# Enclosure 1

## Third Inspection Interval

## Inservice Inspection Program Summary Manual

## PVNGS Unit 1

## 3INT-ISI-1, Revision 5

# 3rd Inspection Interval

# Inservice Inspection Program Summary Manual

# PVNGS Unit 1


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## TABLE OF CONTENTS

# SUMMARY OF CHANGES

**Revision 5**

1. Cover Page – Updated required signatures to align with 73DP-9XI03, Rev. 19, Section 4.4.1.4.

2. Section 3.10.1 – Added Code Case N-733

3. Section 4.0
   a. Category B-A – updated note for Relief Request 40 from being required in R20 to words that more properly reflect RR 40
   b. B3.100 – updated exam requirement from volumetric to volumetric or EVT-1 per N-648-1
   c. B9.11 – Updated total items
      1. Zone 21 – Added welds for UV-651 replacement per WO 4699840
   d. B9.40 – Updated total items
      1. Zone 30 – Added socket welds per WO 4348890
   e. B10.10 – Reduced number of Reactor Vessel B-K exams by taking advantage of N-700
   f. B13.10 – deleted note tying B13.10 exam to B13.70; Deleted reference to R22 since it would be in the 4th Interval
   g. B13.70 – Updated reference from Relief Request 44 (which does not apply to Unit 1) to Relief Request 40
   h. N-733 – Added inspection requirements per N-733 (AI 16-06644-004)

4. Section 5.0 –
   a. C5.11 – Updated total items
      1. Zones 62 & 63 – Updated total items due to Fukushima tie ins
   b. C5.21 – Updated total items
      1. Zone 111 & 112 – Updated total items due to Fukushima tie ins
      2. Zones 126-129 – Added Fukushima mods
   c. C5.51 – Updated total items.
      a. Zone 58 – Updated total items.
   d. F1.20B – Updated total items
      1. Zones 126 – 129 – Added Fukushima mods

5. Section 6.0 –
   a. D1.20 – Updated total items
      1. CT System – Updated total items from the addition of CT-44-H-1-W (AI 16-13150-004)
   b. F1.30B – Updated total items
      1. CT System – Updated total items from the addition of CT-44-H-1 (AI 16-13150-004)

6. Section 8.0 – Deleted reference to Relief Request 44 (AI 16-11318-003)

7. Section 10.0 –
   a. Zone 6 – Added zone cross-references
   b. Zone 21 – Updated items due to UV-651 replacement (WO 4699840)
   c. Zone 30 – Updated items due to HV-203 & HV-205 replacement (WO 4348890)
   d. Zone 58 – Updated items due to FAC replacements (WOs 3309334 and 4629309)
   e. Zone 62 – Updated zone to show Fukushima modification tie-in.
   f. Zone 63 – Updated zone to show Fukushima modification tie-in
   g. Zone 111 – Updated zone to show Fukushima modification tie-in
   h. Zone 112 – Updated zone to show Fukushima modification tie-in.
   i. Zone 126 – New zone due to Fukushima modification.
   j. Zone 127 – New zone due to Fukushima modification.
   k. Zone 128 – New zone due to Fukushima modification.
   l. Zone 129 – New zone due to Fukushima modification.

# PALO VERDE
# NUCLEAR GENERATING STATION
# UNIT 1

## INSERVICE INSPECTION - PROGRAM SUMMARY

### 1.0 SUMMARY

1.1 This document contains a detailed description of the 3rd 10 Year Interval Inservice Inspection (ISI) Program for Palo Verde Nuclear Generating Station Unit 1. This program conforms to the requirements of 10CFR50.55a (g), PVNGS Technical Specifications, Technical Requirements Manual, and the PVNGS UFSAR. Exceptions that are known as of this document preparation date are included in the Requests for Relief Section 8.0.

1.2 The revision is being prepared to update the ISI Program for the 3rd 10 Year Interval. This includes the utilization of the 2001 Edition including the 2003 Addenda of ASME Section XI with the exceptions noted below:

1.2.1 Requests for relief from ASME Section XI requirements are included in Section 8.0. These Relief Requests are prepared in a format similar to that documented in the NEI White Paper Revision 1 dated June 2004, entitled: "Standard Format for Requests from Commercial Reactor Licensees Pursuant to 10CFR50.55a".

1.2.2 The 2007 Edition thru the 2008 Addenda was utilized for Category B-L-1, B-M-1 and C-G for pump and valve body welds requirements. (Ref. Letter 102-06454 and SER dated 09-18-2012). (ACT 4343138)

1.2.3 For clarification, this Interval 3 program was prepared, as was Interval 1 and 2 programs, utilizing 40 month periods.

1.2.4 To support future ISI Programs, reference to the reactor vessel internals aging management program was added (Reference 3.12.3). (CRAI 4353644)

1.2.5 This program was updated to include MRP 192 examinations of mixing tee locations (Reference 3.12.4). (CRAI 4312834)

1.3 This revision does not utilize risk informed inservice inspection methodology at this time.

1.4 The information presented is in a form consistent with the 1st and 2nd 10 Year Interval ISI Program, the applicable requirements of Standard Review Plan manual and procedures and the recommendations contained in NRC letter dated July 17, 1981, from Mr. R.L. Tedesco, NRC, to E. E. Van Brunt, Jr., APS, "Guidance for Preparing Preservice and Inservice Inspection Programs and Relief Requests - Palo Verde Nuclear Generating Station Units 1, 2 and 3."

### 2.0 CODE APPLICABILITY

2.1 Based on paragraph 10 CFR 50.55a(b) (2) that was published 12 months prior to the start of the 3rd 10 Year Interval (7-17-08), the 2001 Edition including the 2003 Addenda of ASME Section XI was referenced as the Code to utilize for preparation of this program. Several exceptions to this code are documented in 10CFR50.55a; each of these exceptions was utilized during the preparation of this program.

- The exemptions of IWB-1220 for Class 1 piping must utilize the 1989 Edition.
- When qualifying VT-3 personnel per IWA-2317, the proficiency of the training must be demonstrated by initial qualification examination and subsequent examinations on a 3 year interval.
- The 1997 Edition must be used for IWA-2240 alternative examination methods, a combination of methods, or newly developed techniques.
- Items B3.120 and B3.140 (nozzle inner radius examinations) of the 1998 Edition must be utilized. An enhanced visual examination with a resolution sensitivity to detect a 1-mil wire or crack may be performed in place of an ultrasonic examination.
- Must utilize the 1995 Edition for examination Item B7.80 per 50.55a.
- IWA-2220, Ultrasonic examination methods are prohibited for surface examinations.
- The surface examination requirements for HPSI systems, Items B9.20, B9.21 and B9.22 are not required to be performed.

2.2 If a code required examination was considered to be impractical during the preparation of this document because of plant design, geometry, accessibility or other conditions, a Request for Relief from that requirement was prepared and included in Section 8.0. If a code required examination is identified to be impractical during the course of an inspection and the code required percentages are not met, a request for relief will be prepared and submitted after each inspection period, and the final interval closeout no later than 12 months after expiration of the Interval.

2.3 This ISI Program will implement the ASME Section XI 2001 Edition Appendix VIII (Performance Demonstration for Ultrasonic Examination Systems) in accordance with 10 CFR 50.55a. These examinations will be conducted in accordance with the Performance Demonstration Initiative (PDI). The PDI Code Comparison document (Reference 3.12.2) explains the complex relationship of regulatory requirements, ASME requirements, code editions, and the PDI program. (CRAI 4378832)

## 3.0 DESCRIPTION

3.1 SCOPE

3.1.1 This Inservice Inspection Program Summary includes all applicable nondestructive examinations required by ASME Section XI as identified below:

1. Examination of ASME Class 1, 2, and 3 pressure retaining components and their supports

3.1.2 This program also includes an augmented section that includes examinations for other items required to be examined as identified below.

1. Examinations of welds in Class 1 components fabricated with Alloy 600/82/182 materials in accordance with 10CFR50.55a and Code Case N-722-1.
2. Examination of the Reactor Vessel Closure Head in accordance with 10CFR50.55a and Code Case N-729-1.
3. Examination of welds in Class 1 piping and vessel nozzle butt welds fabricated with alloy 82/182 in accordance with 10CFR50.55a and Code Case N-770-1.

4. Examination of high energy line piping in accordance with UFSAR 6.6.1. (CRAI 4178275)

5. Examination of the Reactor Coolant Pump Flywheels in accordance with PVNGS Technical Specifications Section ITS 5.5.7.

6. USNRC Circulars, Information Notices, Bulletins, or Orders

7. INPO or other industry operating experiences

8. Combustion Engineering or Westinghouse bulletins or notices

9. Special examinations to satisfy other commitments or concerns that are based on operating experiences, USNRC. These examinations are scheduled throughout this program and reference the applicable notification documents.

3.1.3 Those items that may generally be included in an Inservice Inspection Program, but are not included are identified below:

1. Pressure testing of ASME Class 1, 2, and 3 piping will be performed in accordance with the Pressure Testing Program.

2. The inservice testing of snubbers will be performed in accordance with 10CFR50.55a.

3. The inservice examination of steam generator tubing will be performed in accordance with the PVNGS Technical Specifications Section T5.5.9.

4. The Examination Program for the ASME Subsections IWE and IWL will be performed in accordance with 10CFR50.55a and the PVNGS Technical Specifications.

## 3.2 SYSTEM BOUNDARIES

3.2.1 A complete set of P&ID drawings indicating the Inservice Inspection boundary are maintained at the PVNGS site. These drawings illustrate the ASME Class 1, 2, and 3 systems; components; and boundaries scheduled for examinations and pressure testing. A referenced listing of these drawings is documented in Section 9.0.

3.2.2 A set of ISI (Zone) Drawings is included in Section 10.0. These drawings are utilized for the planning and scheduling of specific ASME Class 1 and 2 examinations throughout the 10 Year Interval. These also document the location and number of welds, components, and supports. These Zone drawings are controlled in conjunction with this program manual. (CRAI 4398773)

1. Zone drawings have also been added for diesel generator skid piping supports.

## 3.3 ACCESSIBILITY

3.3.1 The preservice examinations were performed with examination techniques, automated or manual, similar to those planned for use during Inservice Inspections. The examination limitations noted during the preservice examinations were documented in Requests for Relief submitted with the preservice examination program. There has also been a number of additional code limitations noted during the 1st and 2nd 10 Year Intervals and Request for Relief submitted. If included in the required 3rd Interval examinations they will again be evaluated and relief requested. Note Section 8.0 identifies all the reliefs submitted during the preparation and implementation of the 3rd Interval.

3.3.2 All items that are scheduled for examination will be examined to the extent practical. In addition, any code limitations that are noted during the examinations will be documented. If relief is required from any of these examinations, a Request for Relief will be submitted after the relief is discovered and prior to 12 months after the interval ends.

## 3.4 EXAMINATION TECHNIQUES

3.4.1 The three types of examinations utilized to perform Inservice Inspections, along with the actual nondestructive examination technique, are identified in the legend below:

VT - Visual

- VT - 1 (General Condition)
- VT - 2 (Leakage)
- VT - 3 (Mechanical and Structural Condition)
- VE (Visual Examination)

S - Surface

- PT - Liquid Penetrant
- MT - Magnetic Particle
- ET - Eddy Current

VOL - Volumetric

- UT - Ultrasonic
- RT - Radiography

3.4.2 All the above nondestructive examination techniques will be performed using specific techniques and procedures that are identified in ASME Section XI, or alternative examinations that are demonstrated to be equivalent or superior to those identified. The provision for substitution of these alternative examination methods, combination of methods, or newly developed techniques will utilize the 1997 Addenda for IWA-2240.

## 3.5 INSPECTION INTERVALS

3.5.1 The Inservice Inspection Program was prepared in accordance with Program B of ASME Section XI. The 1st, 2nd, and 3rd 10 Year Intervals and corresponding inspection periods are defined below:

| | |
|---|---|
| First Inspection Interval: | 01-28-86 to 07-17-98 |
| Second Inspection Interval: | 07-18-98 to 07-17-08 |
| **Third Inspection Interval:** | **07-18-08 to 07-17-18** |
| **Period One:** | **07-18-08 to 11-17-11** |
| **Period Two:** | **11-18-11 to 03-17-15** |
| **Period Three:** | **03-18-15 to 07-17-18** |

It should be noted that the intervals/periods may change to allow for extended outage durations per IWA-2400 of ASME Section XI.

## 3.6 EXAMINATION CATEGORIES

3.6.1 The examination categories of ASME Section XI were utilized to develop this program for all systems, components, and supports. The Subprogram summary tables contained in Sections 4.0 and 5.0 are organized by examination category for ASME Class 1 and 2 systems, respectively. For each examination category, these tables identify the system or identification, nondestructive examination method, total number of items, required examination amount for each inspection period, and running percentage. For ASME Class 3 systems, the examinations categories are identified in Section 6.0.

## 3.7 EVALUATION AND REPAIR

3.7.1 The evaluation of all examination results will be performed in accordance with ASME Section XI Articles IWx-3000. In addition, all applicable repairs and replacements will be performed in accordance with ASME Section XI Articles IWX-4000 and 7000. Pressure tests will be performed on welded and mechanical joint repairs or replacements, in accordance with IWx-4000 and 5000 and 10CFR50. Both the evaluations and repair or replacement will be performed in accordance with the 2001 Edition including the 2003 Addenda of ASME Section XI, or later editions and addenda of ASME Section XI referenced in 10CFR50. Later editions and addenda will be documented with the NRC.

3.7.2 It should be noted that a relief was requested (Relief Request 36) to perform repair and replacement of all three PVNGS units to the 2001 Edition including the 2003 Addenda. This request was documented in conjunction with the relief to perform full structural weld metal overlays.

3.7.3 All repairs and replacements will be documented in accordance with the Work Control program, and are maintained at Palo Verde for review.

## 3.8 SYSTEM PRESSURE TESTS

3.8.1 ASME Class 1, 2, and 3 components will be pressure tested per the requirements of IWB-5000, IWC-5000 and IWD-5000, except where relief has been requested.

3.8.2 Pressure tests will also be performed on repairs and replacements per ASME Section XI, 10CFR50.55a, and the PVNGS Repair and Replacement program.

## 3.9 EXEMPTIONS

3.9.1 The exemption criteria identified in the 2001 Edition including the 2003 Addenda of ASME Section XI was utilized for all ASME Class 1, 2, and 3 components and systems. The only exception is that required by 10CFR50.55a for the ASME Class 1 piping exemptions. These are in accordance with the 1989 Edition of ASME XI.

3.9.2 A thorough review of all the systems and components was performed in accordance with the above exemptions and a complete set of color coded Inservice Inspection Exemption drawings were prepared at the beginning of the interval. These drawings are available for review on site at PVNGS.

## 3.10 CODE CASES

3.10.1 The following Code Cases are accepted for use in Regulatory Guide 1.147 and may be utilized during Interval 3 where applicable (CRAIs 4404322, 4338597, and 4308456):

| | | |
|---|---|---|
| 1. | N-460 | Alternative examination coverage for Class 1 and 2 welds |
| 2. | N-526 | Alternative requirements for successive inspections of Class 1 and 2 vessels |
| 3. | N-532-4 | Alternative requirements to repair and replacement documentation |
| 4. | N-534 | Alternative Requirements for Pneumatic Pressure Testing. |
| 5. | N-537 | Location of Ultrasonic Depth-Sizing Flaws |
| 6. | N-566-2 | Corrective Action for Leakage Identified at Bolted Connections |
| 7. | N-613-1 | Ultrasonic examination of full penetration nozzles in vessels |
| 8. | N-624 | Successive inspections |
| 9. | N-638-4 | Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temper Bead Technique Section XI, Division 1 |
| 10. | N-652-1 | Alternative requirements to categories B-G-1, B-G-2, and C-D bolting |
| 11. | N-663 | Alternative requirements for Classes 1 and 2 Surface Examinations |
| 12. | N-666 | Weld Overlay of Class 1, 2, and 3 Socket Welded Connections |
| 13. | N-685 | Lighting Requirements for Surface Examinations |
| 14. | N-695 | Alternative for Qualification Requirements for Dissimilar Metal Piping Welds, Appendix VIII Supplement 10 |
| 15. | N-700 | Alternative Rules for Selection of Class 1, 2, and 3 Vessel Welded Attachments for Examination |
| 16. | N-705 | Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks |
| 17. | N-733 | Mitigation of Flaws in NPS 2 (DN 50) and Smaller Nozzles and Nozzle Penetration Welds in Vessels and Piping by Use of Mechanical Connection Modification |

3.10.2 The following Code Cases are conditionally accepted for use in Regulatory Guide 1.147 may be utilized with the specified conditions during Interval 3 where applicable:

1. N-513-3 Evaluation Criteria for Temporary Acceptance of Flaws in Moderate Energy Class 2 or 3 Piping

   RG 1.147 documents acceptance condition is that the repair or replacement activity temporarily deferred under the provisions of this Code Case shall be performed during the next scheduled outage.

2. N-648-1 Alternative requirements for inner radius examinations of reactor vessel nozzles

   RG 1.147 documents acceptance condition is that in place of a UT examination, licensees may perform a visual examination with enhanced magnification that has a resolution sensitivity to detect a 1-mil width wire or crack, utilizing the allowable flaw length criteria of Table IWB-3512-1 with limiting assumptions on the flaw aspect ratio. The provisions of Table IWB-2500-1, Examination Category B-D, continue to apply except that, in place of examination volumes, the surfaces to be examined are the external surfaces shown in the figures applicable to this table (the external surface is from point M to point N in the figure).

3.10.3 The following Code Cases are required to be utilized by 10CFR50.55a with additional specified conditions. These are planned to be utilized with the specified conditions during Interval 3:

| | | |
|---|---|---|
| 1. | N-722-1 | Additional Examinations for PWR Pressure Retaining Welds in Class 1 Components Fabricated With Alloy 600/82/182 Materials |
| 2. | N-729-1 | Alternative Examination Requirements for PWR Reactor Vessel Upper Heads With Nozzles Having Pressure-Retaining Partial-Penetration Welds |
| 3. | N-770-1 | Alternative Examination Requirements and Acceptance Standards for Class 1 PWR Piping and Vessel Nozzle Butt Welds Fabricated With UNS N06082 or UNS W86182 Weld filler Material With or Without Application of Listed Mitigation Activities (Note Reference 3.12.1 CRAI 4348764) |

## 3.11 OUTAGE PLAN TABLE

The outage plan table, controlled by procedure 73DP-9XI03 and 73DP-9EE02, identifies the components scheduled for examination including successive examinations from prior periods. The examination procedures and a listing of calibration blocks is also identified.

## 3.12 REFERENCES


3.12.1 SDOC N001-0604-00903 (Supplier Dwg No. PV23Q405), "DESIGN REPORT FOR PREEMPTIVE WELD OVERLAY REPAIRS PRESSURIZER AND HOT LEG DISSIMILAR METAL WELDS PALO VERDE NUCLEAR GENERATING STATION UNITS 1, 2, AND 3 FOR ARIZONA PUBLIC SERVICE, Rev. 1, dated 05/25/2011. (CRAI 4348764)

3.12.2 EPRI 2012 Technical Report 1026510, "Nondestructive Evaluation: Performance Demonstration Initiative (PDI) Comparisons to ASME Section XI, Appendix VIII 2007 Edition with 2008 Addendum, and 10CFR50.55a, Year 2011," dated November 2012. (CRAI 4378832)

3.12.3 SDOC MN755-A00003, "PWR INTERNALS AMP FOR PALO VERDE," Rev. 0, dated 09/07/2012. (CRAI 4353644)

3.12.4 EPRI 2012 Technical Report 1024994, "Materials Reliability Program: Assessment of Residual Heat Removal Mixing Tee Thermal Fatigue in PWR Plants," dated August 2012. (CRAI 4312834)

