinnell	117B1	22
2-RH-HSS-034	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	37
2-RH-HSS-035	2.5	IC	2	14	RHR Flat	RH	Grinnell	117A1	22A
2-RH-HSS-036A	1.5	IC	2	19	Basement	RH	Grinnell	117B1	10
2-RH-HSS-036B	1.5	IC	2	19	Basement	RH	Grinnell	117B1	10
2-RH-HSS-037	1.5	IC	2	19	Basement	RH	Grinnell	117B1	18A
2-RH-HSS-038	1.5	IC	2	18	RHR Flat	RH	Grinnell	117A1	38
2-RH-HSS-039	1.5	IC	1	18	RHR Flat	RH	Grinnell	117A1	29A
2-RH-HSS-040	2.5	IC	2	14	Basement	RH	Grinnell	117B1	10
2-RH-HSS-101	1.5	IC	2	19	Basement Annulus	RH	Grinnell	117B1	7
2-RH-HSS-102	1.5	IC	2	19	Basement Annulus	RH	Grinnell	117B1	15
2-RS-HSS-101	1.5	IC	2	21	RS HX C -- 10 ft. Elevation	RS	Grinnell	123G2	2
2-RS-HSS-102	1.5	IC	2	21	RS HX C -- 10 ft. Elevation	RS	Grinnell	123G2	2

UNIT 2 DTPG 2 - SMALL BORE HYDRAULIC SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE [IN.]	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-RS-HSS-103	1.5	IC	2	21	RS HX C -- 10 ft. Elevation	RS	Grinnell	123G1	103
2-RS-HSS-104	1.5	IC	2	21	RS HX C -- 10 ft. Elevation	RS	Grinnell	123G1	104
2-SI-HSS-001A	2.5	OC	2	12	Valve Pit	SI	Grinnell	127C2	13
2-SI-HSS-001B	2.5	OC	2	12	Valve Pit	SI	Grinnell	127C2	13
2-SI-HSS-100	2.5	OC	2	20	Valve Pit	SI	Grinnell	127C2	17
2-SI-HSS-101	2.5	OC	2	20	Valve Pit	SI	Grinnell	127C2	17
2-SI-HSS-103	1.5	OC	2	20	Valve Pit	SI	Grinnell	SI-6	6
2-SI-HSS-104A	2.5	OC	2	20	Valve Pit	SI	Grinnell	SI-5	1
2-SI-HSS-104B	2.5	OC	2	20	Valve Pit	SI	Grinnell	SI-4	1
2-SI-HSS-19A	5	IC	1	5	Accum Discharge C	SI	Grinnell	122A1	1
2-SI-HSS-19B	5	IC	1	5	Accum Discharge C	SI	Grinnell	122A1	1
2-SI-HSS-20	8	IC	1	5	Accum Discharge C	SI	Grinnell	122A1	2
2-SI-HSS-22A	5	IC	1	5	Accum Discharge B	SI	Grinnell	122D1	3
2-SI-HSS-22B	5	IC	1	5	Accum Discharge B	SI	Grinnell	122D1	3
2-SI-HSS-23	8	IC	1	5	Accum Discharge B	SI	Grinnell	122D1	4
2-SI-HSS-24	6	IC	1	5	Accum Discharge A	SI	Grinnell	122L1	5
2-SI-HSS-25	8	IC	1	5	Accum Discharge A	SI	Grinnell	122L1	2
2-SI-HSS-26	8	IC	1	5	Accum Discharge A	SI	Grinnell	122L1	3
2-SI-HSS-27	8	IC	1	5	Accum Discharge B	SI	Grinnell	122D1	5

Note 1: Code Class = NC is outside of the ASME Section XI boundary and within the ISTA-1100 requirements