# SECTION 4.0
# ASME CLASS 1
# EXAMINATION SUMMARY

## INDEX

EXAM CATEGORIES

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-A; PRESSURE RETAINING WELDS IN REACTOR VESSEL** | | | | | | | | *Auto exam with core barrel removed |
| | | | | | | | | | *RR 40; Required |
| B1.10 | SHELL WELDS | | | | | | | | 2016 +/- one outage |
| B1.11 | CIRCUMFERENTIAL | | | | | | | | |
| | 1-Reactor Vessel | welds | 78173 | Vol | 3 | 0 | 1 | 0 | |
| | | | | | | 0 | 2 | 0 | |
| | | | | | | 3* | 3 | 100 | |
| | | | | | | | | | |
| B1.12 | LONGITUDINAL | | | | | | | | |
| | 1-Reactor Vessel | welds | 78173 | Vol | 9 | 0 | 1 | 0 | |
| | | | | | | 0 | 2 | 0 | |
| | | | | | | 9* | 3 | 100 | |
| | | | | | | | | | |
| B1.20 | HEAD WELDS | | | | | | | | |
| B1.21 | CIRCUMFERENTIAL | | | | | | | | |
| B1.22 | MERIDIONAL | | | | | | | | |
| | 1-Reactor Vessel Bottom Head | weld | 78173 | Vol | 1 | 0 | 1 | 0 | |
| | | | | | | 0 | 2 | 0 | |
| | | | | | | 1* | 3 | 100 | |
| | | | | | | | | | |
| | 2-Closure Head | weld | N05065-CHA-02 | Vol | 0 | 0 | 0 | 0 | RVH Replaced R15 |
| | | | | | | | | | |
| B1.30 | SHELL-TO-FLANGE WELD | | | | | | | | |
| | 1-Reactor Vessel | weld | 78173 | Vol | 1 | 0 | 1 | 0 | |
| | | | | | | 0 | 2 | 0 | |
| | | | | | | 1* | 3 | 100 | |
| B1.40 | HEAD-TO-FLANGE WELD | | | | | | | | |
| | 2-Closure Head | weld | N05065-CHA-02 | S & Vol | 0 | 0 | 0 | 0 | RVH Replaced R15 |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-B; PRESSURE RETAINING WELDS VESSELS OTHER THAN REACTOR VESSELS** | | | | | | | | |
| | ***category running percent** | - | - | - | - | 3 | 1 | 33 | |
| | | | | | | 2 | 2 | 55 | |
| | | | | | | 4 | 3 | 100 | |
| | PRESSURIZER | | | | | | | | |
| B2.10 | SHELL -TO-HEAD WELDS | | | | | | | | |
| B2.11 | CIRCUMFERENTIAL | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | 5- Pressurizer | weld | 78373 | Vol | 2 | 1 | 1 | * | |
| | | | | | | 1 | 3 | * | |
| B2.12 | LONGITUDINAL ** | | | | | | | | |
| | | | | | | | | | |
| | 5- Pressurizer | weld | 65373 | Vol | 4 | 2 | 1 | ** | **1' of each |
| | | | | | | 2 | 3 | ** | intesecting circ |
| | | | | | | | | | exam area |
| | STEAM GENERATORS *** | | | | | | | | |
| B2.30 | HEAD WELDS | | | | | | | | |
| B2.31 | CIRCUMFERENTIAL | | | | | | | | *** Multiple Vessels |
| | 3- Steam Generator 1 | weld | 224 | Vol | 1 | | | | |
| | 4- Steam Generator 2 | weld | 225 | Vol | 1 | 1 | 2 | * | |
| | | | | | | | | | |
| B2.40 | TUBESHEET TO HEAD | | | | | | | | |
| | 3- Steam Generator 1 | weld | 224 | Vol | 2 | 1 | 3 | | |
| | 4- Steam Generator 2 | weld | 225 | Vol | 2 | 1 | 2 | * | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-D; FULL PENETRATION WELDED NOZZLES IN VESSELS- INSPECTION PROGRAM B** | | | | | | | | |
| | REACTOR VESSEL | | | | | | | | |
| B3.90 | NOZZLE-TO-VESSEL WELDS | | | | | | | | |
| | | | | | | | | | |
| | 1- Reactor Vessel | Outlets - 2 | 78173 | Vol | 6 | 6* | 3 | 100 | *Auto exam with |
| | | Inlets - 4 | | | | | | | core barrel removed |
| | | | | | | | | | |
| B3.100 | NOZZLE INSIDE RADIUS SECTION | | | | | | | | |
| | | | | | | | | | |
| | 1- Reactor Vessel | Outlets - 2 | 78173 | Vol or EVT-1** | 6 | 6* | 3 | 100 | *Auto exam with |
| | | Inlets - 4 | | | | | | | core barrel removed |
| | | | | | | | | | **EVT-1 allowed per N-648-1 |
| | PRESSURIZER | | | | | | | | |
| B3.110 | NOZZLE-TO-VESSEL WELDS | | | | | | | | |
| | | | | | | | | | |
| | 5- Pressurizer | Surge - 1 | 78373 | Vol | 6 | 2 | 1 | 33 | |
| | | Spray - 1 | | | | 2 | 2 | 67 | |
| | | Safeties - 4 | | | | 2 | 3 | 100 | |
| | | | | | | | | | |
| B3.120 | NOZZLE INSIDE RADIUS SECTION** | | | | | | | | |
| | | | | | | | | | |
| | 5- Pressurizer | Surge - 1 | 78373 | Vol | 6 | 2 | 1 | 33 | |
| | | Spray - 1 | | | | 2 | 2 | 67 | |
| | | Safeties - 4 | | | | 2 | 3 | 100 | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | STEAM GENERATORS | | | | | | | | |
| B3.130 | NOZZLE-TO-VESSEL WELDS | | | | | | | | |
| | ***B3.130 & B3.140 running percent** | - | - | - | - | 4 | 1 | 30 | |
| | | | | | | 4 | 2 | 60 | |
| | | | | | | 4 | 3 | 100 | |
| | | | | | | | | | |
| | 3- Steam Generator 1 | Inlet - 1 | 224 | Vol | 3 | 1 | 1 | * | |
| | | Outlet - 2 | | | | 2 | 3 | * | |
| | | | | | | | | | |
| | 4- Steam Generator 2 | Inlet - 1 | 225 | Vol | 3 | 1 | 1 | * | |
| | | Outlet - 2 | | | | 2 | 2 | * | |
| | | | | | | | | | |
| B3.140 | NOZZLE INSIDE RADIUS SECTION | | | | | | | | **added inner radius |
| | | | | | | | | | per 10CFR50.55a |
| | 3- Steam Generator 1 | Inlet - 1 | 224 | Vol | 3 | 1 | 1 | * | |
| | | Outlet - 2 | | | | 2 | 3 | * | |
| | | | | | | | | | |
| | 4- Steam Generator 2 | Inlet - 1 | 225 | Vol | 3 | 1 | 1 | * | |
| | | Outlet - 2 | | | | 2 | 2 | * | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-F; PRESSURE RETAINING DISSIMILAR METAL WELDS IN VESSEL NOZZLES** | | | | | | | | |
| | PRESSURIZER | | | | | | | | |
| B5.40 | NOMINAL PIPE SIZE ≥ 4 INCH NOZZLE TO SAFEEND BUTT WELDS | | | | | | | | |
| | 20- Surge | butt welds | RC-028-12" | S & Vol | 6 | * | * | * | Mitigated with FSWO |
| | 29- Spray | butt welds | RC-018-4" | S & Vol | | | | | Moved to augmented |
| | 31- Safeties (4) | butt welds | RC-001-6" | S & Vol | | | | | |
| | | | RC-003-6" | S & Vol | | | | | |
| | | | RC-005-6" | S & Vol | | | | | |
| | | | RC-007-6" | S & Vol | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-G-1; PRESSURE RETAINING BOLTING GREATER THAN 2 IN. IN DIAMETER** | | | | | | | | |
| | REACTOR VESSEL | | | | | | | | |
| B6.10 | CLOSURE HEAD NUTS | | | | | | | | |
| | | | | | | | | | |
| | 2- Closure Head | nuts | 7.237" x 7.91" | VT-1 | 54 | 54 | 3 | 100 | |
| | | | | | | | | | |
| B6.20 | CLOSURE STUDS | | | | | | | | |
| | | | | | | | | | |
| | 2- Closure Head | studs | 7.380" x 76.37" | Vol | 54 | 0 | 1 | 0 | |
| | | | | | | 0 | 2 | 0 | |
| | | | | | | 54 | 3 | 100 | |
| | | | | | | | | | |
| B6.40 | THREADS IN FLANGE | | | | | | | | |
| | | | | | | | | | |
| | 1- Reactor Vessel | Stud Holes | 78173 | Vol | 54 | 0 | 1 | 0 | |
| | | | | | | 0 | 2 | 0 | |
| | | | | | | 54 | 3 | 100 | |
| | | | | | | | | | |
| B6.50 | CLOSURE WASHERS BUSHINGS | | | | | | | | |
| | | | | | | | | | |
| | 2- Closure Head | Washers | 7.50" x 1.27" | VT-1 | 54 | 54 | 3 | 100 | |
| | | | | | | | | | |
| | PUMPS | | | | | | | | |
| B6.180 | BOLTS AND STUDS | | | | | | | | |
| | 16- Reactor Coolant Pump 1A | Flange Studs | 4.33" x 32.87" | Vol | 16 | 16 | 3 | 100 | * Multiple pumps |
| | 17- Reactor Coolant Pump 1B | Flange Studs | 4.33" x 32.87" | Vol | 16 | * | * | | |
| | 18- Reactor Coolant Pump 2A | Flange Studs | 4.33" x 32.87" | Vol | 16 | * | * | | |
| | 19- Reactor Coolant Pump 2B | Flange Studs | 4.33" x 32.87" | Vol | 16 | * | * | | |
| | | | | | | | | | |
| B6.190 | FLANGE SURFACE WHEN CONNECTION DISASSEMBLED | | | | | | | | ** VT-1 exams on 1 pump per interval (with B12.XX exams) |
| | 16- Reactor Coolant Pump 1A | surface | 1109-1A | VT-1 | 1 | ** | ** | ** | |
| | 17- Reactor Coolant Pump 1B | surface | 1109-1B | VT-1 | 1 | ** | ** | ** | |
| | 18- Reactor Coolant Pump 2A | surface | 1109-2A | VT-1 | 1 | ** | ** | ** | |
| | 19- Reactor Coolant Pump 2B | surface | 1109-2B | VT-1 | 1 | ** | ** | ** | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| B6.200 | NUTS, BUSHINGS, AND WASHERS | | | | | | | | ** VT-1 exams on 1 pump per interval (with B12.XX exams) |
| | 16- Reactor Coolant Pump 1A | nuts & ring | 1109-1A | VT-1 | 16 | ** | ** | ** | |
| | 17- Reactor Coolant Pump 1B | nuts & ring | 1109-1B | VT-1 | 16 | ** | ** | ** | |
| | 18- Reactor Coolant Pump 2A | nuts & ring | 1109-2A | VT-1 | 16 | ** | ** | ** | |
| | 19- Reactor Coolant Pump 2B | nuts & ring | 1109-2B | VT-1 | 16 | ** | ** | ** | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-G-2; PRESSURE RETAINING BOLTING 2 IN. AND LESS IN DIAMETER** | | | | | | | | * Bolting is required to be examined: |
| | PRESSURIZER | | | | | | | | 1. when disassembled |
| B7.20 | BOLTS, STUDS AND NUTS | | | | | | | | 2. only 1 per interval |
| | | | | | | | | | |
| | 5- Pressurizer Manway | Studs & Nuts | 1.31" x 14.5" | VT-1 | 20 | 20 | * | * | |
| | | | | | | | | | |
| | STEAM GENERATOR | | | | | | | | |
| B7.30 | BOLTS, STUDS AND NUTS | | | | | | | | |
| | | | | | | | | | |
| | 3- Steam Generator 1 MANWAYS | Studs & Nuts | 1.31" x 14.5" | VT-1 | 40 | 40 | * | * | |
| | 4- Steam Generator 2 MANWAYS | Studs & Nuts | 1.31" x 14.5" | VT-1 | 40 | 40 | * | * | |
| | | | | | | | | | |
| | PIPING | | | | | | | | **only 1 of the Z31 |
| B7.50 | BOLTS, STUDS AND NUTS | | | | | | | | bolted connections is |
| | 31- Pressurizer Safeties | Flange Bolting | RC-001-6" | VT-1 | 8 | 8 | *&** | *&** | required |
| | | Flange Bolting | RC-003-6" | VT-1 | 8 | 8 | *&** | *&** | |
| | | Flange Bolting | RC-005-6" | VT-1 | 8 | 8 | *&** | *&** | |
| | | Flange Bolting | RC-007-6" | VT-1 | 8 | 8 | *&** | *&** | |
| | 37- Charging Line | Flange V435 | CH-005-2" | VT-1 | 8 | 8 | * | * | |
| | | | | | | | | | |
| | PUMPS | | | | | | | | |
| B7.60 | BOLTS, STUDS AND NUTS | | | | | | | | |
| | 16- Reactor Coolant Pump 1A | seal cover | 1.1" x 8.27" | VT-1 | 16 | 16 | * | * | |
| | 17- Reactor Coolant Pump 1B | seal cover | 1.1" x 8.27" | VT-1 | 16 | 16 | * | * | |
| | 18- Reactor Coolant Pump 2A | seal cover | 1.1" x 8.27" | VT-1 | 16 | 16 | * | * | |
| | 19- Reactor Coolant Pump 2B | seal cover | 1.1" x 8.27" | VT-1 | 16 | 16 | * | * | |
| | | | | | | | | | |
| | VALVES | | | | | | | | |
| B7.70 | BOLTS, STUDS AND NUTS | | | | | | | | |
| | 31- Pressurizer Safeties | PSV-200 | RC-001-6" | VT-1 | 12 | 12 | * | * | |
| | (Body Bolts) | PSV-201 | RC-003-6" | VT-1 | 12 | 12 | * | * | |
| | | PSV-202 | RC-005-6" | VT-1 | 12 | 12 | * | * | |
| | | PSV-203 | RC-007-6" | VT-1 | 12 | 12 | * | * | |
| | 30- Aux Pressurizer Spray | HV-203 | CH-521-2" | VT-1 | 4 | 4 | * | * | |
| | | HV-205 | CH-520-2" | VT-1 | 4 | 4 | * | * | |
| | | | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | CRD HOUSING | | | | | | | | **** When disassembled and only once per interval |
| B7.80 | BOLTS, STUDS AND NUTS | | | | | | | | |
| | 2-Closure Head RVLMS Locations | Grayloc Clamps | CEDM 92 | VT-1 | 4 | 4 | **** | **** | |
| | | | CEDM 96 | VT-1 | 4 | 4 | **** | **** | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-J; PRESSURE RETAINING WELDS IN PIPING** | | | | | | | | |
| B9.10 | NPS 4 OR LARGER | | | | | | | | * SURFACE EXAMS |
| B9.11 | * CIRCUMFERENTIAL WELDS | | | | | | | | NOT REQUIRED |
| | 6- RCS Primary Piping | | | | | | | | |
| | HL 1** | butt welds | RC-032-42" ID | S* & Vol | 66 | 6 | 1 | 9 | ** AUTO EXAM OF |
| | HL 2** | butt welds | RC-063-42" ID | | | 6 | 2 | 18 | NOZZLE TO EXT AND |
| | CL 1A to RCP | butt welds | RC-033-30" ID | | | 8 | 3 | 30 | EXT TO PIPE WELDS |
| | CL 1B to RCP | butt welds | RC-030-30" ID | | | | | | *SURFACE EXAMS |
| | CL 2A to RCP | butt welds | RC-073-30" ID | | | | | | NOT REQUIRED |
| | CL 2B to RCP | butt welds | RC-084-30" ID | | | | | | INCONJUNCTION |
| | CL 1A to RPV** | butt welds | RC-034-30" ID | | | | | | AUTO EXAMINATIONS |
| | CL 1B to RPV** | butt welds | RC-031-30" ID | | | | | | (EWR-3673722 & |
| | CL 2A to RPV** | butt welds | RC-079-30" ID | | | | | | CODE CASE N663) |
| | CL 2B to RPV** | butt welds | RC-093-30" ID | | | | | | |
| | | | | | | | | | |
| | 20- Pressurizer Surge Line | butt welds | RC-028-12" | S & Vol | 11 | 1 | 2 | 9 | DM MOVED TO AUG |
| | | | | | | 2 | 3 | 27 | |
| | | | | | | | | | |
| | 21- Shutdown Cooling Loop 1 | butt welds | RC-051-16" | S & Vol | 30 | 3 | 1 | 14 | DM MOVED TO AUG |
| | | | SI-240-16" | | | 4 | 2 | 28 | |
| | | | | | | | | | |
| | 22- Shutdown Cooling Loop 2 | butt welds | RC-068-16" | S & Vol | 27 | 2 | 1 | 7 | DM MOVED TO AUG |
| | | | SI-193-16" | | | 2 | 2 | 14 | |
| | | | | | | 3 | 3 | 26 | |
| | | | | | | | | | |
| | 23- Safety Injection 1A | butt welds | SI-207-14" | S & Vol | 19 | 2 | 1 | 10 | DM MOVED TO AUG |
| | | | SI-203-12" | | | 3 | 3 | 26 | |
| | | | | | | | | | |
| | 24- Safety Injection 1B | butt welds | SI-223-14" | S & Vol | 18 | 6 | 2 | 33 | DM MOVED TO AUG |
| | | | SI-221-12" | | | | | | |
| | | | | | | | | | |
| | 25- Safety Injection 2A | butt welds | SI-160-14" | S & Vol | 22 | 6 | 3 | 27 | DM MOVED TO AUG |
| | | | SI-156-12" | | | | | | |
| | | | | | | | | | |
| | 26- Safety Injection 2B | butt welds | SI-179-14" | S & Vol | 20 | 5 | 3 | 25 | DM MOVED TO AUG |
| | | | SI-175-12" | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 28 & 29- Pressurizer Spray | butt welds | RC-018-4" | S & Vol | 16 | 1 | 1 | 6 | |
| | | | | | | 1 | 2 | 12 | |
| | | | | | | 2 | 3 | 25 | |
| | | | | | | | | | |
| | 31- Pressurizer Safeties | butt welds | RC-001-6" | S & Vol | 12 | 1 | 1 | 8 | |
| | | | RC-003-6" | | | 1 | 2 | 17 | |
| | | | RC-005-6" | | | 1 | 3 | 25 | |
| | | | RC-007-6" | | | | | | |
| | | | | | | | | | |
| | 36- Letdown Line (delay coil) | butt welds | RC-091-16" | S & Vol | 4 | 1 | 3 | 25 | |
| | | | | | | | | | |
| B9.20 | LESS THAN NPS 4 | | | | | | | | |
| B9.21 | * CIRCUMFERENTIAL WELDS OTHER THAN PWR HPSI SYSTEMS | | | | | | | | |
| | | | | | | | | | |
| | 27- Pressurizer Spray 1A | butt welds | RC-062-3" | S | 40 | 10 | 1 | 25 | DM MOVED TO AUG |
| | | | RC-016-3" | | | | | | |
| | | | | | | | | | |
| | 28- Pressurizer Spray 1B | butt welds | RC-017-3" | S | 37 | 10 | 3 | 26 | DM MOVED TO AUG |
| | | | RC-018-3" | | | | | | |
| | | | | | | | | | |
| | 30- Aux Pressurizer Spray | butt welds | CH-009-2" | S | 11 | 3 | 2 | 27 | |
| | | | CH-520-2" | | | | | | |
| | | | CH-521-2" | | | | | | |
| | | | | | | | | | |
| | 32- Drain Line Loop 1A | butt welds | RC-060-2" | S | 5 | 1 | 1 | 20 | DM MOVED TO AUG |
| | | | | | | | | | |
| | 33- Drain Line Loop 1B | butt welds | RC-058-2" | S | 5 | 2 | 2 | 40 | DM MOVED TO AUG |
| | | | | | | | | | |
| | 34- Drain Line Loop 2A | butt welds | RC-096-2" | S | 5 | 2 | 3 | 40 | DM MOVED TO AUG |
| | | | | | | | | | |
| | 35- Drain Line Loop 2B | butt welds | RC-089-2" | S | 5 | 2 | 3 | 40 | |
| | | | | | | | | | |
| | 36- Letdown Line | butt welds | RC-091-2" | S | 70 | 5 | 1 | 8 | DM MOVED TO AUG |
| | | | CH-001-2" | | | 6 | 2 | 16 | |
| | | | | | | 7 | 3 | 25 | |
| | | | | | | | | | |
| | 37- Charging Line | butt welds | CH-005-3" | S | 63 | 5 | 1 | 7 | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | CH-005-2" | | | 5 | 2 | 16 | |
| | | | | | | 6 | 3 | 25 | |
| | | | | | | | | | |
| | 38- Drain Line Loop 1 | butt welds | RC-070-2" | S | 1 | 1 | 2 | 100 | |
| | | | | | | | | | |
| B9.22 | CIRCUMFERENTIAL WELDS OF PWR HPSI SYSTEMS | | | | | | | | |
| | 39- HPSI Long Term Recirculation 1 | butt welds | SI-248-3" | Vol | 52 | 6 | 2 | 11 | |
| | | | | | | 8 | 3 | 27 | |
| | | | | | | | | | |
| | 40- HPSI Long Term Recirculation 2 | butt welds | SI-199-3" | Vol | 27 | 3 | 1 | 11 | |
| | | | | | | 4 | 2 | 26 | |
| | | | | | | | | | |
| B9.30 | BRANCH PIPE CONNECTION WELDS | | | | | | | | |
| B9.31 | NPS 4 OR LARGER | | | | | | | | |
| | *** 9.31 running percent** | - | - | - | 7 | 1 | 1 | 14 | |
| | | | | | | 1 | 3 | 28 | |
| | 6- RCS Primary Piping | | | | | | | | |
| | Surge | branch weld | RC-032-42" ID | S & Vol | 1 | | | | |
| | SD Cooling 1 | branch weld | RC-032-42" ID | S & Vol | 1 | | | | |
| | SD Cooling 2 | branch weld | RC-063-42" ID | S & Vol | 1 | | | | |
| | SI 1A | branch weld | RC-034-30" ID | S & Vol | 1 | | | | |
| | SI 1B | branch weld | RC-031-30" ID | S & Vol | 1 | | | | |
| | SI 2A | branch weld | RC-079-30" ID | S & Vol | 1 | | | | |
| | SI 2B | branch weld | RC-093-30" ID | S & Vol | 1 | | | | |
| | | | | | | | | | |
| B9.32 | LESS THAN NPS 4 | | | | | | | | |
| | *** 9.32 running percent** | - | - | - | 14 | 1 | 1 | 7 | |
| | | | | | | 1 | 2 | 14 | |
| | | | | | | 2 | 3 | 28 | |
| | 6- RCS Primary Piping | | | | | | | | |
| | Drain 1A | branch weld | RC-033-30" ID | S | 1 | | | | |
| | PZR Spray 1A | branch weld | RC-034-30" ID | S | 1 | | | | |
| | Drain 1B | branch weld | RC-030-30" ID | S | 1 | | | | |
| | PZR Spray 1B | branch weld | RC-031-30" ID | S | 1 | | | | |
| | Drain 2A | branch weld | RC-073-30" ID | S | 1 | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | Charging | branch weld | RC-079-30" ID | S | 1 | | | | |
| | Letdown | branch weld | RC-084-30" ID | S | 1 | | | | |
| | | | | | | | | | |
| | 21- Shutdown Cooling Loop 1 | branch weld | RC-051-16" | S | 2 | | | | |
| | 2" Drain & 3" HPSI | | | | | | | | |
| | | | | | | | | | |
| | 22- Shutdown Cooling Loop 2 | branch weld | RC-068-16" | S | 1 | | | | |
| | 3" HPSI | | | | | | | | |
| | | | | | | | | | |
| | 36- Letdown Line | branch weld | RC-091-16" | S | 4 | | | | |
| | | | | | | | | | |
| B9.40 | SOCKET WELDS | | | | | | | | |
| | *** 9.40 running percent** | - | - | - | 21 | 2 | 1 | 12 | |
| | | | | | | 1 | 2 | 18 | |
| | | | | | | 2 | 3 | 29 | |
| | | | | | | | | | |
| | 30- Aux. Pzr Spray | socket weld | CH-520-2" | S | 2 | | | | |
| | | | CH-521-2" | S | 2 | | | | |
| | | | | | | | | | |
| | 32- Drain Line Loop 1A | socket weld | RC-060-2" | S | 3 | | | | |
| | | | | | | | | | |
| | 33- Drain Line Loop 1B | socket weld | RC-058-2" | S | 3 | | | | |
| | | | | | | | | | |
| | 34- Drain Line Loop 2A | socket weld | RC-096-2" | S | 3 | | | | |
| | | | | | | | | | |
| | 35- Drain Line Loop 2B | socket weld | RC-089-2" | S | 3 | | | | |
| | | | | | | | | | |
| | 37- Charging Line | socket weld | CH-005-3" | S | 4 | | | | |
| | | | | | | | | | |
| | 38- Drain Line Loop 1 | socket weld | RC-070-2" | S | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-K; WELDED ATTACHMENTS FOR VESSELS. PIPING, PUMPS AND VALVES** | | | | | | | | |
| | | | | | | | | | |
| | PRESSURE VESSELS | | | | | | | | |
| B10.10 | WELDED ATTACHMENTS | | | | | | | | **Accessible Side |
| | ***B10.10 running percent** | - | - | - | 7 | 2 | 1 | 28 | * Multiple vessels |
| | | | | | | 2 | 2 | 57 | |
| | | | | | | 3 | 3 | 100 | |
| | | | | | | | | | |
| | 1- Reactor Vessel | attachment | | S** | 4 | 0 | 1 | 0 | Exam of one support |
| | | | | | | 1 | 2 | 25 | required per N-700 |
| | | | | | | 0 | 3 | 25 | |
| | | | | | | | | | |
| | 3- Steam Generator 1 * | support skirt | 224 | S** | 1 | | | | |
| | | | | | | | | | |
| | 4 -Steam Generator 2 * | support skirt | 225 | S** | 1 | 1 | 2 | 50 | |
| | | | | | | | | | |
| | 5- Pressurizer | support skirt | 78373 | S** | 1 | 1 | 1 | 100 | |
| | | | | | | | | | |
| | PIPING | | | | | | | | |
| B10.20 | WELDED ATTACHMENTS | | | | | | | | |
| | ***B10.20 running percent** | - | - | - | 13 | 1 | 1 | 8 | |
| | | | | | | 1 | 3 | 15 | |
| | 22- Shutdown Cooling 2 | attachment | SI-193-16" | S | 1 | | | | |
| | | | RC-068-16" | S | 1 | | | | |
| | | | | | | | | | |
| | 27- PZR Spray 1A | attachment | RC-062-3" | S | 1 | | | | |
| | | | | | | | | | |
| | 28- PZR Spray 1B | attachment | RC-017-3" | S | 1 | | | | |
| | | | | | | | | | |
| | 29- Combined PZR Spray | attachment | RC-18-3" | S | 1 | | | | |
| | | | | | | | | | |
| | 36- Letdown Line | attachment | RC-091-16" | S | 4 | | | | |
| | | | | | | | | | |
| | 37- Charging Line | attachment | CH-005-3" | S | 3 | | | | |
| | | | | | | | | | |
| | 40- HPSI Long Term 2 | attachment | SI-199-3" | S | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-L-1, PRESSURE RETAINING WELDS IN PUMP CASINGS; B-M-1, PRESSURE RETAINING WELDS IN VALVE BODIES; B-L-2, PUMP CASINGS; B-M-2, VALVE BODIES** | | | | | | | | **EXAM CATEGORIES B-L-1 AND B-M-1 DELETED IN THE 2007 ED 2008 ADD** |
| B12.20 | PUMP CASING | | | | | | | | |
| | 16- Reactor Coolant Pump 1A | casing | 1109-1A | VT-3 | 4 | 1 | * | * | Exam required when |
| | 17- Reactor Coolant Pump 1B | casing | 1109-1B | VT-3 | | | | | pump is disassembled |
| | 18- Reactor Coolant Pump 2A | casing | 1109-2A | VT-3 | | | | | |
| | 19- Reactor Coolant Pump 2B | casing | 1109-2B | VT-3 | | | | | |
| | | | | | | | | | |
| B12.50 | VALVE BODY, EXCEEDING NPS 4 | | | | | | | | |
| | | | | | | | | | |
| | 16" Borg Warner Gate Valves | | | | | | | | |
| | Utilizing Forged Construction | | | | | | | | |
| | Zone 21 | UV-651 | RC-051-16" | VT-3 | 4 | 1 | * | * | Exam required when |
| | | UV-653 | SI-240-16" | VT-3 | | | | | valve is disassembled |
| | Zone 22 | UV-652 | RC-068-16" | VT-3 | | | | | |
| | | UV-654 | SI-193-16" | VT-3 | | | | | |
| | | | | | | | | | |
| | 14" Borg Warner Gate Valves | | | | | | | | |
| | Utilizing Forged Construction | | | | | | | | |
| | Zone 23 | UV-634 | SI-207-14" | VT-3 | 4 | 1 | * | * | Exam required when |
| | Zone 24 | UV-644 | SI-223-14" | VT-3 | | | | | valve is disassembled |
| | Zone 25 | UV-614 | SI-160-14" | VT-3 | | | | | |
| | Zone 26 | UV-624 | SI-179-14" | VT-3 | | | | | |
| | | | | | | | | | |
| | 12" Borg Warner Check Valves | | | | | | | | |
| | Utilizing Cast Construction | | | | | | | | |
| | Zone 23 | V-542 | SI-203-12" | VT-3 | 4 | 1 | * | * | Exam required when |
| | Zone 24 | V-543 | SI-221-12" | VT-3 | | | | | valve is disassembled |
| | Zone 25 | V-540 | SI-156-12" | VT-3 | | | | | |
| | Zone 26 | V-541 | SI-175-12" | VT-3 | | | | | |
| | | | | | | | | | |
| | 14" Borg Warner Check Valves | | | | | | | | |
| | Utilizing Cast Construction | | | | | | | | |
| | Zone 23 | V-235 | SI-207-14" | VT-3 | 8 | 1 | * | * | Exam required when |
| | | V-237 | SI-207-14" | VT-3 | | | | | valve is disassembled |
| | Zone 24 | V-245 | SI-223-14" | VT-3 | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | V-247 | SI-223-14" | VT-3 | | | | | |
| | Zone 25 | V-215 | SI-160-14" | VT-3 | | | | | |
| | | V-217 | SI-160-14" | VT-3 | | | | | |
| | Zone 26 | V-225 | SI-179-14" | VT-3 | | | | | |
| | | V-227 | SI-179-14" | VT-3 | | | | | |
| | | | | | | | | | |
| | Dresser PSV | | | | | | | | |
| | Utilizing Forged Construction | | | | | | | | |
| | Zone 31 | PSV-200 | RC-001-6" | VT-3 | 4 | 1 | * | * | Exam required when |
| | | PSV-201 | RC-003-6" | VT-3 | | | | | valve is disassembled |
| | | PSV-202 | RC-005-6" | VT-3 | | | | | |
| | | PSV-203 | RC-007-6" | VT-3 | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-N-1, INTERIOR OF REACTOR VESSEL; B-N-2, WELDED CORE SUPPORT STRUCTURES AND INTERIOR ATTACHMENTS TO REACTOR VESSELS; B-N-3, REMOVABLE CORE SUPPORT STRUCTURES** | | | | | | | | |
| B13.10 | VESSEL INTERIOR | | | | | | | | At 3 year intervals |
| | 1- Reactor Vessel | accessible areas | 78173 | VT-3 | 1 | 1 | 1 | 100 | R17, R19, and R20 |
| | | | | | | 1 | 2 | 100 | |
| | | | | | | 1 | 3 | 100 | |
| B13.50 | INTERIOR ATTACHMENTS | | | | | | | | |
| | WITHIN BELTLINE REGION | | | | | | | | |
| | 1- Reactor Vessel | accessible welds | 78173 | VT-1 | 1 | 1 | 3 | 100 | |
| | | | | | | | | | |
| B13.60 | INTERIOR ATTACHMENTS | | | | | | | | |
| | BEYOND BELTLINE REGION | | | | | | | | |
| | 1- Reactor Vessel | accessible welds | 78173 | VT-3 | 1 | 1 | 3 | 100 | |
| | | | | | | | | | |
| B13.70 | CORE SUPPORT STRUCTURE | | | | | | | | |
| | 1- Reactor Vessel | accessible areas | 78173 | VT-3 | 1 | 1 | 3 | 100 | R20* (note RR 40) |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-O; PRESSURE RETAINING WELDS IN CONTROL ROD HOUSINGS** | | | | | | | | |
| | ***exam category running percent** | - | - | - | 126 | 0 | 1 | * | *Replaced RV Head |
| | | | | | | 4 | 2 | 3 | R15 |
| | | | | | | 4 | 3 | 6 | |
| B14.10 | WELDS IN CRD HOUSING | | | | | | | | 32 peripheral |
| | 2- Reactor Vessel | Lower Housing | 66 thru 97 | Vol | 32 | | | | |
| | Closure Head | | | | | | | | |
| | CEDM Housings | | | | | | | | |
| | 2- Reactor Vessel | Upper Housing | 66 thru 97 | Vol | 32 | | | | |
| | Closure Head | | | | | | | | |
| | CEDM Housings | | | | | | | | |
| | 2- Reactor Vessel | Lower Tube | 66-91,93-95,97 | Vol | 32 | | | | |
| | Closure Head | RVLMS | 92 and 96 | | | | | | |
| | CEDM Housings | | | | | | | | |
| | 2- Reactor Vessel | Upper Tube | 66-91,93-95,97 | Vol | 30 | | | | |
| | Closure Head | | | | | | | | |
| | CEDM Housings | | | | | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY B-Q; STEAM GENERATOR TUBING** | | | | | | | | ***Governed by Plant Tech Specifications |
| | | | | | | | | | |
| B16.20 | STEAM GENERATOR TUBING IN | *** | *** | *** | *** | *** | *** | *** | |
| | U-TUBE DESIGN | | | | | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY F-A; SUPPORTS** | | | | | | | | |
| F1.10 | CLASS 1 PIPING SUPPORTS | | | | | | | | |
| | B-MULTIDIRECTIONAL RESTRAINTS | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | ***F-A; A running percent** | NONE | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| F1.10 | CLASS 1 PIPING SUPPORTS | | | | | | | | |
| | B-MULTIDIRECTIONAL RESTRAINTS | | | | | | | | |
| | ***F-A; B running percent** | - | - | - | 81 | 8 | 1 | 9 | |
| | | | | | | 7 | 2 | 18 | |
| | | | | | | 8 | 3 | 28 | |
| | 20- Pressurizer Surge Line | supports | RC-28-12" | VT-3 | 1 | | | | |
| | 21- Shutdown Cooling 1 | supports | RC-51-16" | VT-3 | 14 | | | | |
| | | | SI-240-16" | | | | | | |
| | 22- Shutdown Cooling | supports | SI-193-16" | VT-3 | 4 | | | | |
| | 23- Safety Injection 1A | supports | SI-207-14" | VT-3 | 1 | | | | |
| | 25- Safety Injection 2A | supports | SI-156-12" | VT-3 | 1 | | | | |
| | 26- Safety Injection 2B | supports | SI-179-14" | VT-3 | 2 | | | | |
| | | | SI-175-12" | | | | | | |
| | 27- Pressurizer Spray 1A | supports | RC-62-3" | VT-3 | 8 | | | | |
| | | | RC-16-3" | | | | | | |
| | 28- Pressurizer Spray 1B | supports | RC-17-3" | VT-3 | 9 | | | | |
| | | | RC-18-3" | | | | | | |
| | | | RC-18-4" | | | | | | |
| | 30- Aux Pressurizer Spray | supports | CH-521-2" | VT-3 | 1 | | | | |
| | 32- Drain Line 1A | supports | RC-60-2" | VT-3 | 1 | | | | |
| | 33- Drain Line 1B | supports | RC-58-2" | VT-3 | 0 | | | | |
| | 36- Letdown Line | supports | RC-91-2" | VT-3 | 15 | | | | |
| | | | CH-001-2" | | | | | | |
| | | | RC-91-16" | | | | | | |
| | 37- Charging Line | supports | CH-5-3" | VT-3 | 16 | | | | |
| | 39- HPSI Long Term Recirculation 1 | supports | SI-248-3" | VT-3 | 5 | | | | |
| | 40- HPSI Long Term Recirculation 2 | supports | SI-199-3" | VT-3 | 3 | | | | |
| | | | | | | | | | |
| F1.10 | CLASS 1 PIPING SUPPORTS | | | | | | | | |
| | C-SUPPORTS THAT ALLOW | | | | | | | | |
| | THERMAL MOVEMENT (SPRING) | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | ***F-A; C running percent** | - | - | - | 47 | 3 | 1 | 7 | |
| | | | | | | 4 | 2 | 15 | |
| | | | | | | 5 | 3 | 26 | |
| | 20- Pressurizer Surge Line | supports | RC-28-12" | VT-3 | 3 | | | | |
| | 21- Shutdown Cooling 1 | supports | SI-240-16" | VT-3 | 3 | | | | |
| | 22- Shutdown Cooling | supports | RC-68-16" | VT-3 | 2 | | | | |
| | 23- Safety Injection 1A | supports | SI-207-14" | VT-3 | 4 | | | | |
| | 24- Safety Injection 1B | supports | SI-223-14" | VT-3 | 7 | | | | |
| | 25- Safety Injection 2A | supports | SI-160-14" | VT-3 | 1 | | | | |
| | 26- Safety Injection 2B | supports | SI-179-14" | VT-3 | 2 | | | | |
| | | | SI-175-12" | | | | | | |
| | 27- Pressurizer Spray 1A | supports | RC-62-3" | VT-3 | 3 | | | | |
| | 28- Pressurizer Spray 1B | supports | RC-17-3" | VT-3 | 3 | | | | |
| | 29- Combined Pressurizer Spray | supports | RC-18-4" | VT-3 | 3 | | | | |
| | 30- Aux Pressurizer Spray | supports | CH-521-2" | VT-3 | 1 | | | | |
| | 37- Charging Line | supports | CH-5-3" | VT-3 | 11 | | | | |
| | 39- HPSI Long Term Recirculation 1 | supports | SI-248-3" | VT-3 | 3 | | | | |
| | 40- HPSI Long Term Recirculation 2 | supports | SI-199-3" | VT-3 | 1 | | | | |
| | | | | | | | | | |
| F1.40 | SUPPORTS OTHER THAN | | | | | | | | |
| | PIPING SUPPORTS | | | | | | | | |
| | | - | - | - | 14 | 4 | 1 | 28 | **14 req'd due to |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 4 | 2 | 56 | multiple components |
| | | | | | | 6 | 3 | 100 | |
| | 1 - Reactor Vessel | columns | 78173 | VT-3 | 4 | | | | |
| | | | | | | | | | |
| | 3 - Steam Generator 1* | skirt | 224 | VT-3 | 1 | | | | *multiple comp |
| | | | | | | | | | |
| | 4 - Steam Generator-2* | skirt | 225 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 5 - Pressurizer | skirt | 78373 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 16- Reactor Coolant Pump 1A** | columns | 1109-1A | VT-3 | 8 | | | | **multiple comp |
| | | | | | | | | | |
| | 17- Reactor Coolant Pump 1B** | columns | 1109-1B | VT-3 | 8 | | | | |
| | | | | | | | | | |
| | 18- Reactor Coolant Pump 2A** | columns | 1109-2A | VT-3 | 8 | | | | |
| | | | | | | | | | |
| | 19- Reactor Coolant Pump 2B** | columns | 1109-2B | VT-3 | 8 | | | | |
| | | | | | | | | | |
| F1.40 | SUPPORTS OTHER THAN | | | | | | | | |
| | PIPING SUPPORTS | | | | | | | | |
| | ***F-A; C running percent** | - | - | - | 8** | 1 | 2 | 50 | **2 req'd due to |
| | | | | | | 1 | 3 | 100 | multiple components |
| | 16- Reactor Coolant Pump 1A** | snubbers | 1109-1A | VT-3 | 2 | | | | **multiple comp |
| | | | | | | | | | |
| | 17- Reactor Coolant Pump 1B** | snubbers | 1109-1B | VT-3 | 2 | | | | |
| | | | | | | | | | |
| | 18- Reactor Coolant Pump 2A** | snubbers | 1109-2A | VT-3 | 2 | | | | |
| | | | | | | | | | |
| | 19- Reactor Coolant Pump 2B** | snubbers | 1109-2B | VT-3 | 2 | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY N-733; MITIGATION OF FLAWS IN NPS 2 AND SMALLER NOZZLES BY USE OF MECHANICAL CONNECTION MODIFICATION** | | | | | | | | PSE in 1R19. |
| | | | | | | | | | |
| BOLTING | 6- RCS Primary Piping | MNSA bolting | RCNTE0121Y | VT-1 | 3 | | | | Perform in-place, uninsulated |
| | | | | VT-1 | * | | | | *Exam required if disassembled |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| ASSEMBLY | 6- RCS Primary Piping | MNSA assembly | RCNTE0121Y | VT-2 | ** | | | | **Each RFO, uninsulated |
| | | | | VT-3 | ** | | | | |