UNIT 1 DTPG 3 – MECHANICAL SNUBBERS									
EQUIPMENT LOCATION NUMBER	**SIZE**	**IC or OC**	**Code Class**	**CAT**	**GENERAL LOCATION**	**SYSTEM**	**MANUFACTURER**	**MKS NUMBER**	**HANGER NUMBER**
1-BD-MSS-010	AD-71R	IC	2	24	Loop Room C	BD	dynA/Damp	1122A3	39
1-BD-MSS-011	AD-71R	IC	2	24	Loop Room A	BD	dynA/Damp	1122A1	41
1-BD-MSS-013	AD-71R	IC	2	24	Loop Room A	BD	dynA/Damp	1122A1	24
1-BD-MSS-014A	AD-71R	IC	2	24	Loop Room A	BD	dynA/Damp	1122A1	47
1-BD-MSS-014B	AD-71R	IC	2	24	Loop Room A	BD	dynA/Damp	1122A1	48
1-BD-MSS-015A	AD-71R	IC	2	23	RCP A Cubicle	BD	dynA/Damp	1122A1	49
1-BD-MSS-015B	AD-71R	IC	2	23	RCP A Cubicle	BD	dynA/Damp	1122A1	49
1-BD-MSS-018A	AD-71R	IC	2	24	Loop Room B	BD	dynA/Damp	1122A2	16
1-BD-MSS-021	AD-71R	IC	2	21	Loop Room C	BD	dynA/Damp	1122A3	8
1-BD-MSS-023	AD-501	OC	2	22	Aux Basement	BD	dynA/Damp	1122A4	20
1-BD-MSS-100	AD-71	IC	2	21	Loop Room B	BD	dynA/Damp	1122A2	32
1-MS-MSS-050	AD-151	OC	2	22	Near TDAFP	MS	dynA/Damp	131A1	9
1-MS-MSS-051A	AD-5501	OC	NC	18	Safeguards	MS	dynA/Damp	103A1	9
1-MS-MSS-051B	AD-5501	OC	NC	18	Safeguards	MS	dynA/Damp	103A1	9
1-MS-MSS-052A	AD-5501	OC	NC	18	Safeguards	MS	dynA/Damp	103A1	10
1-MS-MSS-052B	AD-5501	OC	NC	18	Safeguards	MS	dynA/Damp	103A1	10
1-MS-MSS-053A	AD-5501	OC	NC	18	Safeguards	MS	dynA/Damp	103A1	11
1-MS-MSS-053B	AD-5501	OC	NC	18	Safeguards	MS	dynA/Damp	103A1	11
1-MS-MSS-059A	AD-501	OC	2	20	Safeguards -- near PORV	MS	dynA/Damp	103A2	49
1-MS-MSS-059B	AD-501	OC	2	20	Safeguards -- near PORV	MS	dynA/Damp	103A2	49
1-MS-MSS-060A	AD-501	OC	2	20	Safeguards -- near PORV	MS	dynA/Damp	103A2	53
1-MS-MSS-060B	AD-501	OC	2	20	Safeguards -- near PORV	MS	dynA/Damp	103A2	53
1-MS-MSS-061A	AD-501	OC	2	20	Safeguards -- near PORV	MS	dynA/Damp	103A2	57
1-MS-MSS-061B	AD-501	OC	2	20	Safeguards -- near PORV	MS	dynA/Damp	103A2	57

UNIT 1 DTPG 3 – MECHANICAL SNUBBERS									
EQUIPMENT LOCATION NUMBER	**SIZE**	**IC or OC**	**Code Class**	**CAT**	**GENERAL LOCATION**	**SYSTEM**	**MANUFACTURER**	**MKS NUMBER**	**HANGER NUMBER**
1-RC-MSS-115A	AD-1601	IC	1	19	PRZR Cubicle	RC	dynA/Damp	124A2	23
1-RC-MSS-115B	AD-1601	IC	1	19	PRZR Cubicle	RC	dynA/Damp	124A2	23
1-RC-MSS-116A	AD-1601	IC	1	19	PRZR Cubicle	RC	dynA/Damp	124A1	18
1-RC-MSS-116B	AD-1601	IC	1	19	PRZR Cubicle	RC	dynA/Damp	124A1	18
1-RC-MSS-117A	AD-1601	IC	1	19	PRZR Cubicle	RC	dynA/Damp	124A1	7
1-RC-MSS-117B	AD-1601	IC	1	19	PRZR Cubicle	RC	dynA/Damp	124A1	7
1-RC-MSS-218	AD-151	IC	2	22	PRZR Cubicle	RC	dynA/Damp	124A1	9
1-RC-MSS-219	AD-71R	IC	2	22	PRZR Cubicle	RC	dynA/Damp	12846.51-PKS-2	PSSP028
1-RC-MSS-220	AD-71R	IC	2	22	PRZR Cubicle	RC	dynA/Damp	12846.51-PKS-2	PSSP035
1-RC-MSS-221	AD-501	IC	2	22	PRZR Cubicle	RC	dynA/Damp	12846.51-PKS-2	PSSP036
1-RC-MSS-222	AD-501	IC	2	22	PRZR Cubicle	RC	dynA/Damp	12846.51-PKS-2	PSSP037
1-RH-MSS-120A	AD-503	IC	2	21	Loop Room A	RH	dynA/Damp	117A1	2
1-RH-MSS-120B	AD-503	IC	2	21	Loop Room A	RH	dynA/Damp	117A1	2
1-RS-MSS-115A	AD-501	IC	2	21	18 ft. Annulus	RS	dynA/Damp	123R2	2
1-RS-MSS-115B	AD-501	IC	2	21	18 ft. Annulus	RS	dynA/Damp	123R2	2
1-RS-MSS-116A	AD-501	IC	2	21	18 ft. Annulus	RS	dynA/Damp	123R1	2
1-RS-MSS-116B	AD-501	IC	2	21	18 ft. Annulus	RS	dynA/Damp	123R1	2
1-RT-MSS-001A	AD-151	IC	NC	23	SG A Cubicle	RT	dynA/Damp	1122A15	15
1-RT-MSS-001B	AD-151	IC	NC	23	SG B Cubicle	RT	dynA/Damp	1122A18	12
1-RT-MSS-001C	AD-151	IC	NC	23	SG C Cubicle	RT	dynA/Damp	1122A21	13
1-RT-MSS-002A	AD-41	IC	NC	23	SG A Cubicle	RT	dynA/Damp	1122A15	14
1-RT-MSS-002B	AD-41	IC	NC	23	SG B Cubicle	RT	dynA/Damp	1122A18	11
1-RT-MSS-002C	AD-41	IC	NC	23	SG C Cubicle	RT	dynA/Damp	1122A21	12
1-RT-MSS-010C	AD-41	IC	NC	23	Loop Room C	RT	dynA/Damp	1122A21	6

UNIT 1 DTPG 3 – MECHANICAL SNUBBERS									
EQUIPMENT LOCATION NUMBER	**SIZE**	**IC or OC**	**Code Class**	**CAT**	**GENERAL LOCATION**	**SYSTEM**	**MANUFACTURER**	**MKS NUMBER**	**HANGER NUMBER**
1-RT-MSS-011A	AD-151	IC	2	23	Loop Room A	RT	dynA/Damp	1122A15	6
1-RT-MSS-012C	AD-41	IC	2	23	Loop Room C	RT	dynA/Damp	1122A21	4
1-RT-MSS-014C	AD-41	IC	2	23	Loop Room C	RT	dynA/Damp	1122A21	2
1-RT-MSS-023B	AD-71R	IC	2	23	Loop Room B	RT	dynA/Damp	1122A18	5
1-SW-MSS-002	AD-71R	OC	3	22	Machine Room No. 3	SW	dynA/Damp	1021A4	138

Note 1: Code Class = NC is outside of the ASME Section XI boundary and within the ISTA-1100 requirements

UNIT 2 DTPG 3 – MECHANICAL SNUBBERS									
EQUIPMENT LOCATION NUMBER	SIZE	IC or OC	Code Class	CAT	GENERAL LOCATION	SYSTEM	MANUFACTURER	MKS NUMBER	HANGER NUMBER
2-CH-MSS-001	AD-501	IC	1	23	Basement Overhead	CH	dynA/Damp	CH-8	4A
2-CH-MSS-002	AD-501	IC	1	23	Basement Overhead	CH	dynA/Damp	CH-8	4A
2-CH-MSS-003	AD-151	IC	2	23	Basement Overhead	CH	dynA/Damp	CH-8	4
2-MS-MSS-001	AD-501	OC	1	24	Safeguards	MS	dynA/Damp	103A2	53
2-MS-MSS-002	AD-503	OC	2	24	Safeguards	MS	dynA/Damp	103A2	52
2-MS-MSS-003	AD-503	OC	2	24	Safeguards	MS	dynA/Damp	103A2	51
2-MS-MSS-004	AD-501	OC	2	24	Safeguards	MS	dynA/Damp	103A2	53
2-MS-MSS-005	AD-501	OC	2	24	Safeguards	MS	dynA/Damp	103A2	52
2-MS-MSS-006	AD-501	OC	2	24	Safeguards	MS	dynA/Damp	103A2	51
2-RC-MSS-001	AD-503	IC	2	23	18 ft. Elevation	RC	dynA/Damp	124A2	41A
2-RC-MSS-002	AD-503	IC	1	23	18 ft. Elevation	RC	dynA/Damp	124A2	41A
2-RC-MSS-005	AD-71	IC	2	25	Op Deck	RC	dynA/Damp	12846.51-PKS-1	PSSP015
2-RC-MSS-006	AD-41	IC	2	25	PRZR Cubicle	RC	dynA/Damp	12846.51-PKS-1	PSSP004
2-RC-MSS-007	AD-71R	IC	2	25	PRZR Cubicle	RC	dynA/Damp	12846.51-PKS-1	PSSP003
2-RH-MSS-001	AD-151	IC	2	26	Basement near Sump	RH	dynA/Damp	117B1	7
2-RH-MSS-002	AD-501	IC	2	23	Under RHR Flat	RH	dynA/Damp	117A1	17A
2-RT-MSS-001A	AD-151	IC	NC	25	SG A Cubicle	RT	dynA/Damp	2122A17	13
2-RT-MSS-001B	AD-151	IC	NC	25	SG B Cubicle	RT	dynA/Damp	2122A19	5
2-RT-MSS-001C	AD-151	IC	1	25	SG C Cubicle	RT	dynA/Damp	2122A21	11
2-RT-MSS-002A	AD-41	IC	1	26	SG A Cubicle	RT	dynA/Damp	2122A17	12
2-RT-MSS-002B	AD-41	IC	1	26	SG B Cubicle	RT	dynA/Damp	2122A19	4
2-RT-MSS-002C	AD-151	IC	2	25	SG C Cubicle	RT	dynA/Damp	2122A21	10
2-RT-MSS-015B	AD-41	IC	2	26	SG A Cubicle	RT	dynA/Damp	2122A18	4
2-RT-MSS-015C	AD-41	IC	2	26	Loop Room C	RT	dynA/Damp	2122A21	3
2-RT-MSS-016B	AD-41	IC	2	26	Near Penetration Area	RT	dynA/Damp	2122A18	1

Note 1: Code Class = NC is outside of the ASME Section XI boundary and within the ISTA-1100 requirements