# SECTION 5.0
# ASME CLASS 2
# EXAMINATION SUMMARY

## INDEX

| EXAM CATEGORY | |
|---|---|
| C-A | Pressure Retaining Welds in Pressure Vessels |
| C-B | Pressure Retaining Nozzle Welds in Vessels |
| C-C | Welded Attachments for Vessels, Piping, Pumps, and Valves |
| C-D | Pressure Retaining Bolting Greater than 2 Inch in Diameter |
| C-F-1 | Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping |
| C-F-2 | Pressure Retaining Welds in Carbon or Low Alloy Steel Piping |
| C-G | Pressure Retaining Welds in Pumps and Valves |
| C-H | All Pressure Retaining Components |
| F-A | Class 2 Supports |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-A; PRESSURE RETAINING WELDS IN PRESSURE VESSELS** | | | | | | | | |
| | ***category running percent** | - | - | - | 23** | 3 | 1 | 17 | **23 Total, 17 REQ'D |
| | | | | | | 9 | 2 | 70 | multiple vessels |
| | | | | | | 5 | 3 | 100 | |
| | STEAM GENERATORS | | | | | | | | |
| C1.10 | SHELL CIRCUMFERENTIAL WELDS | | | | | | | | |
| | (shell to conical section) | | | | | | | | |
| | 41- Steam Generator 1 | welds | 224 | Vol | 2 | 2 | 3 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | welds | 225 | Vol | 2 | | | | |
| | | | | | | | | | |
| C1.20 | HEAD CIRCUMFERENTIAL WELDS | | | | | | | | |
| | (head to shell) | | | | | | | | |
| | 41- Steam Generator 1 | welds | 224 | Vol | 1 | 1 | 3 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | welds | 225 | Vol | 1 | | | | |
| | | | | | | | | | |
| C1.30 | TUBESHEET-TO-SHELL WELDS | | | | | | | | |
| | 41- Steam Generator 1 | welds | 224 | Vol | 1 | 1 | 3 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | welds | 225 | Vol | 1 | | | | |
| | | | | | | | | | |
| | REGENERATIVE HEAT EXCHANGER | | | | | | | | |
| C1.10 | SHELL CIRCUMFERENTIAL WELDS | | | | | | | | |
| | | | | | | | | | |
| | 68- Regenerative Heat Exchanger | welds | 79119 | Vol | 3 | 3 | 2 | | |
| | | | | | | | | | |
| C1.20 | HEAD CIRCUMFERENTIAL WELDS | | | | | | | | |
| | | | | | | | | | |
| | 68- Regenerative Heat Exchanger | welds | 79119 | Vol | 2 | 2 | 2 | | |
| | | | | | | | | | |
| C1.30 | TUBESHEET-TO-SHELL WELDS | | | | | | | | |
| | | | | | | | | | |
| | 68- Regenerative Heat Exchanger | welds | 79119 | Vol | 4 | 4 | 2 | | |
| | | | | | | | | | |
| | LETDOWN HEAT EXCHANGER | | | | | | | | |
| C1.10 | SHELL CIRCUMFERENTIAL WELDS | | | | | | | | |
| | | | | | | | | | |
| | 69- Letdown Heat Exchanger | welds | N2370 | Vol | 1 | 1 | 1 | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-B; PRESSURE RETAINING NOZZLE WELDS IN VESSELS** | | | | | | | | |
| C2.20 | NOZZLES WITHOUT REINFORCING | | | | | | | | |
| | PLATE IN VESSELS >1/2 IN. | | | | | | | | |
| | NOMINAL THICKNESS | | | | | | | | |
| C2.21 | NOZZLE-TO-SHELL (NOZZLE TO | | | | | | | | |
| | HEAD OR NOZZLE TO NOZZLE) | | | | | | | | |
| | WELD | | | | | | | | |
| | ***C2.21 running percent** | - | - | - | 20** | 2 | 1 | 20 | ** 20 Total, 10 REQ'D |
| | | | | | | 4 | 2 | 60 | multiple vessels |
| | | | | | | 4 | 3 | 100 | |
| | | | | | | | | | |
| | 41- Steam Generator 1 | welds | 224 | S & Vol | 8 | 4 | 3 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | welds | 225 | S & Vol | 8 | 4 | 2 | | |
| | | | | | | | | | |
| | 84- SDCHX A | welds | S-18341 | S & Vol | 2 | 2 | 1 | | |
| | | | | | | | | | |
| | 87- SDCHX B | welds | S-18342 | S & Vol | 2 | 0 | | | |
| | | | | | | | | | |
| C2.22 | NOZZLE INSIDE RADIUS SECTION | | | | | | | | |
| | ***C2.22 running percent** | - | - | - | 12** | 2 | 1 | 33 | ** 12 Total, 6 REQ'D |
| | | | | | | 2 | 2 | 67 | multiple vessels |
| | | | | | | 2 | 3 | 100 | |
| | | | | | | | | | |
| | 41- Steam Generator 1 | welds | 224 | Vol | 4 | 2 | 3 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | welds | 225 | Vol | 4 | 2 | 2 | | |
| | | | | | | | | | |
| | 84- SDCHX A | welds | S-18341 | Vol | 2 | 2 | 1 | | |
| | | | | | | | | | |
| | 87- SDCHX B | welds | S-18342 | Vol | 2 | 0 | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-C; WELDED ATTACHMENTS FOR VESSELS, PIPING, PUMPS, AND VALVES** | | | | | | | | |
| | PRESSURE VESSELS | | | | | | | | |
| C3.10 | WELDED ATTACHMENTS | | | | | | | | |
| | ***C3.10 running percent** | - | - | - | 6** | 2 | 1 | 50 | ** 6 Total; 4 REQD |
| | | | | | | 2 | 2 | 100 | Multiple Vessels |
| | | | | | | | | | |
| | 41- Steam Generator 1 | lugs | 224 | S | 2 | 2 | 1 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | lugs | 225 | S | 2 | | | | |
| | | | | | | | | | |
| | 68- Regenerative Heat Exchanger | supports | 79119 | S | 2 | 2 | 2 | | |
| | | | | | | | | | |
| | PIPING | | | | | | | | |
| C3.20 | WELDED ATTACHMENTS | | | | | | | | |
| | ***C3.20 running percent** | - | - | - | 288 | 10 | 1 | 3 | |
| | | | | | | 8 | 2 | 6 | |
| | | | | | | 14 | 3 | 11 | |
| | | | | | | | | | |
| | 43- Main Steam SG 1 East | attachment | SG-036 | S | 2 | | | | |
| | | | | | | | | | |
| | 44- Main Steam SG 1 West | attachment | SG-033 | S | 2 | | | | |
| | | | | | | | | | |
| | 45- Main Steam SG 2 East | attachment | SG-042 | S | 2 | 2 | 3 | | |
| | | | | | | | | | |
| | 46- Main Steam SG 2 West | attachment | SG-045 | S | 2 | | | | |
| | | | | | | | | | |
| | 54- Feedwater SG No. 1 | attachment | SG-002 | S | 6 | | | | |
| | | | | | | | | | |
| | 55- Feedwater SG No. 2 | attachment | SG-005 | S | 6 | 1 | 1 | | |
| | | | | | | | | | |
| | 56- Feedwater SG No. 1 | attachment | SG-202 | S | 1 | | | | |
| | | | | | | | | | |
| | 57- Feedwater SG No. 2 | attachment | SG-205 | S | 1 | | | | |
| | | | | | | | | | |
| | 58- Aux Feed S/G 1 | attachment | SG-008 | S | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 59- Aux Feed S/G 2 | attachment | SG-011 | S | 2 | | | | |
| | 62- Auxiliary Feedwater SG 1 | attachment | AF-018 | S | 1 | 1 | 1 | | |
| | 63- Auxiliary Feedwater SG 1 | attachment | AF-016 | S | 1 | | | | |
| | 64- Blowdown SG 1 | attachment | SG-039 | S | 6 | | | | |
| | | | SG-053 | | | | | | |
| | 65- Blowdown SG 2 | attachment | SG-048 | S | 8 | 1 | 2 | | |
| | | | SG-052 | | | | | | |
| | 70- LPSI Pump Room A Suction | attachment | SI-067 | S | 3 | | | | |
| | | | SI-241 | | | | | | |
| | | | SI-307 | | | | | | |
| | 71- LPSI Pump Room A Discharge | attachment | SI-078 | S | 4 | | | | |
| | | | SI-087 | | | | | | |
| | 73- LPSI Pump Room B Suction | attachment | SI-034 | S | 2 | | | | |
| | | | SI-308 | | | | | | |
| | 74- LPSI Pump Room B Discharge | attachment | SI-129 | S | 3 | | | | |
| | 76- CS Pump Room A Suction | attachment | SI-009 | S | 2 | | | | |
| | | | SI-067 | | | | | | |
| | 77- CS Pump Room A Discharge | attachment | SI-079 | S | 6 | 1 | 3 | | |
| | | | SI-082 | | | | | | |
| | 79- CS Pump Room B Suction | attachment | SI-033 | S | 1 | | | | |
| | | | SI-034 | | | | | | |
| | 80- CS Pump Room B Discharge | attachment | SI-119 | S | 4 | | | | |
| | 82- SDCHX Room A | attachment | SI-078 | S | 3 | | | | |
| | | | SI-079 | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 83- SDCHX Room A | attachment | SI-070 | S | 11 | 2 | 1 | | |
| | | | SI-082 | | | | | | |
| | | | SI-087 | | | | | | |
| | | | SI-089 | | | | | | |
| | | | SI-090 | | | | | | |
| | | | | | | | | | |
| | 85- SDCHX Room B | attachment | SI-119 | S | 6 | 1 | 2 | | |
| | | | SI-123 | | | | | | |
| | | | | | | | | | |
| | 86- SDCHX Room B | attachment | SI-072 | S | 12 | 2 | 3 | | |
| | | | SI-129 | | | | | | |
| | | | SI-134 | | | | | | |
| | | | SI-135 | | | | | | |
| | | | | | | | | | |
| | 88- East Wrap | attachment | SI-072 | S | 4 | | | | |
| | | | SI-073 | | | | | | |
| | | | | | | | | | |
| | 89- East Wrap | attachment | SI-173 | S | 3 | | | | |
| | | | SI-194 | | | | | | |
| | | | | | | | | | |
| | 90- East Wrap | attachment | SI-134 | S | 1 | | | | |
| | | | | | | | | | |
| | 91- West Wrap | attachment | SI-070 | S | 4 | | | | |
| | | | | | | | | | |
| | 92- West Wrap | attachment | SI-002 | S | 5 | 1 | 1 | | |
| | | | SI-239 | | | | | | |
| | | | SI-241 | | | | | | |
| | | | | | | | | | |
| | 93- West Wrap | attachment | SI-089 | S | 1 | | | | |
| | | | | | | | | | |
| | 94- A Train Pipe Chase & 88' | attachment | SI-070 | S | 9 | 1 | 2 | | |
| | | | SI-089 | | | | | | |
| | | | SI-241 | | | | | | |
| | | | | | | | | | |
| | 95- B Train Pipe Chase & 88' | attachment | SI-072 | S | 9 | 1 | 3 | | |
| | | | SI-134 | | | | | | |
| | | | SI-194 | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 96- Containment LPSI to 1A | attachment | SI-202 | S | 4 | | | | |
| | 97- Containment LPSI to 1B | attachment | SI-220 | S | 6 | | | | |
| | 98- Containment LPSI to 2A | attachment | SI-155 | S | 2 | | | | |
| | 99- Containment LPSI to 2B | attachment | SI-174 | S | 2 | | | | |
| | 100- Containment LPSI A Suction | attachment | SI-007 | S | 2 | | | | |
| | | | SI-369 | | | | | | |
| | 101- Containment LPSI B Suction | attachment | SI-030 | S | 3 | | | | |
| | | | SI-194 | | | | | | |
| | | | SI-368 | | | | | | |
| | 102- SI Pump Suction A | attachment | SI-008 | S | 9 | 1 | 1 | | |
| | | | SI-009 | | | | | | |
| | | | SI-307 | | | | | | |
| | 103- Refueling Water Suction A | attachment | CH-142 | S | 8 | 2 | 2 | | |
| | | | CH-424 | | | | | | |
| | 104- SI Pump Suction B | attachment | SI-031 | S | 4 | | | | |
| | | | SI-033 | | | | | | |
| | | | SI-308 | | | | | | |
| | 105- Refueling Water Suction B | attachment | CH-149 | S | 15 | 3 | 3 | | |
| | | | CH-425 | | | | | | |
| | 106- HPSI Room Discharge A | attachment | SI-099 | S | 19 | 1 | 1 | | |
| | | | SI-100 | | | | | | |
| | | | SI-105 | | | | | | |
| | | | SI-106 | | | | | | |
| | 107- HPSI Room Discharge B | attachment | SI-107 | S | 11 | 2 | 2 | | |
| | | | SI-112 | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 108- HPSI 88' Pipechase | attachment | SI-100 | S | 14 | 2 | 3 | | |
| | | | SI-118 | | | | | | |
| | | | | | | | | | |
| | 109- HPSI 88' Pipechase | attachment | SI-107 | S | 9 | 1 | 1 | | |
| | | | | | | | | | |
| | 110- HPSI Discharge West Wrap | attachment | SI-103 | S | 6 | | | | |
| | | | SI-107 | | | | | | |
| | | | SI-218 | | | | | | |
| | | | SI-236 | | | | | | |
| | | | | | | | | | |
| | 111- HPSI Discharge West Wrap | attachment | SI-100 | S | 2 | | | | |
| | | | | | | | | | |
| | 112- HPSI Discharge East Wrap | attachment | SI-100 | S | 4 | 1 | 2 | | |
| | | | SI-101 | | | | | | |
| | | | SI-102 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 113- HPSI Discharge | attachment | SI-107 | S | 4 | | | | |
| | | | SI-157 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 118- HPSI Long Term | attachment | SI-106 | S | 18 | 3 | 3 | | |
| | | | | | | | | | |
| | 119- HPSI Long Term | attachment | SI-114 | S | 12 | 2 | 1 | | |
| | | | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | PUMPS | | | | | | | | |
| C3.30 | WELDED ATTACHMENTS | | | | | | | | |
| | ***C3.30 running percent** | - | - | - | 20** | 1 | 3 | 10 | **20 Total, 10 REQ'D |
| | | | | | | | | | Multiple Vessels |
| | | | | | | | | | |
| | 72- LPSI Pump A | lugs | 0876-36 | S | 3 | | | | |
| | | | | | | | | | |
| | 75- LPSI Pump B | lugs | 0876-37 | S | 3 | | | | |
| | | | | | | | | | |
| | 78- Containment Spray A | lugs | 0876-38 | S | 3 | | | | |
| | | | | | | | | | |
| | 81- Containment Spray B | lugs | 0876-39 | S | 3 | | | | |
| | | | | | | | | | |
| | 116- HPSI A | lugs | 0776-14 | S | 4 | | | | |
| | | | | | | | | | |
| | 117- HPSI B | lugs | 0776-15 | S | 4 | 1 | 3 | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-D; PRESSURE RETAINING BOLTING GREATER THAN 2 in. IN DIAMETER** | | | | | | | | |
| | ***category running percent** | - | - | - | 10** | 1 | 1 | 33 | **10 total 3 required |
| | | | | | | 1 | 2 | 66 | Multiple Items |
| | | | | | | 1 | 3 | 100 | |
| | PUMPS | | | | | | | | |
| C4.30 | BOLTS AND STUDS | | | | | | | | |
| | | | | | | | | | |
| | 116- HPSI A | 16 studs | 0776-14 | VOL | 1 | | | | |
| | | | | | | | | | |
| | 117- HPSI B | 16 studs | 0776-15 | VOL | 1 | 1 | 1, 3 | | Examined in P1, reexamine in P3 due to PDI bolting issue, see CRDR 4486621 |
| | | | | | | | | | |
| | VALVES | | | | | | | | |
| C4.40 | BOLTS AND STUDS | | | | | | | | |
| | | | | | | | | | |
| | 47- Main Steam SG 1 West | 20 studs | UV-170 | VOL | 1 | 1 | 2 | | |
| | | | | | | | | | |
| | 48- Main Steam SG 1 East | 20 studs | UV-180 | VOL | 1 | | | | |
| | | | | | | | | | |
| | 49- Main Steam SG 2 East | 20 studs | UV-171 | VOL | 1 | | | | |
| | | | | | | | | | |
| | 50- Main Steam SG 2 West | 20 studs | UV-181 | VOL | 1 | | | | |
| | | | | | | | | | |
| | 56- Feedwater SG No. 1 | 20 studs | UV-132 | VOL | 1 | 1 | 3 | | |
| | | | UV-174 | | 1 | | | | |
| | | | | | | | | | |
| | 57- Feedwater SG No. 2 | 20 studs | UV-137 | VOL | 1 | | | | |
| | | | UV-177 | | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-F-1; PRESSURE RETAINING WELDS IN AUSTENITIC STAINLESS STEEL OR HIGH ALLOY PIPING** | | | | | | | | |
| C5.10 | PIPING WELDS ≥ 3/8 IN NOMINAL WALL THICKNESS FOR PIPING >NPS 4 | | | | | | | | |
| C5.11 | CIRCUMFERENTIAL WELD | | | | | | | | |
| | ***C5.11 running percent** | - | - | - | 522 | 17 | 1 | 2 | *1097 WELDS USED |
| | | | | | | 25 | 2 | 4 | FOR % DUE TO C-F-1 |
| | | | | | | 40 | 3 | 8 | Note 2 |
| | | | | | | | | | |
| | 58-Aux Feed S/G 1 | 6" x 0.562" | AF-004 | S & Vol | 29 | 4 | 1 | | |
| | | 6" x 0.432" | SG-008 | | | | | | |
| | | 8" x 0.500 | SG-008 | | | | | | |
| | | | | | | | | | |
| | 59-Aux Feed S/G 2 | 6" x 0.562" | AF-006 | S & Vol | 33 | 2 | 1 | | |
| | | 6" x 0.432" | SG-011 | | | 4 | 2 | | |
| | | 8" x 0.500 | SG-011 | | | | | | |
| | | | | | | | | | |
| | 62-Aux Feed S/G 1 | 6" x 0.562" | AF-004 | S & Vol | 20 | 3 | 3 | | |
| | | | AF-018 | | | | | | |
| | | | | | | | | | |
| | 63-Aux Feed S/G 2 | 6" x 0.562" | AF-006 | S & Vol | 18 | 3 | 1 | | |
| | | | AF-016 | | | | | | |
| | | | | | | | | | |
| | 70-LPSI Pump Room A Suction | 20" x 0.375 | SI-307 | S & Vol | 20 | 4 | 1 | | |
| | 73-LPSI Pump Room B Suction | | SI-308 | | | | | | |
| | | | | | | | | | |
| | 82 & 85 SDC Heat Exch | 20" x 0.500" | SI-078 | S & Vol | 8 | 2 | 2 | | |
| | Room A & B | | SI-123 | | | | | | |
| | | | | | | | | | |
| | 83 & 86 SDC Heat Exch | 14" x 0.375" | SI-90 | S & Vol | 54 | 7 | 2 | | |
| | Room A & B | | SI-135 | | | 8 | 3 | | MRP 192 Exams |
| | | 16" x 0.375" | SI-70 | | | | | | |
| | | | SI-72 | | | | | | |
| | | 20" x 0.500" | SI-70 | | | | | | |
| | | | SI-72 | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | 88 & 91 Safety Injection | 12" x 0.375" | SI-72 | S & Vol | 79 | 12 | 3 | | |
| | East and West Wraps | | SI-73 | | | | | | |
| | | | SI-70 | | | | | | |
| | | | SI-71 | | | | | | |
| | | 12" x 1.125" | SI-155 | | | | | | |
| | | | SI-174 | | | | | | |
| | | | SI-72 | | | | | | |
| | | | SI-73 | | | | | | |
| | | | SI-70 | | | | | | |
| | | | SI-71 | | | | | | |
| | | | SI-202 | | | | | | |
| | | | SI-220 | | | | | | |
| | | 20" x 0.500" | SI-72 | | | | | | |
| | | | SI-70 | | | | | | |
| | | | | | | | | | |
| | 90 & 93 Safety Injection | 24" x 0.375" | SI-30 | S & Vol | 10 | | | | |
| | East and West Wraps | | SI-7 | | | | | | |
| | | 24" x 0.562" | SI-308 | | | | | | |
| | | | SI-307 | | | | | | |
| | | | | | | | | | |
| | 94 & 95 Safety Injection A & B | 20" x 0.500 | SI-70 | S & Vol | 15 | 3 | 2 | | |
| | | | SI-72 | | | 2 | 3 | | MRP 192 Exams |
| | | | | | | | | | |
| | 96, 97, 98, 99 Containment LPSI | 12" x 1.125" | SI-202 | S & Vol | 108 | 14 | 3 | | |
| | Loop 1A, 1B, 2A & 2B | | SI-220 | | | 2 | 2 | | |
| | | | SI-155 | | | | | | |
| | | | SI-174 | | | | | | |
| | | 12" x 1.312" | SI-202 | | | | | | |
| | | | SI-220 | | | | | | |
| | | | SI-155 | | | | | | |
| | | | SI-174 | | | | | | |
| | | | | | | | | | |
| | 100 & 101 Containment LPSI | 16" x 1.594 | SI-241 | S & Vol | 8 | 1 | 2 | | |
| | Loop A & B, Suction | | SI-194 | | | | | | |
| | | 24" x 0.375 | SI-7 | | | | | | |
| | | | SI-30 | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 102-Safety Injection A Suction | 24" x 0.562" | SI-307 | S & Vol | 19 | 4 | 1 | | |
| | | 20" x 0.375" | SI-307 | | | | | | |
| | | | | | | | | | |
| | 103-Refueling Water Tank Suction A | 20" x 0.375" | CH-424 | S & Vol | 35 | 6 | 2 | | |
| | | 20" x 0.375" | CH-142 | | | | | | |
| | | | | | | | | | |
| | 104-Safety Injection B Suction | 24" x 0.562" | SI-308 | S & Vol | 19 | 4 | 3 | | |
| | | 20" x 0.375" | SI-308 | | | | | | |
| | | | | | | | | | |
| | 105-Refueling Water Tank B Suction | 20" x 0.375" | CH-425 | S & Vol | 47 | 7 | 3 | | |
| | | 20" x 0.375" | CH-149 | | | | | | |
| | | | | | | | | | |
| C5.20 | PIPING WELDS > 1/5 IN NOMINAL WALL THICKNESS FOR PIPING ≥ NPS 2 AND ≤ NPS 4 | | | | | | | | |
| C5.21 | CIRCUMFERENTIAL WELD | | | | | | | | |
| | ***C5.21 running percent** | - | - | - | 628 | 10 | 1 | 2 | |
| | | | | | | 18 | 2 | 5 | |
| | | | | | | 18 | 3 | 8 | |
| | | | | | | | | | |
| | 104 SI B Train Suction | 3" X 0.216" | CH-150 | S & Vol | 4 | 1 | 3 | | |
| | | | | | | | | | |
| | 106 & 107 HPSI Room Discharge | 4" x 0.438" | SI-100 | S & Vol | 139 | 10 | 1 | | |
| | A and B | 4" x 0.337" | SI-99 | | | | | | |
| | | | SI-107 | | | | | | |
| | | 3" x 0.438" | SI-106 | | | | | | |
| | | | SI-107 | | | | | | |
| | | 2" x 0.344" | SI-105 | | | | | | |
| | | | SI-112 | | | | | | |
| | | | | | | | | | |
| | 108 & 109 HPSI 88' Pipechase | 4" x 0.438" | SI-100 | S & Vol | 88 | 7 | 2 | | |
| | | 2" x 0344" | SI-118 | | | | | | |
| | | 4" x 0.377" | SI-107 | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 110 & 111 HPSI Discharge | 4" x 0.337" | SI-107 | S & Vol | 105 | 10 | 3 | | |
| | West Wrap | 4" x 0.438" | SI-218 | | | | | | |
| | | | SI-100 | | | | | | |
| | | | SI-236 | | | | | | |
| | | 3" x 0.438" | SI-218 | | | | | | |
| | | | SI-236 | | | | | | |
| | | 2" x 0.344" | SI-103 | | | | | | |
| | | | SI-107 | | | | | | |
| | | | SI-110 | | | | | | |
| | | | SI-218 | | | | | | |
| | | | SI-236 | | | | | | |
| | | | SI-100 | | | | | | |
| | | | | | | | | | |
| | 112 & 113 HPSI Discharge | 4" x 0.337" | SI-107 | S & Vol | 97 | 10 | 2 | | |
| | East Wrap | 4" x 0.438" | SI-100 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | SI-157 | | | | | | |
| | | 3" x 0.438" | SI-176 | | | | | | |
| | | | SI-157 | | | | | | |
| | | 2" x 0.344" | SI-101 | | | | | | |
| | | | SI-102 | | | | | | |
| | | | SI-108 | | | | | | |
| | | | SI-109 | | | | | | |
| | | | SI-157 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 114 & 115 HPSI Header | 3" x 0.438" | SI-218 | S & Vol | 45 | 3 | 2 | | |
| | Loop 1A, 1B, 2A & 2B | | SI-236 | | | | | | |
| | | | SI-157 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 118 & 119 HPSI Long Term | 3" x 0.438" | SI-106 | S & Vol | 106 | 9 | 3 | | |
| | | | SI-114 | | | | | | |
| | | 2" x 0.344" | SI-319 | | | | | | |
| | | | | | | | | | |
| | 126 AF Alternative Supply | 3" x 0.438" | AF-115 | S & Vol | 18 | | | | |
| | | | | | | | | | |
| | 127 AF Primary | 3" x 0.438" | AF-118 | S & Vol | 16 | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | 128 RCS Primary Discharge | 3" x 0.438" | SI-532 | S & Vol | 4 | | | | |
| | | | | | | | | | |
| | 129 RCS Alternative Discharge | 3" x 0.438" | SI-533 | S & Vol | 2 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| C5.30 | SOCKET WELDS | | | | | | | | |
| | 106 & 107 HPSI Room Discharge | 2" x 0.344" | SI-105 | S | 3 | 1 | 3 | 17 | |
| | A and B | | SI-112 | S | 3 | | | | |
| | | | | | | | | | |
| C5.40 | PIPE BRANCH CONNECTIONS OF BRANCH PIPING ≥ NPS 2 | | | | | | | | |
| C5.41 | CIRCUMFERENTIAL | | | | | | | | |
| | ***C5.41 running percent** | - | - | - | 27 | 1 | 1 | 4 | |
| | | | | | | 1 | 2 | 7 | |
| | | | | | | 1 | 3 | 11 | |
| | | | | | | | | | |
| | 82 & 85 SDC Heat Exch | 20" x 10" | SI-78 | S | 2 | 1 | 1 | | |
| | Room A & B | | SI-123 | S | 2 | | | | |
| | | | | | | | | | |
| | 83 & 86 SDC Heat Exch | 20" x 6" | SI-70 | S | 4 | 1 | 3 | | |
| | Room A & B | 20" x 10" | SI-72 | S | 4 | | | | |
| | | 20" x 14" | | | | | | | |
| | | | | | | | | | |
| | 88 & 91 Safety Injection | 20" x 12" | SI-70 | S | 1 | | | | |
| | East and West Wraps | | SI-72 | S | 1 | | | | |
| | | | | | | | | | |
| | 89 & 92 SDC Suction | 18" x 12" | SI-194 | S | 1 | | | | |
| | East and West Wraps | | SI-241 | S | 1 | | | | |
| | | | | | | | | | |
| | 96, 97, 98, 99 Containment LPSI | 12" x 3" | SI-202 | S | 1 | 1 | 2 | | |
| | Loop 1A, 1B, 2A & 2B | | SI-220 | S | 1 | | | | |
| | | | SI-155 | S | 1 | | | | |
| | | | SI-174 | S | 1 | | | | |
| | | | | | | | | | |
| | 102-Safety Injection A Suction | 24" x 10" | SI-307 | S | 3 | | | | |
| | | 24" x 18" | | | | | | | |
| | | 24" x 20" | | | | | | | |
| | | | | | | | | | |
| | 104-Safety Injection B Suction | 24" x 10" | SI-308 | S | 4 | | | | |
| | | 24" x 18" | | | | | | | |
| | | 24" x 20" | | | | | | | |
| | | 24" x 3" | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-F-2; PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL PIPING** | | | | | | | | ** Note exam items are in Aug Summary |
| C5.50 | PIPING WELDS ≥ 3/8 IN NOMINAL WALL THICKNESS FOR PIPING >NPS 4 | | | | | | | | |
| C5.51 | CIRCUMFERENTIAL WELD | | | | | | | | |
| | ***C5.51 running percent** | - | - | - | 325 | 8 | 1 | 2 | |
| | | | | | | 10 | 2 | 5 | |
| | | | | | | 10 | 3 | 8 | |
| | | | | | | | | | |
| | 43- Main Steam SG 1 East | Butt Welds | SG-36-28" | S & Vol | 19 | 1 | 1 | | |
| | | | SG-36-32" | | | | | | |
| | | | | | | | | | |
| | 44- Main Steam SG 1 West | Butt Welds | SG-33-28" | S & Vol | 21 | 2 | 2 | | |
| | | | SG-33-32" | | | | | | |
| | | | | | | | | | |
| | 45- Main Steam SG 2 East | Butt Welds | SG-42-28" | S & Vol | 19 | 1 | 3 | | |
| | | | SG-42-32" | | | | | | |
| | | | | | | | | | |
| | 46- Main Steam SG 2 West | Butt Welds | SG-45-28" | S & Vol | 21 | 2 | 1 | | |
| | | | SG-45-32" | | | | | | |
| | | | | | | | | | |
| | 47- Main Steam SG 1 West | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 48- Main Steam SG 1 East | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 49- Main Steam SG 2 East | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 50- Main Steam SG 2 West | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 51- Atmospheric Dump No. 1 | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 52- Atmospheric Dump No. 2 | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 53- Steam to Aux Feedwater | Butt Welds | ** | S & Vol | ** | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 54- Feedwater SG No. 1 | Butt Welds | SG-2-24" | S & Vol | 62 | 4 | 3 | | |
| | | | SG-2-16" | | | | | | |
| | | | SG-2-14" | | | | | | |
| | | | SG-13-16" | | | | | | |
| | | | SG-13-14" | | | | | | |
| | | | | | | | | | |
| | 55- Feedwater SG No. 2 | Butt Welds | SG-5-24" | S & Vol | 58 | 5 | 1 | | |
| | | | SG-5-16" | | | | | | |
| | | | SG-5-14" | | | | | | |
| | | | SG-14-16" | | | | | | |
| | | | SG-14-14" | | | | | | |
| | | | | | | | | | |
| | 56- Feedwater SG No. 1 | Butt Welds | SG-201-24" | S & Vol | ** | | | | |
| | | | SG-202-24" | | | | | | |
| | | | | | | | | | |
| | 57- Feedwater SG No. 2 | Butt Welds | SG-204-24" | S & Vol | ** | | | | |
| | | | SG-205-24" | | | | | | |
| | | | | | | | | | |
| | 58- Aux & Downcomer FW SG 1 | Butt Welds | SG-8-6" | S & Vol | 15 | 2 | 2 | | |
| | | | SG-8-8" | | | | | | |
| | | | | | | | | | |
| | 59- Aux & Downcomer FW SG 2 | Butt Welds | SG-11-6" | S & Vol | 11 | 2 | 3 | | |
| | | | SG-11-8" | | | | | | |
| | | | | | | | | | |
| | 60- Downcomer Feedwater SG 1 | Butt Welds | SG-200-8" | S & Vol | ** | | | | |
| | | | SG-008-8" | | | | | | |
| | | | | | | | | | |
| | 61- Downcomer Feedwater SG 2 | Butt Welds | SG-203-8" | S & Vol | ** | | | | |
| | | | SG-11-8" | | | | | | |
| | | | | | | | | | |
| | 64- Blowdown SG 1 | Butt Welds | SG-39-6" | S & Vol | 50 | 5 | 2 | | |
| | | | SG-53-6" | | | | | | |
| | | | SG-522-6" | | | | | | |
| | | | | | | | | | |
| | 65- Blowdown SG 2 | Butt Welds | SG-48-6" | S & Vol | 49 | 4 | 3 | | |
| | | | SG-52-6" | | | | | | |
| | | | SG-523-6" | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 66- Blowdown SG 1 | Butt Welds | SG-39-6" | S & Vol | ** | | | | |
| | | | | | | | | | |
| | 67- Blowdown SG 2 | Butt Welds | SG -48-6" | S & Vol | ** | | | | |
| | | | | | | | | | |
| C5.80 | PIPE BRANCH CONNECTIONS OF BRANCH PIPING ≥ NPS 2 | | | | | | | | |
| C5.81 | CIRCUMFERENTIAL | | | | | | | | |
| | ***category running percent** | | | | 30 | 7 | 1 | 23 | |
| | | | | | | 1 | 2 | 26 | |
| | | | | | | 1 | 3 | 30 | |
| | | | | | | | | | |
| | 47- Main Steam SG 1 West | 28" x 12" | SG-206-28" | S & Vol | 7 | 7 | 1 | | |
| | | 28" x 6" | | | | | | | |
| | | | | | | | | | |
| | 48- Main Steam SG 1 East | 28" x 12" | SG-207-28" | S & Vol | 8 | 1 | 2 | | |
| | | 28" x 6" | | | | | | | |
| | | | | | | | | | |
| | 49- Main Steam SG 2 East | 28" x 12" | SG-208-28" | S & Vol | 8 | | | | |
| | | 28" x 6" | | | | | | | |
| | | | | | | | | | |
| | 50- Main Steam SG 2 West | 28" x 12" | SG-209-28" | S & Vol | 7 | 1 | 3 | | |
| | | 28" x 6" | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-G; PRESSURE RETAINING WELDS IN PUMPS AND VALVES** | | | | | | | | EXAM CATEGORY C-G DELETED IN THE 2007 ED 2008 ADD |
| | | | | | | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY C-H; ALL PRESSURE RETAINING COMPONENTS** | | | | | | | | Pressure Test Program |
| | | | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY F-A; SUPPORTS** | | | | | | | | |
| F1.20 | CLASS 2 PIPING SUPPORTS | | | | | | | | |
| | A-ONE DIRECTIONAL (RODS) | | | | | | | | |
| | ***F-A; A running percent** | - | - | - | 3 | 1 | 2 | 33 | |
| | | | | | | | | | |
| | 83- SDCHX Room A | supports | SI-87 | VT-3 | 1 | 1 | 2 | | |
| | | | | | | | | | |
| | 106- HPSI Room Discharge A | supports | SI-100 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 107- HPSI Room Discharge B | supports | SI-107 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| F1.20 | CLASS 2 PIPING SUPPORTS | | | | | | | | |
| | B-MULTIDIRECTIONAL | | | | | | | | |
| | ***F-A; B running percent** | - | - | - | 425 | 17 | 1 | 4 | |
| | | | | | | 15 | 2 | 7 | |
| | | | | | | 33 | 3 | 15 | |
| | | | | | | | | | |
| | 43- Main Steam SG 1 East | supports | SG-36 | VT-3 | 1 | 1 | 1 | | |
| | | | | | | | | | |
| | 44- Main Steam SG 1 West | supports | SG-33 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 45- Main Steam SG 2 East | supports | SG-42 | VT-3 | 1 | 1 | 3 | | |
| | | | | | | | | | |
| | 46- Main Steam SG 2 West | supports | SG-45 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 54- Feedwater SG No. 1 | supports | SG-002 | VT-3 | 5 | 1 | 1 | | |
| | | | | | | | | | |
| | 55- Feedwater SG No. 2 | supports | SG-005 | VT-3 | 5 | 1 | 1 | | |
| | | | | | | | | | |
| | 58- Aux & Downcomer FW SG 1 | supports | SG-8 | VT-3 | 5 | 1 | 2 | | |
| | | | | | | | | | |
| | 59- Aux & Downcomer FW SG 2 | supports | SG-11 | VT-3 | 6 | 1 | 2 | | |
| | | | | | | | | | |
| | 62- Auxiliary Feedwater SG 1 | supports | AF-018 | VT-3 | 1 | 1 | 1 | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 63- Auxiliary Feedwater SG 2 | supports | AF-006 | VT-3 | 3 | | | | |
| | | | AF-016 | | | | | | |
| | | | | | | | | | |
| | 64- Blowdown SG 1 | supports | SG-39 | VT-3 | 11 | 1 | 1 | | |
| | | | SG-53 | VT-3 | | | | | |
| | | | | | | | | | |
| | 65- Blowdown SG 2 | supports | SG-48 | VT-3 | 11 | 1 | 2 | | |
| | | | SG-52 | VT-3 | | | | | |
| | | | | | | | | | |
| | 70- LPSI Pump Room A Suction | supports | SI-067 | VT-3 | 3 | | | | |
| | | | SI-241 | | | | | | |
| | | | SI-307 | | | | | | |
| | | | | | | | | | |
| | 71- LPSI Pump Room A Discharge | supports | SI-87 | VT-3 | 5 | 2 | 3 | | |
| | | | SI-78 | | | | | | |
| | | | | | | | | | |
| | 73- LPSI Pump Room B Suction | supports | SI-034 | VT-3 | 3 | | | | |
| | | | SI-308 | | | | | | |
| | | | | | | | | | |
| | 74- LPSI Pump Room B Discharge | supports | SI-129 | VT-3 | 3 | | | | |
| | | | | | | | | | |
| | 76- CS Pump Room A Suction | supports | SI-9 | VT-3 | 4 | | | | |
| | | | SI-67 | | | | | | |
| | | | | | | | | | |
| | 77- CS Pump Room A Discharge | supports | SI-79 | VT-3 | 7 | 2 | 3 | | |
| | | | SI-82 | | | | | | |
| | | | | | | | | | |
| | 79- CS Pump Room B Suction | supports | SI-033 | VT-3 | 3 | 1 | 3 | | |
| | | | SI-034 | | | | | | |
| | | | | | | | | | |
| | 80- CS Pump Room B Discharge | supports | SI-119 | VT-3 | 5 | 2 | 3 | | |
| | | | | | | | | | |
| | 82- SDCHX Room A | supports | SI-78 | VT-3 | 2 | | | | |
| | | | SI-79 | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 83- SDCHX Room A | supports | SI-70 | VT-3 | 13 | 1 | 1 | | |
| | | | SI-82 | VT-3 | | | | | |
| | | | SI-87 | VT-3 | | | | | |
| | | | SI-89 | VT-3 | | | | | |
| | | | SI-90 | VT-3 | | | | | |
| | | | | | | | | | |
| | 85- SDCHX Room B | supports | SI-119 | VT-3 | 8 | 1 | 2 | | |
| | | | SI-123 | | | | | | |
| | | | | | | | | | |
| | 86- SDCHX Room B | supports | SI-72 | VT-3 | 10 | 4 | 3 | | |
| | | | SI-129 | VT-3 | | | | | |
| | | | SI-134 | VT-3 | | | | | |
| | | | SI-135 | VT-3 | | | | | |
| | | | SI-147 | VT-3 | | | | | |
| | | | | | | | | | |
| | 88- East Wrap | supports | SI-72 | VT-3 | 5 | 2 | 3 | | |
| | | | SI-73 | VT-3 | | | | | |
| | | | | | | | | | |
| | 89- East Wrap | supports | SI-38 | VT-3 | 5 | 1 | 1 | | |
| | | | SI-173 | VT-3 | | | | | |
| | | | SI-194 | VT-3 | | | | | |
| | | | | | | | | | |
| | 90- East Wrap | supports | SI-130 | VT-3 | 3 | | | | |
| | | | SI-134 | | | | | | |
| | | | | | | | | | |
| | 91- West Wrap | supports | SI-70 | VT-3 | 7 | 1 | 1 | | |
| | | | SI-71 | VT-3 | | | | | |
| | | | | | | | | | |
| | 92- West Wrap | supports | SI-2 | VT-3 | 8 | 1 | 1 | | |
| | | | SI-241 | VT-3 | | | | | |
| | | | | | | | | | |
| | 93- West Wrap | supports | SI-89 | VT-3 | 3 | | | | |
| | | | | | | | | | |
| | 94- A Train Pipe Chase & 88' | supports | SI-70 | VT-3 | 14 | 1 | 2 | | |
| | | | SI-89 | VT-3 | | | | | |
| | | | SI-241 | VT-3 | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 95- B Train Pipe Chase & 88' | supports | SI-194 | VT-3 | 14 | 3 | 3 | | |
| | | | SI-72 | VT-3 | | | | | |
| | | | SI-134 | VT-3 | | | | | |
| | | | | | | | | | |
| | 96- Containment LPSI to 1A | supports | SI-202 | VT-3 | 7 | 1 | 2 | | |
| | | | | | | | | | |
| | 97- Containment LPSI to 1B | supports | SI-220 | VT-3 | 14 | 2 | 2 | | |
| | | | | | | | | | |
| | 98- Containment LPSI to 2A | supports | SI-155 | VT-3 | 4 | | | | |
| | | | | | | | | | |
| | 99- Containment LPSI to 2B | supports | SI-174 | VT-3 | 5 | | | | |
| | | | | | | | | | |
| | 100- Containment LPSI A Suction | supports | SI-7 | VT-3 | 2 | | | | |
| | | | SI-369 | VT-3 | | | | | |
| | | | | | | | | | |
| | 101- Containment LPSI B Suction | supports | SI-30 | VT-3 | 4 | | | | |
| | | | SI-194 | VT-3 | | | | | |
| | | | SI-368 | VT-3 | | | | | |
| | | | | | | | | | |
| | 102- SI Pump Suction A | supports | SI-8 | VT-3 | 15 | 2 | 1 | | |
| | | | SI-9 | VT-3 | | | | | |
| | | | SI-307 | VT-3 | | | | | |
| | | | | | | | | | |
| | 103- Refueling Water Suction A | supports | CH-142 | VT-3 | 14 | 2 | 2 | | |
| | | | CH-424 | VT-3 | | | | | |
| | | | | | | | | | |
| | 104- SI Pump Suction B | supports | SI-31 | VT-3 | 12 | 3 | 3 | | |
| | | | SI-33 | VT-3 | | | | | |
| | | | SI-308 | VT-3 | | | | | |
| | | | | | | | | | |
| | 105- Refueling Water Suction B | supports | CH-149 | VT-3 | 19 | 3 | 3 | | |
| | | | CH-425 | VT-3 | | | | | |
| | | | | | | | | | |
| | 106- HPSI Room Discharge A | supports | SI-100 | VT-3 | 18 | 1 | 1 | | |
| | | | SI-105 | | | | | | |
| | | | SI-106 | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 107- HPSI Room Discharge B | supports | SI-107 | VT-3 | 13 | 3 | 2 | | |
| | | | SI-112 | | | | | | |
| | | | | | | | | | |
| | 108- HPSI 88' Pipechase | supports | SI-100 | VT-3 | 16 | 2 | 3 | | |
| | | | SI-118 | | | | | | |
| | | | | | | | | | |
| | 109- HPSI 88' Pipechase | supports | SI-107 | VT-3 | 11 | 1 | 1 | | |
| | | | | | | | | | |
| | 110- HPSI Discharge West Wrap | supports | SI-103 | VT-3 | 13 | | | | |
| | | | SI-107 | | | | | | |
| | | | SI-110 | | | | | | |
| | | | SI-218 | | | | | | |
| | | | SI-236 | | | | | | |
| | | | | | | | | | |
| | 111- HPSI Discharge West Wrap | supports | SI-100 | VT-3 | 5 | 1 | 3 | | |
| | | | SI-236 | | | | | | |
| | | | | | | | | | |
| | 112- HPSI Discharge East Wrap | supports | SI-100 | VT-3 | 10 | 1 | 2 | | |
| | | | SI-101 | | | 3 | 3 | | |
| | | | SI-102 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 113- HPSI Discharge | supports | SI-107 | VT-3 | 10 | 1 | 1 | | |
| | | | SI-108 | | | | | | |
| | | | SI-109 | | | | | | |
| | | | SI-157 | | | | | | |
| | | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 114 HPSI Header | supports | SI-218 | VT-3 | 2 | 1 | 2 | | |
| | Loop 1A & 1B | | SI-236 | | | | | | |
| | | | | | | | | | |
| | 115 HPSI Header | supports | SI-157 | VT-3 | 2 | | | | |
| | Loop 2A & 2B | | SI-176 | | | | | | |
| | | | | | | | | | |
| | 118 - HPSI Long Term | supports | SI-106 | VT-3 | 22 | 4 | 3 | | |
| | | | | | | | | | |
| | 119 - HPSI Long Term | supports | SI-114 | VT-3 | 19 | 3 | 1 | | |
| | | | SI-319 | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | 126 - AF Alternative Supply | supports | AF-115 | VT-3 | 5 | | | | |
| | | | | | | | | | |
| | 127 - AF Primary | supports | AF-118 | VT-3 | 5 | | | | |
| | | | | | | | | | |
| | 128 - RCS Primary Discharge | supports | SI-532 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 129 - RCS Alternative Discharge | supports | SI-533 | VT-3 | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| F1.20 | CLASS 2 PIPING SUPPORTS | | | | | | | | |
| | C-SUPPORTS THAT ALLOW | | | | | | | | |
| | THERMAL MOVEMENT (SPRING) | | | | | | | | |
| | ***F-A; C running percent** | - | - | - | 186 | 6 | 1 | 3 | |
| | | | | | | 11 | 2 | 9 | |
| | | | | | | 13 | 3 | 16 | |
| | | | | | | | | | |
| | 43- Main Steam SG 1 East | supports | SG-36 | VT-3 | 1 | 1 | 1 | | |
| | | | | | | | | | |
| | 44- Main Steam SG 1 West | supports | SG-33 | VT-3 | 2 | 2 | 1 | | |
| | | | | | | | | | |
| | 45- Main Steam SG 2 East | supports | SG-42 | VT-3 | 2 | 1 | 1 | | |
| | | | | | | | | | |
| | 46- Main Steam SG 2 West | supports | SG-45 | VT-3 | 2 | 1 | 1 | | |
| | | | | | | | | | |
| | 47- Main Steam SG 1 West | supports | SG-206 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 48- Main Steam SG 1 East | supports | SG-207 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 49- Main Steam SG 2 East | supports | SG-208 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 50- Main Steam SG 2 West | supports | SG-209 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 51- Atmospheric Dump No. 1 | supports | SG-59 | VT-3 | 2 | | | | |
| | | | SG-70 | | | | | | |
| | | | | | | | | | |
| | 52- Atmospheric Dump No. 2 | supports | SG-84 | VT-3 | 2 | | | | |
| | | | SG-103 | | | | | | |
| | | | | | | | | | |
| | 54- Feedwater SG No. 1 | supports | SG-002 | VT-3 | 9 | | | | |
| | | | SG-013 | VT-3 | | | | | |
| | | | | | | | | | |
| | 55- Feedwater SG No. 2 | supports | SG-005 | VT-3 | 10 | 1 | 1 | | |
| | | | SG-014 | | | | | | |
| | | | | | | | | | |
| | 56- Feedwater SG No. 1 | supports | SG-202 | VT-3 | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 57- Feedwater SG No. 2 | supports | SG-205 | VT-3 | 1 | | | | |
| | 58- Aux & Downcomer FW SG 1 | supports | SG-8 | VT-3 | 11 | 2 | 3 | | |
| | | | AF-4 | VT-3 | | | | | |
| | 59- Aux & Downcomer FW SG 2 | supports | SG-11 | VT-3 | 11 | 4 | 2 | | |
| | | | AF-6 | VT-3 | | | | | |
| | 60- Downcomer Feedwater SG 1 | supports | SG-200 | VT-3 | 2 | | | | |
| | 61- Downcomer Feedwater SG 2 | supports | SG-203 | VT-3 | 2 | | | | |
| | 62- Auxiliary Feedwater SG 1 | supports | AF-018 | VT-3 | 2 | | | | |
| | | | AF-4 | VT-3 | | | | | |
| | 63- Auxiliary Feedwater SG 2 | supports | AF-006 | VT-3 | 2 | | | | |
| | 64- Blowdown SG 1 | supports | SG-39 | VT-3 | 5 | 1 | 2 | | |
| | 65- Blowdown SG 2 | supports | SG-48 | VT-3 | 3 | 1 | 2 | | |
| | 71- LPSI Pump Room A Discharge | supports | SI-78 | VT-3 | 1 | | | | |
| | 74- LPSI Pump Room B Discharge | supports | SI-129 | VT-3 | 3 | 1 | 3 | | |
| | 77- CS Pump Room A Discharge | supports | SI-79 | VT-3 | 2 | | | | |
| | 79- CS Pump Room B Suction | supports | SI-034 | VT-3 | 1 | | | | |
| | 80- CS Pump Room B Discharge | supports | SI-119 | VT-3 | 5 | 1 | 2 | | |
| | | | SI-147 | | | | | | |
| | 82- SDCHX Room A | supports | SI-78 | VT-3 | 1 | | | | |
| | 83- SDCHX Room A | supports | SI-70 | VT-3 | 5 | | | | |
| | | | SI-87 | VT-3 | | | | | |
| | | | SI-90 | VT-3 | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 85- SDCHX Room B | supports | SI-119 | VT-3 | 2 | | | | |
| | | | SI-123 | | | | | | |
| | | | | | | | | | |
| | 86- SDCHX Room B | supports | SI-72 | VT-3 | 15 | 4 | 3 | | |
| | | | SI-129 | | | | | | |
| | | | SI-134 | | | | | | |
| | | | SI-135 | | | | | | |
| | | | | | | | | | |
| | 88- East Wrap | supports | SI-72 | VT-3 | 9 | 1 | 3 | | |
| | | | SI-73 | | | | | | |
| | | | | | | | | | |
| | 89- East Wrap | supports | SI-194 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 91- West Wrap | supports | SI-70 | VT-3 | 3 | | | | |
| | | | SI-71 | | | | | | |
| | | | | | | | | | |
| | 92- West Wrap | supports | SI-239 | VT-3 | 4 | | | | |
| | | | SI-241 | VT-3 | | | | | |
| | | | | | | | | | |
| | 93- West Wrap | supports | SI-89 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 94- A Train Pipe Chase & 88' | supports | SI-89 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 95- B Train Pipe Chase & 88' | supports | SI-72 | VT-3 | 4 | 1 | 3 | | |
| | | | SI-194 | | | | | | |
| | | | | | | | | | |
| | 96- Containment LPSI to 1A | supports | SI-202 | VT-3 | 11 | 3 | 2 | | |
| | | | | | | | | | |
| | 97- Containment LPSI to 1B | supports | SI-220 | VT-3 | 12 | 3 | 3 | | |
| | | | | | | | | | |
| | 99- Containment LPSI to 2B | supports | SI-174 | VT-3 | 2 | | | | |
| | | | | | | | | | |
| | 100- Containment LPSI A Suction | supports | SI-241 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 101- Containment LPSI B Suction | supports | SI-194 | VT-3 | 1 | | | | |
| | | | | | | | | | |
| | 102- SI Pump Suction A | supports | SI-307 | VT-3 | 1 | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 104- SI Pump Suction B | supports | SI-308 | VT-3 | 1 | | | | |
| | 106- HPSI Room Discharge A | supports | SI-99 | VT-3 | 3 | | | | |
| | | | SI-100 | | | | | | |
| | 107- HPSI Room Discharge B | supports | SI-107 | VT-3 | 3 | 1 | 2 | | |
| | 108- HPSI 88' Pipechase | supports | SI-100 | VT-3 | 2 | | | | |
| | | | SI-118 | | | | | | |
| | 109- HPSI 88' Pipechase | supports | SI-107 | VT-3 | 3 | | | | |
| | 110- HPSI Discharge West Wrap | supports | SI-107 | VT-3 | 4 | 1 | 3 | | |
| | | | SI-218 | | | | | | |
| | 111- HPSI Discharge West Wrap | supports | SI-236 | VT-3 | 1 | | | | |
| | 113- HPSI Discharge | supports | SI-157 | VT-3 | 1 | | | | |
| | 118 - HPSI Long Term | supports | SI-106 | VT-3 | 2 | | | | |
| | 119 - HPSI Long Term | supports | SI-114 | VT-3 | 4 | | | | |
| | | | SI-319 | | | | | | |
| | 120- Containment Spray A | supports | SI-88 | VT-3 | 1 | | | | |
| | 121- Containment Spray B | supports | SI-130 | VT-3 | 1 | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| F1.40 | SUPPORTS OTHER THAN | | | | | | | | |
| | PIPING SUPPORTS | | | | | | | | |
| | ***F-A; B running percent** | - | - | - | 22** | 2 | 1 | 20 | **22 Total, 12 REQ'D |
| | | | | | | 4 | 2 | 50 | Multiple Items |
| | | | | | | 6 | 3 | 100 | |
| | | | | | | | | | |
| | 68- Regenerative Heat Exchanger | supports | 79119 | VT-3 | 2 | 2 | 2 | | |
| | | | | | | | | | |
| | 72- LPSI Pump A | supports | 0876-36 | VT-3 | 3 | 3 | 3 | | |
| | | | | | | | | | |
| | 75- LPSI Pump B | supports | 0876-37 | VT-3 | 3 | | | | |
| | | | | | | | | | |
| | 78- CS Pump A | supports | 0876-38 | VT-3 | 3 | | | | |
| | | | | | | | | | |
| | 81- CS Pump B | supports | 0876-39 | VT-3 | 3 | 3 | 3 | | |
| | | | | | | | | | |
| | 116- HPSI Pump A | supports | 0776-14 | VT-3 | 4 | 2 | 1 | | |
| | | | | | | | | | |
| | 117- HPSI Pump B | supports | 0776-15 | VT-3 | 4 | 2 | 2 | | |
| | | | | | | | | | |
| F1.40 | SUPPORTS OTHER THAN | | | | | | | | |
| | PIPING SUPPORTS | | | | | | | | |
| | ***F-A; C running percent** | - | - | - | 4** | 1 | 1 | 50 | **4 Total, 2 REQ'D |
| | | | | | | 1 | 3 | 100 | Multiple Items |
| | | | | | | | | | |
| | 41- Steam Generator 1 | snubbers | 224 | VT-3 | 2 | 1 | 1 | | |
| | | | | | | | | | |
| | 42- Steam Generator 2 | snubbers | 225 | VT-3 | 2 | 1 | 3 | | |
| | | | | | | | | | |

# SECTION 6.0
# ASME CLASS 3
# EXAMINATION SUMMARY

## INDEX

| EXAM CATEGORY | |
|---|---|
| D-A | Welded Attachments for Vessels, Piping, Pumps and Valves |
| D-B | All Pressure Retaining Components |
| F-A | Class 3 Supports |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY D-A; WELDED ATTACHMENTS FOR VESSELS, PIPING, PUMPS, AND VALVES** | | | | | | | | |
| | Pressure Vessels | | | | | | | | |
| D1.10 | Welded Attachments | | | | | | | | |
| | ***D1.10; running percent** | - | - | - | 22** | 2 | 1 | 20 | **10 req'd due to |
| | | | | | | 3 | 2 | 50 | multiple comp |
| | | | | | | 6 | 3 | 100 | |
| | | | | | | | | | |
| | DF System | attachments | DFA-T02 | VT-1 | 2 | 1 | 3 | | |
| | | | DFB-T02 | | | | | | |
| | | | | | | | | | |
| | DG System | attachments | DGA-E04 | VT-1 | 8 | 1 | 1 | | |
| | | | DGA-E05 | | | 2 | 2 | | |
| | | | DGB-E04 | | | 1 | 3 | | |
| | | | DGB-E05 | | | | | | |
| | | | DGA-X01A | | | | | | |
| | | | DGA-X01B | | | | | | |
| | | | DGB-X01A | | | | | | |
| | | | DGB-X01B | | | | | | |
| | | | | | | | | | |
| | EC System | attachments | ECA-E-1 | VT-1 | 4 | 2 | 3 | | |
| | | | ECA-T-1 | | | | | | |
| | | | ECB-E-1 | | | | | | |
| | | | ECB-T-1 | | | | | | |
| | | | | | | | | | |
| | EW System | attachments | EWA-E01 | VT-1 | 4 | 1 | 1 | | |
| | | | EWA-T01 | | | 1 | 3 | | |
| | | | EWB-E01 | | | | | | |
| | | | EWB-T01 | | | | | | |
| | | | | | | | | | |
| | PC System | attachments | PCA-E1 | VT-1 | 2 | 1 | 2 | | |
| | | | PCB-E1 | | | | | | |
| | | | | | | | | | |
| | SI System | attachments | SIA-E01 | VT-1 | 2 | 1 | 3 | | |
| | | | SIB-E01 | | | | | | |
| | | | | | | | | | |
| | Piping | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| D1.20 | Welded Attachments | | | | | | | | |
| | ***D1.20; running percent** | - | - | - | 245* | 9 | 1 | 4 | |
| | | | | | | 12 | 2 | 9 | |
| | | | | | | 12 | 3 | 13 | |
| | | | | | | | | | |
| | AF System | attachments | piping | VT-1 | 9 | 1 | 1 | | |
| | | | | | | | | | |
| | CT System | attachments | piping | VT-1 | 4* | 1 | 1 | | *Added CT-44-H-1-W |
| | | | | | | | | | per AI 16-13150-004. |
| | DG System | attachments | piping | VT-1 | 10 | 2 | 3 | | |
| | DG JW & LO Skid | attachments | piping | VT-1 | 4 | | | | |
| | | | | | | | | | |
| | EC System | attachments | piping | VT-1 | 14 | 1 | 1 | | |
| | | | | | | 1 | 3 | | |
| | | | | | | | | | |
| | EW System | attachments | piping | VT-1 | 37 | 3 | 1 | | |
| | | | | | | 2 | 2 | | |
| | | | | | | | | | |
| | NC System | attachments | piping | VT-1 | 19 | 2 | 1 | | |
| | | | | | | 1 | 3 | | |
| | | | | | | | | | |
| | PC System | attachments | piping | VT-1 | 13 | 1 | 1 | | |
| | | | | | | 1 | 3 | | |
| | | | | | | | | | |
| | SG System | attachments | piping | VT-1 | 4 | 1 | 2 | | |
| | | | | | | | | | |
| | SI System | attachments | piping | VT-1 | 2 | 1 | 2 | | |
| | | | | | | | | | |
| | SP System | attachments | piping | VT-1 | 129 | 8 | 2 | | |
| | | | | | | 7 | 3 | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY D-B; ALL PRESSURE RETAINING COMPONENTS** | | | | | | | | Pressure Test Program |
| | | | | | | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY F-A; SUPPORTS** | | | | | | | | |
| **F1.30** | **CLASS 3 PIPING SUPPORTS** | | | | | | | | |
| | **B-MULTIDIRECTIONAL RESTRAINTS** | | | | | | | | |
| | ***F-A; B running percent** | - | - | - | 321 | 11 | 1 | 3 | |
| | | | | | | 14 | 2 | 8 | |
| | | | | | | 15 | 3 | 13 | |
| | | | | | | | | | |
| | AF System | supports | piping | VT-3 | 18 | 1 | 1 | | |
| | | | | | | 2 | 2 | | |
| | | | | | | | | | |
| | CT System | supports | piping | VT-3 | 4* | 1 | 2 | | *Added CT-44-H-1 |
| | | | | | | | | | per AI 16-13150-004. |
| | DG System | supports | piping | VT-3 | 8 | 2 | 3 | | |
| | DG JW & LO Skid | supports | piping | VT-3 | 22 | | | | |
| | | | | | | | | | |
| | EC System | supports | piping | VT-3 | 16 | 2 | 3 | | |
| | | | | | | | | | |
| | EW System | supports | piping | VT-3 | 67 | 6 | 1 | | |
| | | | | | | 3 | 2 | | |
| | | | | | | | | | |
| | NC System | supports | piping | VT-3 | 35 | 2 | 1 | | |
| | | | | | | 3 | 3 | | |
| | | | | | | | | | |
| | PC System | supports | piping | VT-3 | 17 | 1 | 1 | | |
| | | | | | | 1 | 3 | | |
| | | | | | | | | | |
| | SG System | supports | piping | VT-3 | 4 | 1 | 1 | | |
| | | | | | | | | | |
| | SI System | supports | piping | VT-3 | 5 | 1 | 2 | | |
| | | | | | | | | | |
| | SP System | supports | piping | VT-3 | 125 | 7 | 2 | | |
| | | | | | | 7 | 3 | | |
| | | | | | | | | | |
| **F1.30** | **CLASS 3 PIPING SUPPORTS** | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | C-SUPPORTS THAT ALLOW | | | | | | | | |
| | THERMAL MOVEMENT | | | | | | | | |
| | ***F-A; C running percent** | - | - | - | 56 | 5 | 1 | 8 | |
| | | | | | | 4 | 2 | 16 | |
| | | | | | | 5 | 3 | 25 | |
| | | | | | | | | | |
| | AF System | supports | piping | VT-3 | 10 | 1 | 2 | | |
| | | | | | | | | | |
| | DG System | supports | piping | VT-3 | 4 | 1 | 3 | | |
| | | | | | | | | | |
| | EC System | supports | piping | VT-3 | 2 | 1 | 3 | | |
| | | | | | | | | | |
| | EW System | supports | piping | VT-3 | 9 | 2 | 1 | | |
| | | | | | | | | | |
| | NC System | supports | piping | VT-3 | 1 | 1 | 1 | | |
| | | | | | | | | | |
| | PC System | supports | piping | VT-3 | 13 | 2 | 1 | | |
| | | | | | | 1 | 2 | | |
| | | | | | | 1 | 3 | | |
| | | | | | | | | | |
| | SG System | supports | piping | VT-3 | 7 | 2 | 2 | | |
| | | | | | | | | | |
| | SI System | supports | piping | VT-3 | 1 | 1 | 3 | | |
| | | | | | | | | | |
| | SP System | supports | piping | VT-3 | 9 | 1 | 3 | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| F1.40 | SUPPORTS OTHER THAN | | | | | | | | |
| | PIPING SUPPORTS | | | | | | | | |
| | *F-A; B running percent | - | - | - | 22** | 2 | 1 | 20 | **10 req'd due to |
| | | | | | | 3 | 2 | 50 | multiple comp |
| | | | | | | 5 | 3 | 100 | |
| | | | | | | | | | |
| | DF System | supports | DFA-T02 | VT-3 | 2 | 1 | 3 | | |
| | | | DFB-T02 | | | | | | |
| | | | | | | | | | |
| | DG System | supports | DGA-E04 | VT-3 | 8 | 1 | 1 | | |
| | | | DGB-E04 | | | 1 | 2 | | |
| | | | DGA-E05 | | | 1 | 3 | | |
| | | | DGB-E05 | | | | | | |
| | | | DGA-X01A | | | | | | |
| | | | DGA-X01B | | | | | | |
| | | | DGB-X01A | | | | | | |
| | | | DGB-X01B | | | | | | |
| | | | | | | | | | |
| | EC System | attachments | ECA-E-1 | VT-3 | 4 | 2 | 3 | | |
| | | | ECB-E-1 | | | | | | |
| | | | ECA-T-1 | | | | | | |
| | | | ECB-T-1 | | | | | | |
| | | | | | | | | | |
| | EW System | attachments | EWA-E01 | VT-3 | 4 | 1 | 1 | | |
| | | | EWB-E01 | | | 1 | 2 | | |
| | | | EWA-T01 | | | | | | |
| | | | EWB-T01 | | | | | | |
| | | | | | | | | | |
| | PC System | attachments | PCA-E1 | VT-3 | 2 | 1 | 2 | | |
| | | | PCB-E1 | | | | | | |
| | | | | | | | | | |
| | SI System | attachments | SIA-E01 | VT-3 | 2 | 1 | 3 | | |
| | | | SIB-E01 | | | | | | |
| | | | | | | | | | |

# SECTION 7.0
# AUGMENTED EXAMINATION SUMMARY

**INDEX**

EXAM CATEGORY

| | |
|---|---|
| N-722-1 | PWR Components Containing Alloy 600/82/182 |
| N-729-1 | PWR Reactor Vessel Upper Head |
| N-770-1 | PWR Pressure Retaining Dissimilar Metal Piping and Vessel Nozzle Butt Welds containing Alloy 82/182 |
| B-J | Pressure Retaining Welds in Piping |
| B-P | All Pressure Retaining Components |
| C-F-1 | Pressure Retaining Welds in Austenitic Stainless Steel or High Alloy Piping |
| C-F-2 | Pressure Retaining Welds in Carbon or Low Alloy Steel Piping |

AUGMENTED HIGH ENERGY

| | |
|---|---|
| C-F-2 | Pressure Retaining Welds in Carbon or Low Alloy Steel Piping |

AUGMENTED FLYWHEEL

| | |
|---|---|
| NA | Reactor Coolant Pump Flywheel Examinations |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | **EXAM CATEGORY CC722-1; PWR COMPONENTS CONTAINING ALLOY 600/82/182** | | | | | | | | |
| | REACTOR VESSEL | | | | | | | | |
| B15.80 | RPV bottom mounted instrument penetrations | | | | | | | | |
| | | | | | | | | | |
| | 1-Reactor Vessel | ICI Penetrations | 78173 | VE | 61 | 61 | * | * | *REQUIRED R16, R18, R20 |
| | | | | | | | | | |
| | STEAM GENERATOR | | | | | | | | |
| B15.135 | 3- Cold leg instrument connections | Penetrations | 224 | VE | 4 | 4 | 1 | *** | *** Each Interval |
| | | | | | | | | | |
| | 4- Cold leg instrument connections | Penetrations | 225 | VE | 4 | 4 | 1 | *** | |
| | | | | | | | | | |
| | PRESSURIZER | | | | | | | | |
| B15.140 | 5- Heater Penetrations | Penetrations | 78373 | VE | 36 | 36 | ** | ** | **Each RFO |
| | | | | | | | | | |
| B15.180 | 5- Instrument Connections | Instruments | 78373 | VE | 7 | 7 | ** | ** | |
| | | | | | | | | | |
| | PIPING | | | | | | | | |
| B15.200 | 6- Hot Leg Instrument Connections | Instruments | RCS | VE | 27 | 27 | ** | ** | |
| | | | | | | | | | |
| B15.205 | Cold leg instrument connections | | | | | | | | |
| | | | | | | | | | |
| | 6- RCP Pressure Taps | Instrument | RCP | VE | 8 | 8 | 2 | *** | |
| | 6- RCS Cold Leg | Instrument | RCS | VE | 12 | 12 | 3 | *** | |
| | | | | | | | | | |
| B15.215 | Cold leg full penetration welds | | | | | | | | |
| | | | | | | | | | |
| | 23- Safety Injection 1A | butt welds | SI-207-14" | VE | 1 | 1 | *** | *** | *** VE in conjunction |
| | | | | | | | | | with N-770-1 VOL |
| | 24- Safety Injection 1B | butt welds | SI-223-14" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 25- Safety Injection 2A | butt welds | SI-160-14" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 26- Safety Injection 2B | butt welds | SI-179-14" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 27- Pzr Spray 1A | butt welds | RC-062-3" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 28- Pzr Spray 1B | butt welds | RC-017-3" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 32- Drain Line Loop 1A | butt welds | RC-060-2" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 33- Drain Line Loop 1B | butt welds | RC-058-2" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 34- Drain Line Loop 2A | butt welds | RC-096-2" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 36- Letdown Line | butt welds | RC-091-2" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |
| | 37- Charging Line | butt welds | CH-005-3" | VE | 1 | 1 | *** | *** | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **CODE CASE N-729-1; PWR REACTOR VESSEL UPPER HEAD** | | | | | | | | |
| | REACTOR VESSEL UPPER HEAD | | | | | | | | |
| B4.30 | Head with nozzles and partial-penetration welds of PWSCC-resistant materials | | | | | | | | |
| | | | | | | | | | |
| | 2-Closure Head | weld | N05065-CHA-02 | VE | 97 | 97 | * | 100 | *R15 (Head Replaced) |
| | | | | | | | | | REQUIRED R18, R21 |
| | 2-Closure Head | Vent Nozzle | N05065-CHA-02 | VE | 1 | 1 | * | 100 | *R15 (Head Replaced) |
| | | | | | | | | | REQUIRED R18, R21 |
| B4.40 | Nozzles and partial-penetration welds of PWSCC-resistant materials in head | | | | | | | | |
| | | | | | | | | | |
| | 2-Closure Head | CEDM Nozzles | N05065-CHA-02 | S or Vol | 97 | 97 | * | 100 | * not to exceed 2020 |
| | | | | | | | | | |
| | 2-Closure Head | Vent Nozzle | N05065-CHA-02 | S | 1 | 1 | * | 100 | * not to exceed 2020 |
| | | | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **CODE CASE N-770-1; PWR PRESSURE RETAINING DISSIMILAR METAL PIPING AND VESSEL NOZZLE BUTT WELDS CONTAINING ALLOY 82/182** | | | | | | | | |
| | | | | | | | | | |
| | **Cracked butt weld reinforced by full structural weld overlay of Alloy 52/152 material INSPECTION ITEM F** | | | | | | | | Mitigated with FSWO During R13; 1st ISI R15 |
| | 29- Spray | butt welds | RC-18-4" | Vol | 6 | 1 | 2 | 16 | |
| | 20- * Surge | butt welds | RC-028-12" | Vol | | 1 | 3 | 32 | *Design Calc Exam |
| | 31- Safeties (4) | butt welds | RC-001-6" | Vol | | | | | Frequency 3 years; |
| | | | RC-003-6" | Vol | | | | | required R17, R19, R21 |
| | | | RC-005-6" | Vol | | | | | |
| | | | RC-007-6" | Vol | | | | | |
| | | | | | | | | | |
| | 20- ** Pressurizer Surge Line | butt welds | RC-028-12" | Vol | 3 | 1 | 3 | 33 | **Design Calc Exam |
| | 21- Shutdown Cooling Loop 1 | butt welds | RC-051-16" | Vol | | | | | Frequency 6 years; |
| | 22- Shutdown Cooling Loop 2 | butt welds | RC-068-16" | Vol | | | | | required R19 |
| | | | | | | | | | |
| | **Unmitigated butt weld at Cold Leg operating temperature INSPECTION ITEM B** | | | | | | | | |
| | 23- Safety Injection 1A | butt welds | SI-207-14" | VE & Vol | 1 | 1 | | 100 | Examined R15, REQUIRED R19 |
| | 24- Safety Injection 1B | butt welds | SI-223-14" | VE & Vol | 1 | 1 | | 100 | Examined R15, REQUIRED R19 |
| | 25- Safety Injection 2A | butt welds | SI-160-14" | VE & Vol | 1 | 1 | | 100 | Examined R15, REQUIRED R19 |
| | 26- Safety Injection 2B | butt welds | SI-179-14" | VE & Vol | 1 | 1 | | 100 | Examined R15, REQUIRED R19 |
| | 27- Pressurizer Spray 1A | butt welds | RC-062-3" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |
| | 28- Pressurizer Spray 1B | butt welds | RC-017-3" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |
| | 32- Drain Line Loop 1A | butt welds | RC-060-2" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 33- Drain Line Loop 1B | butt welds | RC-058-2" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |
| | 34- Drain Line Loop 2A | butt welds | RC-096-2" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |
| | 36- Letdown Line | butt welds | RC-091-2" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |
| | 37- Charging Line | butt welds | CH-005-2" | VE & Vol | 1 | 1 | | 100 | REQUIRED R17, R21 |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY B-J; PRESSURE RETAINING WELDS IN PIPING** | | | | | | | | |
| | | | | | | | | | |
| B9.20 | LESS THAN NPS 4 | | | | | | | | |
| B9.21 | CIRCUMFERENTIAL WELDS OTHER THAN PWR HPSI SYSTEMS | | | | | | | | |
| | | | | | | | | | |
| | 30- Aux Pressurizer Spray** | butt welds | CH-009-2" | S & VOL | 2 | 2 | 3 | 100 | ** IEB 88-08 & IN 97-19 |
| | | | | | | | | | 2 welds and base |
| | | | | | | | | | metal down stream |
| | | | | | | | | | of V431 |
| | | | | | | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY C-F-1; PRESSURE RETAINING WELDS IN AUSTENITIC STAINLESS STEEL OR HIGH ALLOY PIPING** | | | | | | | | |
| | | | | | | | | | |
| C5.11 | 58- Aux & Downcomer FW SG 1 | Butt Welds | SG-8-6" | S & Vol | 1** | 1 | 1 | 100 | IEB 79-13 & SER 83-07 |
| | | | SG-8-8" | | | | | | (58-1; 59-1) |
| | | | | | | | | | |
| C5.11 | 59- Aux & Downcomer FW SG 2 | Butt Welds | SG-11-6" | S & Vol | 1** | 1 | 3 | 100 | |
| | | | SG-11-8" | | | | | | |
| | | | | | | | | | |
| | **EXAM CATEGORY C-F-2; PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL PIPING** | | | | | | | | ** Note exam items are in Aug Summary |
| | | | | | | | | | |
| C5.51 | 54-FW SG 1 | 14" x 0.938" | SG-002 | S & Vol | 2* | 2 | 2 | 100 | *IEB 79-13, SER 83-07 |
| | | | SG-013 | | | | | | (54-1 & 15; 55-1 & 15) |
| | | | | | | | | | |
| C5.51 | 55-FW SG 2 | 14" x 0.938" | SG-005 | S & Vol | 2* | 2 | 3 | 100 | |
| | | | SG-014 | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY C-F-2; PRESSURE RETAINING WELDS IN CARBON OR LOW ALLOY STEEL PIPING** | | | | | | | | (*) Identifies the number of welds that are not in the ASME CL 2 boundary |
| | | | | | | | | | |
| AHE5.50 | PIPING WELDS ≥ 3/8 IN NOMINAL WALL THICKNESS FOR PIPING >NPS 4 | | | | | | | | **100% of all intersecting longitudinal welds will be examined |
| AHE5.51 | CIRCUMFERENTIAL WELD** | | | | | | | | |
| | ***category running percent** | | | | 207 | 54 | 1 | 27 | |
| | | | | | | 0* | 2 | 27 | *Working on risk informed program |
| | | | | | | 153 | 3 | 100 | |
| | | | | | | | | | |
| | 47- Main Steam SG 1 West | Butt Welds | SG-206-28" | S & Vol | 12(1) | 13 | 1 | | |
| | | | SG-206-12" | | | | | | |
| | | | SG-206-6" | | | | | | |
| | | | | | | | | | |
| | 48- Main Steam SG 1 East | Butt Welds | SG-207-28" | S & Vol | 12(1) | 13 | 3 | | |
| | | | SG-207-12" | | | | | | |
| | | | SG-207-6" | | | | | | |
| | | | | | | | | | |
| | 49- Main Steam SG 2 East | Butt Welds | SG-208-28" | S & Vol | 12(1) | 13 | 3 | | |
| | | | SG-208-12" | | | | | | |
| | | | SG-208-6" | | | | | | |
| | | | | | | | | | |
| | 50- Main Steam SG 2 West | Butt Welds | SG-209-28" | S & Vol | 12(1) | 13 | 3 | | |
| | | | SG-209-12" | | | | | | |
| | | | SG-209-6" | | | | | | |
| | | | | | | | | | |
| | 51- Atmospheric Dump No. 1 | Butt Welds | SG-59-12" | S & Vol | 29 | 13 | 1 | | |
| | | | SG-70-12" | | | 16 | 3 | | |
| | | | | | | | | | |
| | 52- Atmospheric Dump No. 2 | Butt Welds | SG-84-12" | S & Vol | 29 | 29 | 3 | | |
| | | | SG-103-12" | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | 53- Steam to Aux Feedwater | Butt Welds | SG-81-6" | S & Vol | 28 | 14 | 1 | | |
| | | | SG-83-6" | | | 14 | 3 | | |
| | | | | | | | | | |
| | 56- Feedwater SG No. 1 | Butt Welds | SG-201-24" | S & Vol | 5(2) | 7 | 3 | | |
| | | | SG-202-24" | | | | | | |
| | | | SG-224-24" | | | | | | |
| | | | | | | | | | |
| | 57- Feedwater SG No. 2 | Butt Welds | SG-204-24" | S & Vol | 5(2) | 7 | 3 | | |
| | | | SG-205-24" | | | | | | |
| | | | SG-225-24" | | | | | | |
| | | | | | | | | | |
| | 60- Downcomer Feedwater SG 1 | Butt Welds | SG-200-8" | S & Vol | 6(8) | 14 | 1 | | |
| | | | SG-008-8" | | | | | | |
| | | | | | | | | | |
| | 61- Downcomer Feedwater SG 2 | Butt Welds | SG-203-8" | S & Vol | 6(8) | 14 | 3 | | |
| | | | SG-11-8" | | | | | | |
| | | | | | | | | | |
| | 66- Blowdown SG 1 | Butt Welds | SG-39-6" | S & Vol | 3(12) | 15 | 3 | | |
| | | | | | | | | | |
| | 67- Blowdown SG 2 | Butt Welds | SG -48-6" | S & Vol | 2(10) | 12 | 3 | | |
| | | | | | | | | | |
| AHE5.60 | PIPING WELDS >1/5" NOMINAL WALL THICKNESS FOR PIPING ≥ NPS 2 AND ≤ NPS 4 | | | | | | | | |
| AHE5.61 | CIRCUMFERENTIAL** | | | | | | | | |
| | | | | | | | | | |
| | ***category running percent** | | | | 42 | 10 | 1 | 24 | |
| | | | | | | 2 | 2 | 28 | |
| | | | | | | 30 | 3 | 100 | |
| | | | | | | | | | |
| | 51- Atmospheric Dump No. 1 | Butt Welds | SG-95-4" | S & Vol | 21 | 10 | 1 | | |
| | | | | | | 2 | 2 | | |
| | | | | | | 9 | 3 | | |
| | | | | | | | | | |
| | 52- Atmospheric Dump No. 2 | Butt Welds | SG-100-4" | S & Vol | 21 | 21 | 3 | | |
| | | | | | | | | | |
| | | | | | | | | | |

| ASME ITEM NO | ZONE-COMPONENT OR SYSTEM | IDENTIFICATION | DESCRIPTION, LINE OR SERIAL NO | NDE METHOD | TOTAL ITEMS | EXAM AMOUNT | INSPECTION PERIOD | RUNNING % | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| | **EXAM CATEGORY NA; RCP FLYWHEEL EXAMINATIONS PER REG GUIDE 1.14** | | | | | | | | |
| | | | | | | | | | |
| NA | 16-Reactor Coolant Pump 1A | flywheel | 1A | S&VOL | 4 | 4 | 3 | 100 | S OF ALL EXPOSED |
| | 17 Reactor Coolant Pump 1B | flywheel | 1B | | | | | | SURFACES and UT OF |
| | 18-Reactor Coolant Pump 2A | flywheel | 2A | | | | | | HIGH STRESS AREAS |
| | 19-Reactor Coolant Pump 2B | flywheel | 2B | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

## SECTION 8.0
## REQUESTS FOR RELIEF

**RELIEF REQUESTS**
**INDEX**

| NUMBER | DESCRIPTION |
|---|---|
| 36. | Full Structural Weld Metal Overlay; and for Units 1 and 3, request to use 2001 Edition thru 2003 Addenda for Repair and Replacements |
| 37. | Alternative to ASME Code Case N-638-1, Similar and Dissimilar Metal Welding Using Ambient Temperature Machine GTAW Temperbead Technique. |
| 38 | Included for reference to document the Close out of U2 2nd Interval |
| 39. | Safety Injection Tank alternative repair method. |
| 40. | Extended Reactor Vessel Examinations to meet the PWROG program |
| 41. | Request to utilize Appendix 1 of Code Case N-729-1. |
| 42. | Request to utilize Leak Path Assessments N-729-1 previously qualified |
| 43. | Included for reference to document the Closeout of U3 2nd Interval |
| 45. | Included for reference to document the Closeout of U2 RPV 2nd Interval |
| 46. | Included for reference to document the Closeout of U1 2nd Interval |
| 47. | Included for reference to document the Closeout of U3 RPV 2nd Interval |
| 48. | Request for Relief to use UT in Lieu of RT |
| 49. | Request to use Alternate Inspection method for Reactor Vessel Leak-off line |

# SECTION 9.0
# ISI
# BOUNDARY DRAWINGS

## BOUNDARY DRAWING INDEX

| Drawing No. | Drawing Title | Code Class |
|---|---|---|
| 01-M-AFP-001 | Auxiliary - Feedwater System | 2 & 3 |
| 01-M-CHP-001 | Chemical and Volume Control System | 1 & 2 |
| 01-M-CHP-002 | Chemical and Volume Control System | 2 & 3 |
| 01-M-CHP-003 | Chemical and Volume Control System | 2 |
| 01-M-CLP-001 | Containment Integrated and Local Leak Rate Test | 2 |
| 01-M-CPP-001 | Containment Purge System | 2 |
| 01-M-CTP-001 | Condensate Purge System | 2 |
| 01-M-DFP-001 | Diesel Fuel Oil & Transfer System | 3 |
| 01-M-DGP-001 | Diesel Generator System | 3 |
| 01-M-DWP-002 | Demineralized Water System | 2 |
| 01-M-ECP-001 | Essential Chilled Water System | 3 |
| 01-M-EWP-001 | Essential Cooling Water System | 3 |
| 01-M-FPP-006 | Fire Protection System | 2 |
| 01-M-GAP-001 | Service Gas Supply System ($N_2$ and $H_2$) | 2 & 3 |
| 01-N-GRP-001 | Gaseous Radwaste System | 2 |
| 01-M-HCP-001 | HVAC Containment Building | 2 |
| 01-M-HPP-001 | Containment Hydrogen Control | 2 |
| 01-M-IAP-002 | Instrument and Service Air System | 2 |
| 01-M-IAP-003 | Instrument and Service Air System | 2 |
| 01-M-NCP-002 | Nuclear Cooling Water System | 3 |
| 01-M-NCP-003 | Nuclear Cooling Water System | 2 |
| 01-M-PCP-001 | Fuel Pool Cooling & Cleanup System | 2 & 3 |
| 01-M-RCP-001 | Reactor Coolant System | 1 & 2 |
| 01-M-RCP-002 | Reactor Coolant System | 1 & 2 |
| 01-M-RDP-001 | Radioactive Waste Drain System | 2 |
| 01-M-SGP-001 | Main Steam System | 2 & 3 |
| 01-M-SGP-002 | Main Steam System | 2 |
| 01-M-SIP-001 | Safety Injection and Shutdown Cooling System | 2 |
| 01-M-SIP-002 | Safety Injection and Shutdown Cooling System | 1 & 2 |
| 01-M-SIP-003 | Safety Injection and Shutdown Cooling System | 2 |
| 01-M-SPP-001 | Essential Spray Pond System | 3 |
| 01-M-SPP-002 | Essential Spray Pond System | 3 |
| 01-N-SSP-001 | Nuclear Sampling System | 2 |
| 01-M-WCP-001 | Normal Chilled Water System | 2 |
| 13-M-ZZP-001 | Symbols and Legend | N/A |
| 13-M-ZZP-002 | Symbols and Legend | N/A |

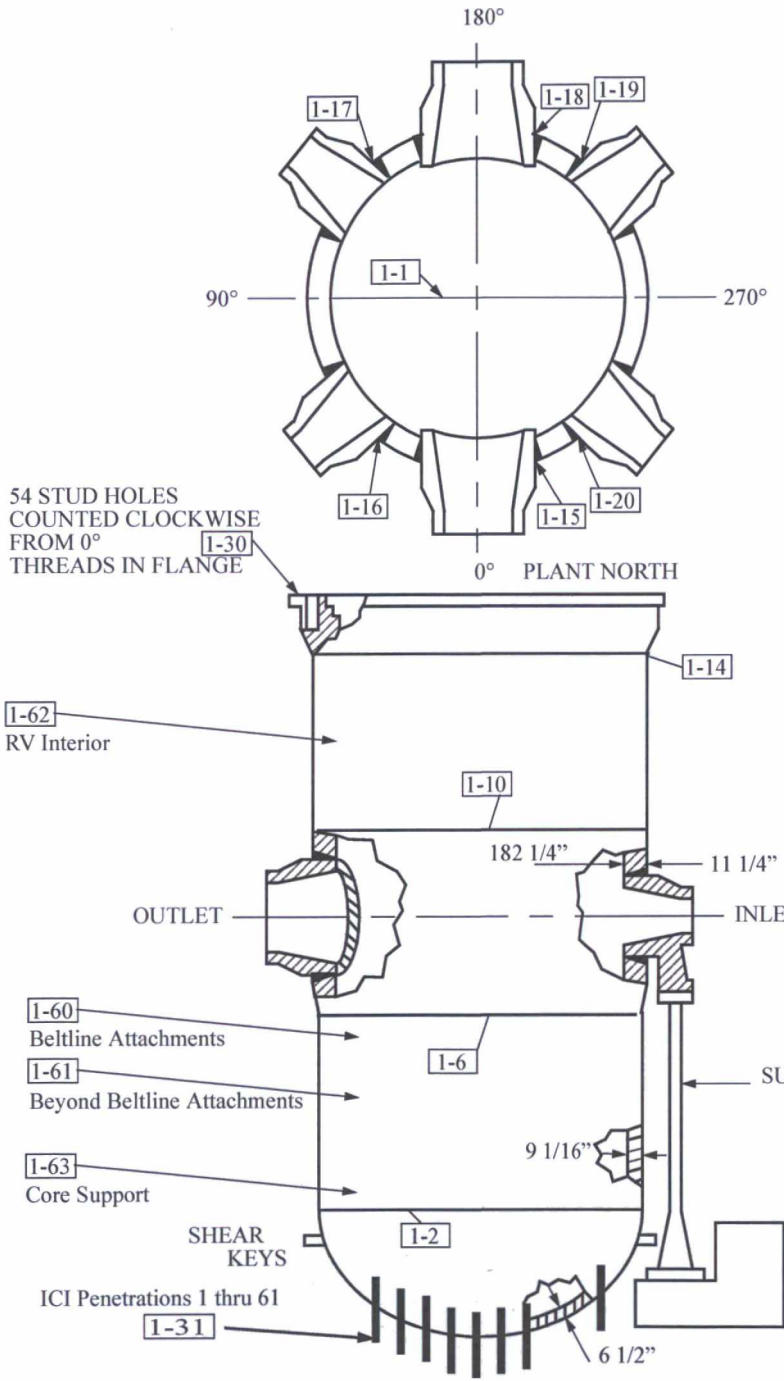
**SECTION 10.0**
**ZONE DRAWINGS**

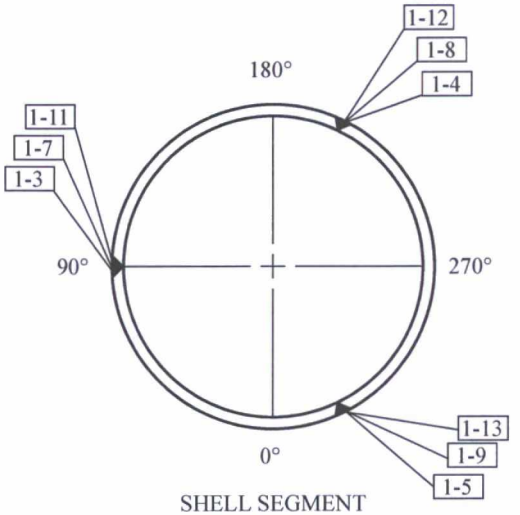
# ZONE DRAWING INDEX

| Drawing No. | Drawing Title | Code Class |
|---|---|---|
| Zone 1 | Reactor Vessel | 1 |
| Zone 2 | Closure Head | 1 |
| Zone 3 | Steam Generator 1 | 1 |
| Zone 4 | Steam Generator 2 | 1 |
| Zone 5 | Pressurizer | 1 |
| Zone 6 | RCS Primary Piping | 1 |
| Zone 16 | Reactor Coolant Pump 1A | 1 |
| Zone 17 | Reactor Coolant Pump 1B | 1 |
| Zone 18 | Reactor Coolant Pump 2A | 1 |
| Zone 19 | Reactor Coolant Pump 2B | 1 |
| Zone 20 | Pressurizer Surge Line | 1 |
| Zone 21 | Shutdown Cooling Loop 1 | 1 |
| Zone 22 | Shutdown Cooling Loop 2 | 1 |
| Zone 23 | Safety Injection 1A | 1 |
| Zone 24 | Safety Injection 1B | 1 |
| Zone 25 | Safety Injection 2A | 1 |
| Zone 26 | Safety Injection 2B | 1 |
| Zone 27 | Pressurizer Spray 1A | 1 |
| Zone 28 | Pressurizer Spray 1B | 1 |
| Zone 29 | Combined Pressurizer Spray | 1 |
| Zone 30 | Aux. Pressurizer Spray | 1 |
| Zone 31 | Pressurizer Safeties | 1 |
| Zone 32 | Drain Line 1A | 1 |
| Zone 33 | Drain Line 1B | 1 |
| Zone 34 | Drain Line 2A | 1 |
| Zone 35 | Drain Line 2B | 1 |
| Zone 36 | Letdown Line | 1 |
| Zone 37 | Charging Line | 1 |
| Zone 38 | Drain Line Loop 1 | 1 |
| Zone 39 | HPSI Long Term Recirc 1 | 1 |
| Zone 40 | HPSI Long Term Recirc 2 | 1 |
| Zone 41 | Steam Generator 1 | 2 |
| Zone 42 | Steam Generator 2 | 2 |
| Zone 43 | Main Steam SG1 East | 2 |
| Zone 44 | Main Steam SG1 West | 2 |
| Zone 45 | Main Steam SG2 East | 2 |
| Zone 46 | Main Steam SG2 West | 2 |
| Zone 47 | Main Steam SG1 West | 2 |
| Zone 48 | Main Steam SG1 East | 2 |
| Zone 49 | Main Steam SG2 East | 2 |
| Zone 50 | Main Steam SG2 West | 2 |
| Zone 51 | Atmospheric Dump No. 1 | 2 |
| Zone 52 | Atmospheric Dump No. 2 | 2 |
| Zone 53 | Steam to Aux Feedwater System | 2 |
| Zone 54 | Feedwater SG No. 1 | 2 |
| Zone 55 | Feedwater SG No. 2 | 2 |
| Zone 56 | Feedwater SG No. 1 | 2 |
| Zone 57 | Feedwater SG No. 2 | 2 |
| Zone 58 | Aux & Downcomer Feedwater SG 1 | 2 |
| Zone 59 | Aux & Downcomer Feedwater SG 2 | 2 |
| Zone 60 | Downcomer Feedwater SG 1 | 2 |
| Zone 61 | Downcomer Feedwater SG 2 | 2 |
| Zone 62 | Aux Feedwater SG 1 | 2 |
| Zone 63 | Aux Feedwater SG 2 | 2 |
| Zone 64 | Blowdown SG 1 | 2 |
| Zone 65 | Blowdown SG 2 | 2 |
| Zone 66 | Blowdown SG 1 | 2 |
| Zone 67 | Blowdown SG 2 | 2 |

## ZONE DRAWING INDEX (Continued)

| | | |
|---|---|---|
| Zone 68 | Regenerative Heat Exchanger | 2 |
| Zone 69 | Letdown Heat Exchanger | 2 |
| Zone 70 | LPSI Pump Room A Suction | 2 |
| Zone 71 | LPSI Pump Room A Discharge | 2 |
| Zone 72 | LPSI Pump A | 2 |
| Zone 73 | LPSI Pump Room B Suction | 2 |
| Zone 74 | LPSI Pump Room B Discharge | 2 |
| Zone 75 | LPSI Pump B | 2 |
| Zone 76 | Containment Spray Pump Room A Suction | 2 |
| Zone 77 | Containment Spray Pump Room A Discharge | 2 |
| Zone 78 | Containment Spray Pump A | 2 |
| Zone 79 | Containment Spray Pump Room B Suction | 2 |
| Zone 80 | Containment Spray Pump Room B Discharge | 2 |
| Zone 81 | Containment Spray Pump B | 2 |
| Zone 82 | Shutdown Cooling Heat Exchange Room A | 2 |
| Zone 83 | Shutdown Cooling Heat Exchange Room A | 2 |
| Zone 84 | Shutdown Cooling Heat Exchanger A | 2 |
| Zone 85 | Shutdown Cooling Heat Exchanger Room B | 2 |
| Zone 86 | Shutdown Cooling Heat Exchanger Room B | 2 |
| Zone 87 | Shutdown Cooling Heat Exchanger B | 2 |
| Zone 88 | East Wrap | 2 |
| Zone 89 | East Wrap | 2 |
| Zone 90 | East Wrap | 2 |
| Zone 91 | West Wrap | 2 |
| Zone 92 | West Wrap | 2 |
| Zone 93 | West Wrap | 2 |
| Zone 94 | A Train Misc. Pipe Chases & 88' Pipe Tunnel | 2 |
| Zone 95 | B Train Misc. Pipe Chases & 88' Pipe Tunnel | 2 |
| Zone 96 | Containment LPSI Header to Loop 1A | 2 |
| Zone 97 | Containment LPSI Header to Loop 1B | 2 |
| Zone 98 | Containment LPSI Header to Loop 2A | 2 |
| Zone 99 | Containment LPSI Header to Loop 2B | 2 |
| Zone 100 | Containment LPSI Train A Suction | 2 |
| Zone 101 | Containment LPSI Train B Suction | 2 |
| Zone 102 | SI Pumps Train "A" Suction | 2 |
| Zone 103 | Refueling Water Suction Train "A" | 2 |
| Zone 104 | SI Pumps Train "B" Suction | 2 |
| Zone 105 | Refueling Water Suction Train "B" | 2 |
| Zone 106 | HPSI Pump Room "A" Discharge | 2 |
| Zone 107 | HPSI Pump Room "B" Discharge | 2 |
| Zone 108 | HPSI Discharge 88' Pipe Chase | 2 |
| Zone 109 | HPSI Discharge 88' Pipe Chase | 2 |
| Zone 110 | HPSI Discharge West Wrap | 2 |
| Zone 111 | HPSI Discharge West Wrap | 2 |
| Zone 112 | HPSI Discharge East Wrap | 2 |
| Zone 113 | HPSI Discharge East Wrap | 2 |
| Zone 114 | Containment HPSI Header Loop 1A & 1B | 2 |
| Zone 115 | Containment HPSI Header Loop 2A & 2B | 2 |
| Zone 116 | HPSI Pump "A" | 2 |
| Zone 117 | HPSI Pump "B" | 2 |
| Zone 118 | HPSI Long Term | 2 |
| Zone 119 | HPSI Long Term | 2 |
| Zone 120 | Containment Spray A | 2 |
| Zone 121 | Containment Spray B | 2 |
| Zone 122 | DGA Jacket Water | 3 |
| Zone 123 | DGA Lube Oil | 3 |
| Zone 124 | DGB Jacket Water | 3 |
| Zone 125 | DGB Lube Oil | 3 |



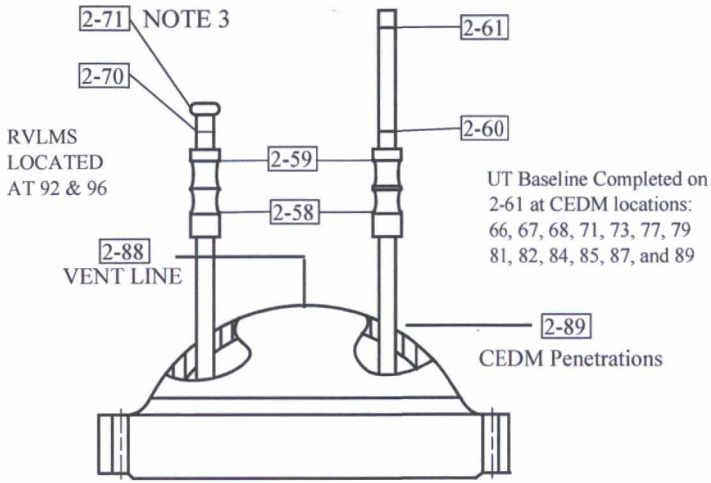

SHELL SEGMENT
CROSS SECTION
-LONG SEAMS-

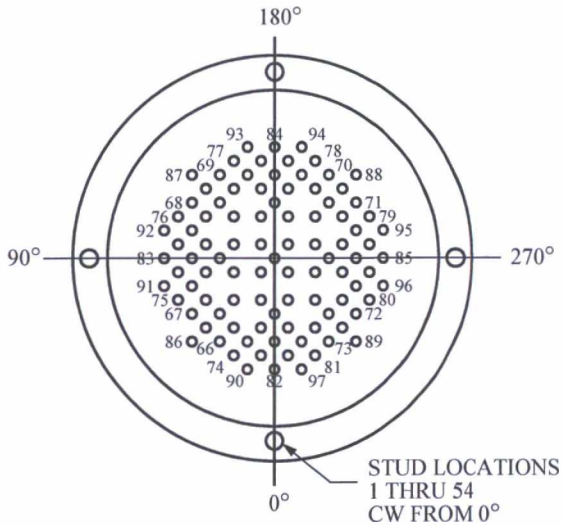
NOTES:

| | |
|---|---|
| TAG NO. | 1MRCEX01 |
| SERIAL NO. | 78173 (C-E) |
| N.B NO. | 22253 |

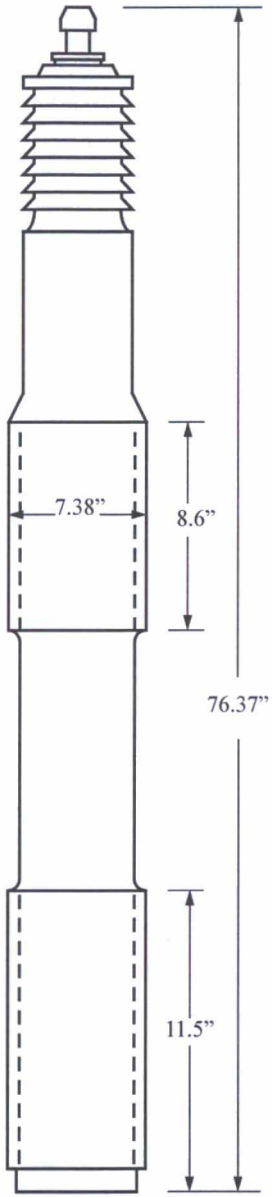
REFERENCE DWG:
N001-3.01-15 AND 17
N001-3.01-41 AND 61
N001-3.01-72

| UNIT 1 | ZONE 1 |
|---|---|
| REACTOR VESSEL | |




CLOSURE HEAD
TOP VIEW




CLOSURE
HEAD
STUDS

#1 THRU #54

1 THRU 18
19 THRU 36
37 THRU 54

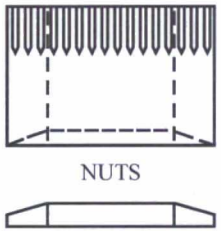
## NOTES:

1) Full ITEM ID include "- CEDM or RVLMS NO"
2) TAG NO. 1MRCEX01
   SERIAL NO. N05065-CHA-02 (Doosan)
   N.B. NO. 1699
3) ITEM 71 CONTAINS 4 SINGLE STUDS
   IN A GRAYLOC CLAMP

REFERENCE DOCS:

13-MN-740 (Replaced RV HEAD SPEC)
As Built DWG D-PV-11106-C02

R15 WO 3388751

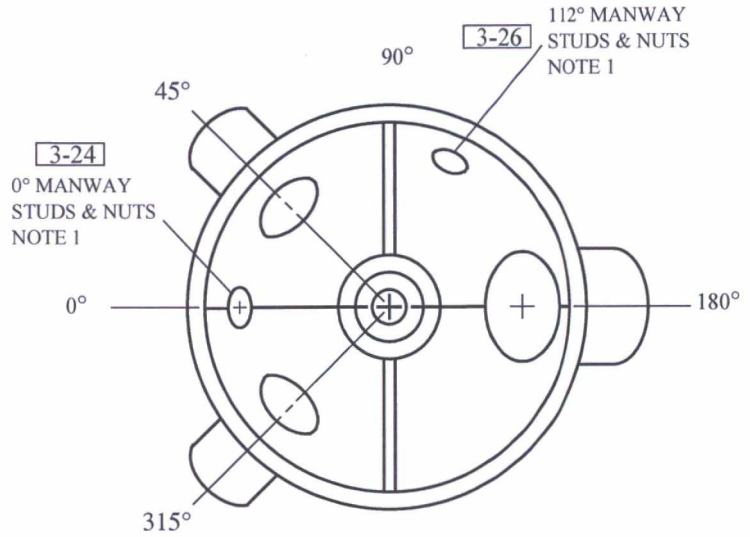


NUTS

WASHERS

1 THRU 18
19 THRU 36
37 THRU 54

| UNIT 1 | ZONE 2 |
|---|---|
| CLOSURE HEAD | |



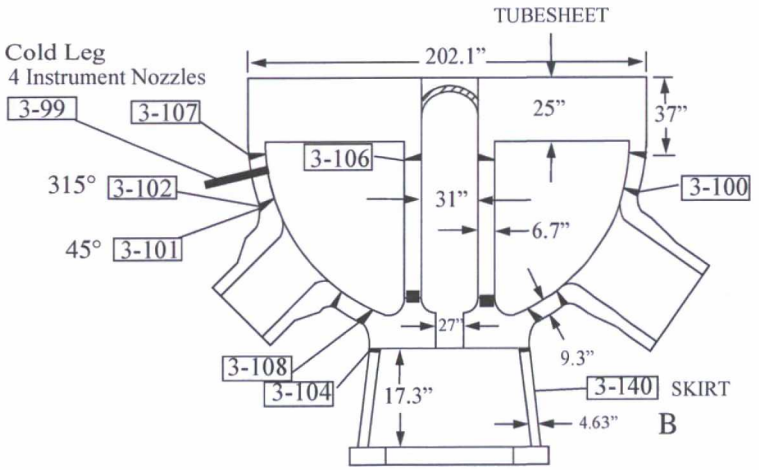

LOOKING DOWN

NOTES: *

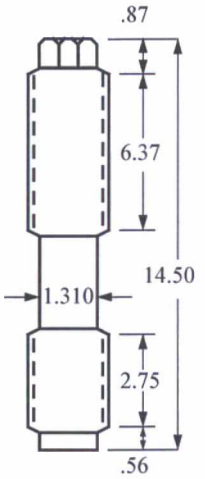
1) Stud Location is #1 TDC Going CW to #20.
2) Tag NO 1MRCEE01A
   Serial NO. 224
   N. B. NO. 173

REFERENCE DWGS: *

MN725-A700, A701, A702, A703 and A704
MN725-A419, A425, A440 and A448
MN725-A605, A622 and A625

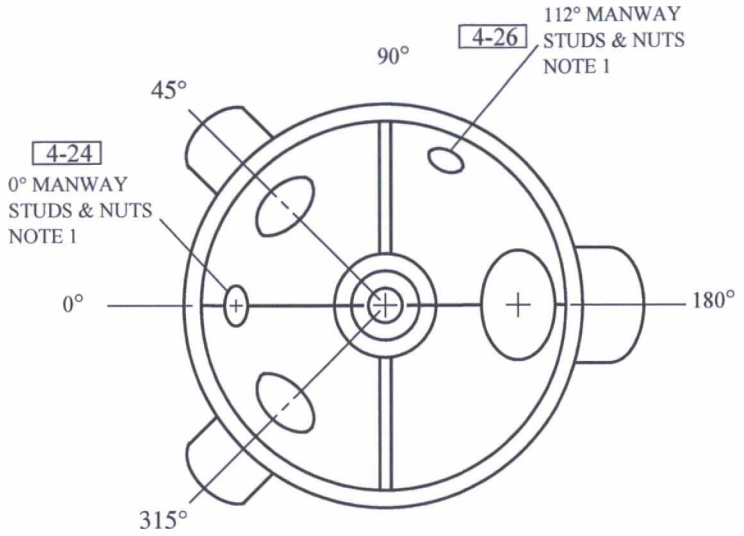



CHANNEL HEAD CROSS SECTION




MANWAY STUDS

| UNIT 1 | ZONE 3 |
|---|---|
| STEAM GENERATOR #1 | |
| | 3INT-ISI-1, Rev. 5 |



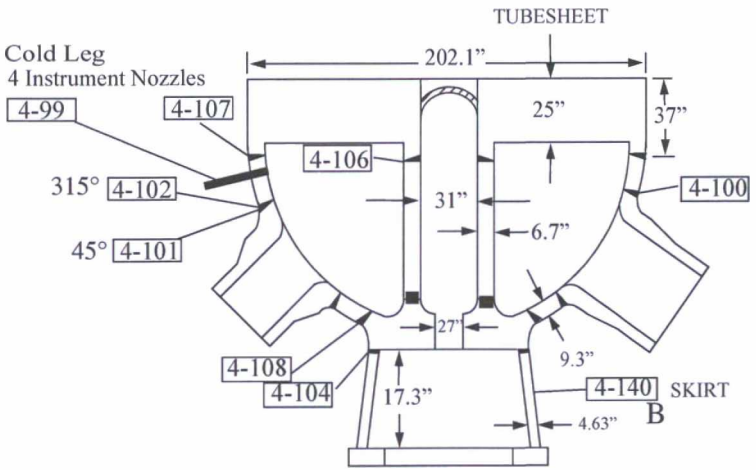

LOOKING DOWN

## NOTES:

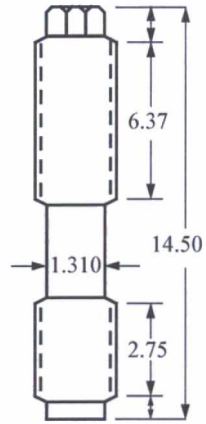
1) Stud Location is #1 TDC Going CW to #20.
2) Tag NO 1MRCEE01B
   Serial NO. 225
   N. B. NO. 174

## REFERENCE DWGS:

MN725-A700, A701, A702, A703 and A704
MN725-A419, A425, A440 and A448
MN725-A605, A622 and A625

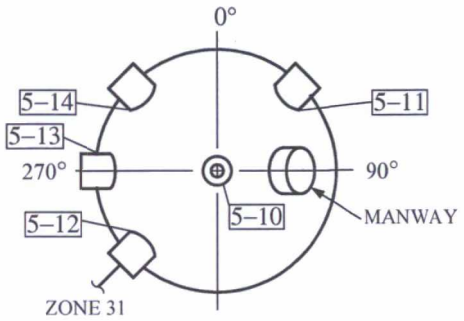



CHANNEL HEAD CROSS SECTION

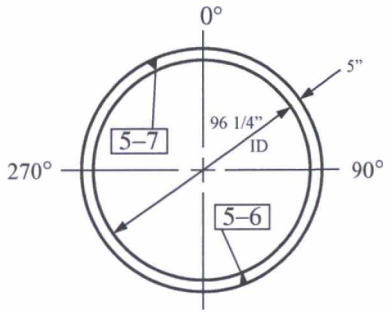



MANWAY STUDS

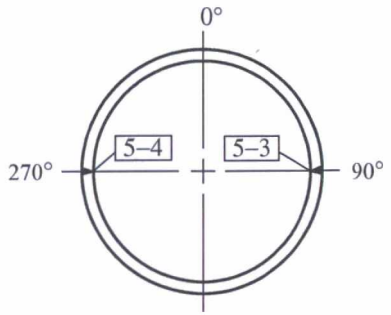
| UNIT 1 | ZONE 4 |
|---|---|
| STEAM GENERATOR #2 | |
| | 3INT-ISI-1, Rev. 5 |



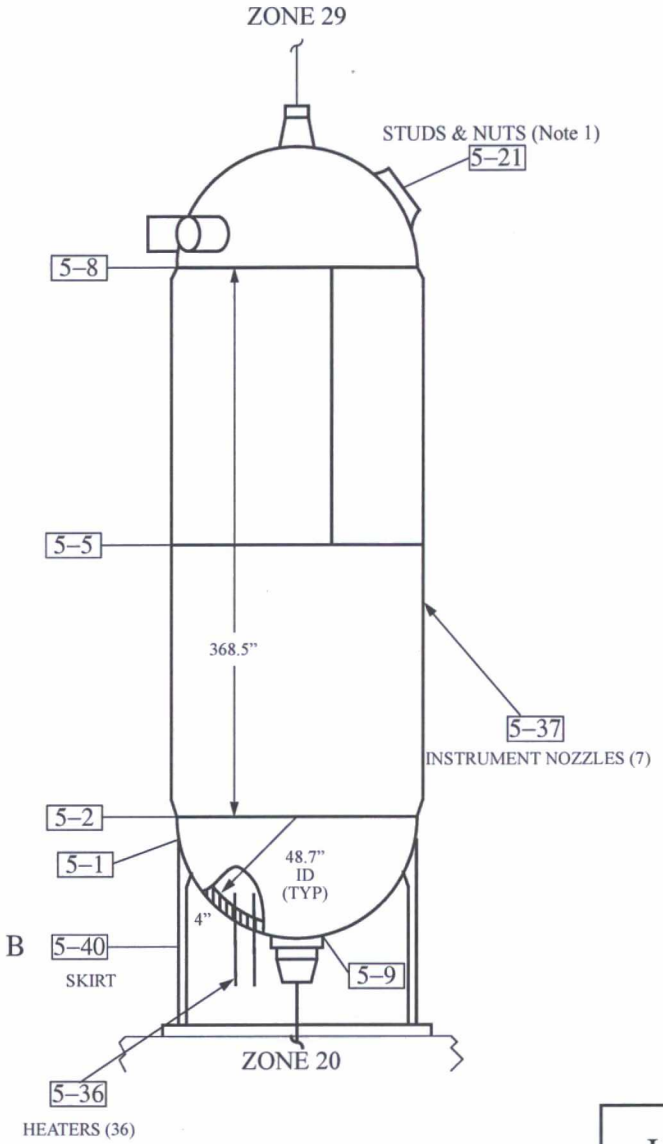

TOP VIEW

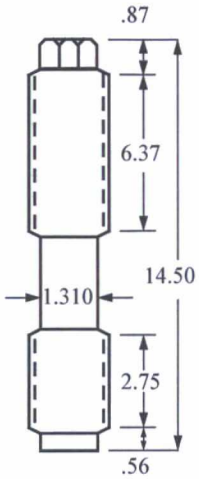



UPPER SHELL




LOWER SHELL




MANWAY STUDS

NOTES:

1) STUD LOCATION IS #1 TDC GOING CW TO #20
2) TAG NO 1MRCEX02
   SERIAL NO. 78373 (C-E)
   N.B. NO. 22234

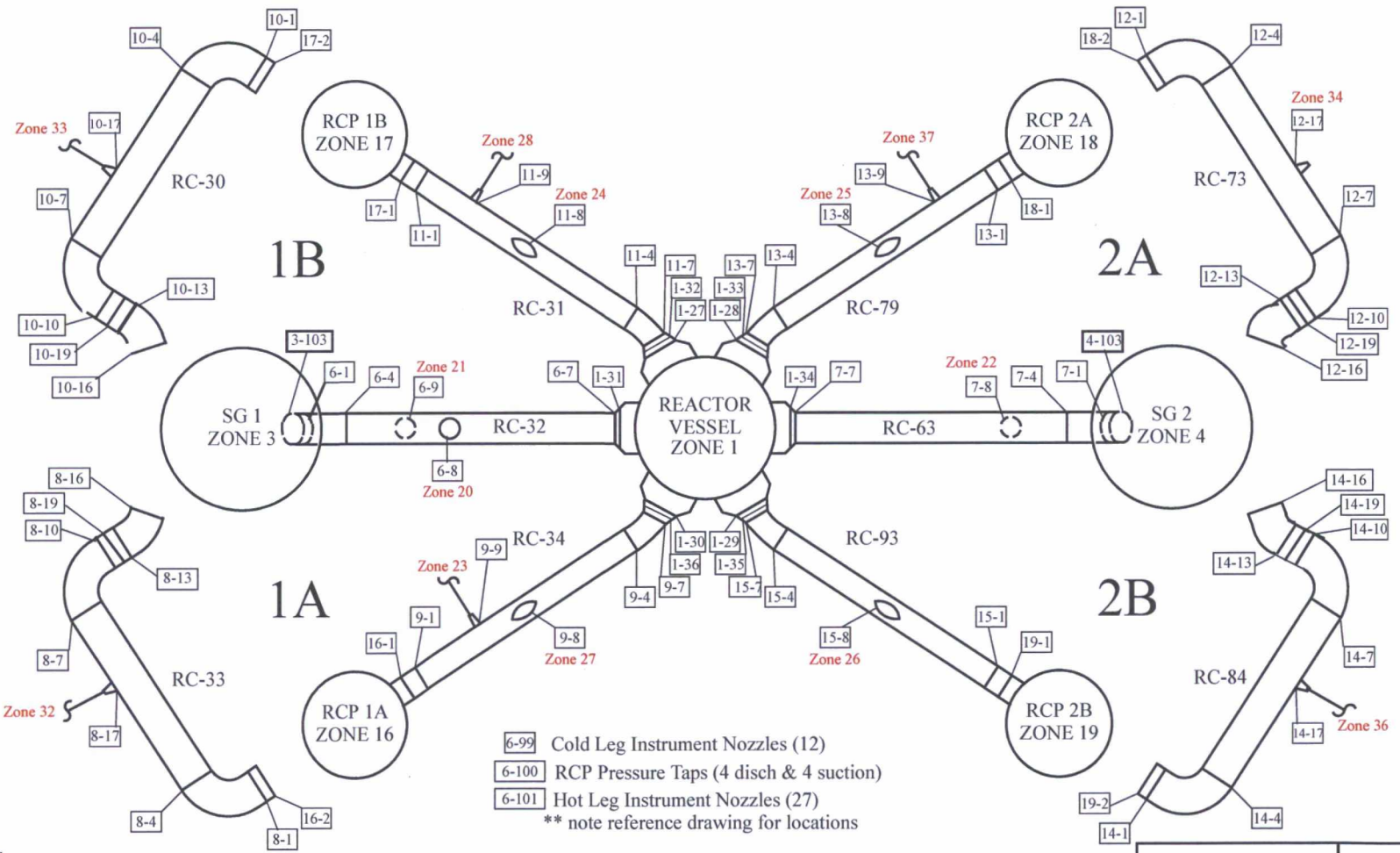
REFERENCE DWGS:

N001-6.04-6, 31 AND 90

| UNIT 1 | ZONE 5 |
|---|---|
| PRESSURIZER | |

REFERENCE DWGS:

**13-P-ZCG-103
N001-6.07-83 AND 112
N001-6.07-90 THRU 94
N001-6.07-96 THRU 100
MN725-A343, A383 and A708
MN725-A419, A609 and A622




NOTES:

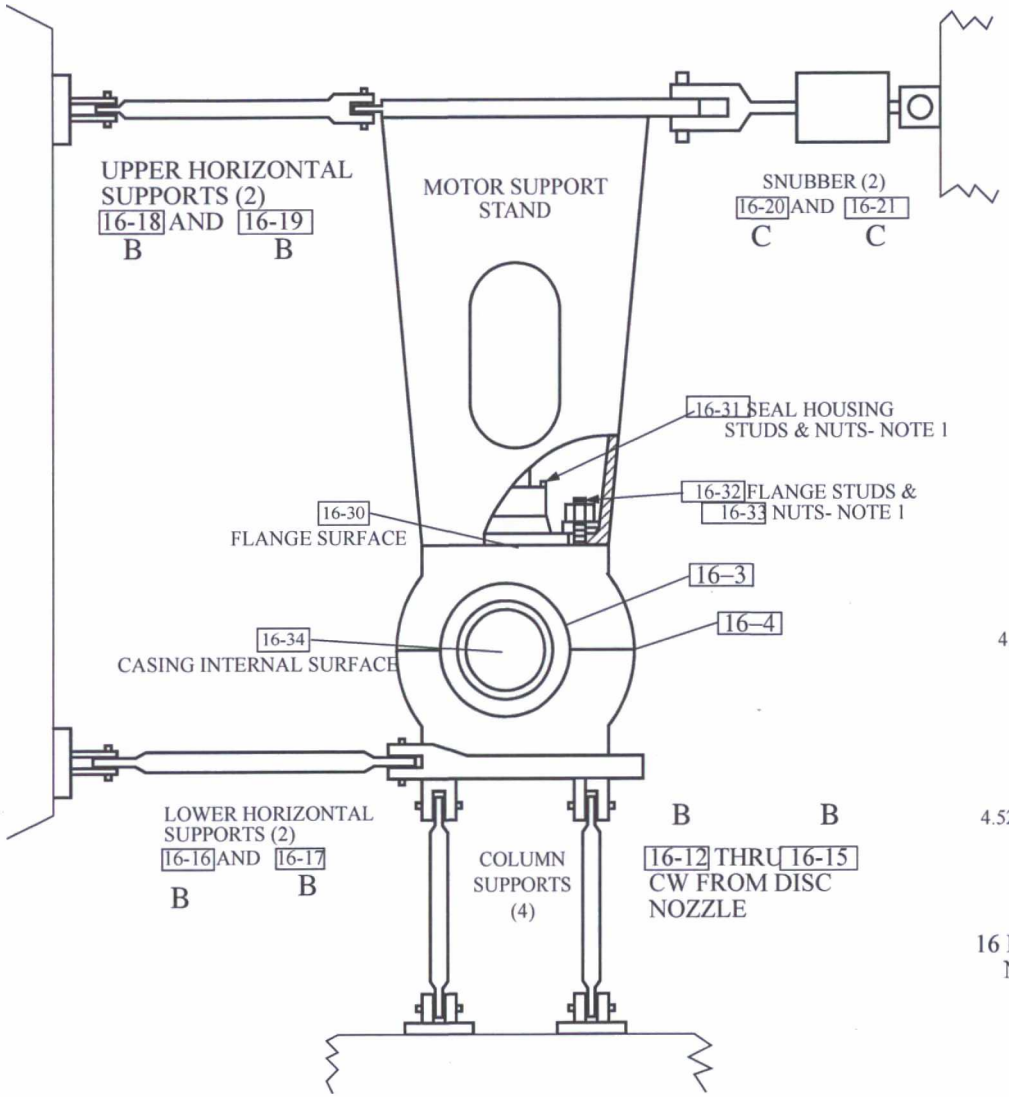
1) PIPE LONG SEAMS AT 3:00 AND 9:00 POSITIONS (FOR CE PIPING ONLY)
2) ELBOW LONG SEAMS AT LONG AND SHORT RADIUS (FOR CE PIPING ONLY)
3) ANSALDO PIPING AND ELBOWS ARE SEAMLESS (XX-13, XX-16 and XX-19 only)
4) PIPING WCL STAMPED WITH CENTER PUNCH MARKS. CE WELDS REFERENCED WITH FOOTAGE MARKS. ANSALDO WELDS REFERENCED WITH CENTER PUNCH MARKS EACH 250 mm.
5) FOR REPLACEMENT WELDS, PORTIONS OF THE ORIGINAL WELD MAY REMAIN. THE ORIGINAL WELD CAP IS JOINED TO THE REPLACEMENT WELD

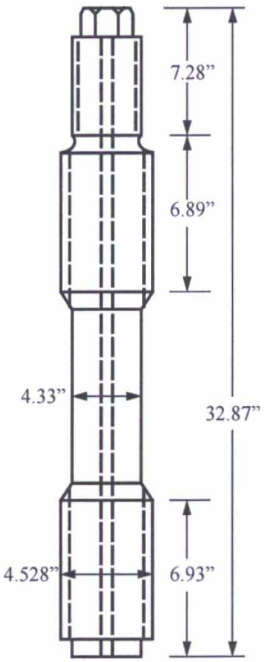
| UNIT 1 | ZONE 6 |
|---|---|
| RCS PRIMARY PIPING | |
| | 3INT-ISI-1, Rev. 5 |

NOTES:

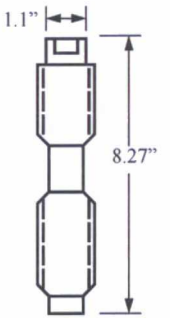
1) STUD LOCATIONS CW FROM DISCHARGE $\mathbb{C}_L$

2) TAG NO. 1MRCEP01A
SERIAL NO. 1109-1A (C-E)
N.B. NO. 23439




16 FLANGE STUDS NUTS & RING




16 SEAL HOUSING STUDS & NUTS

REFERENCE DWGS:

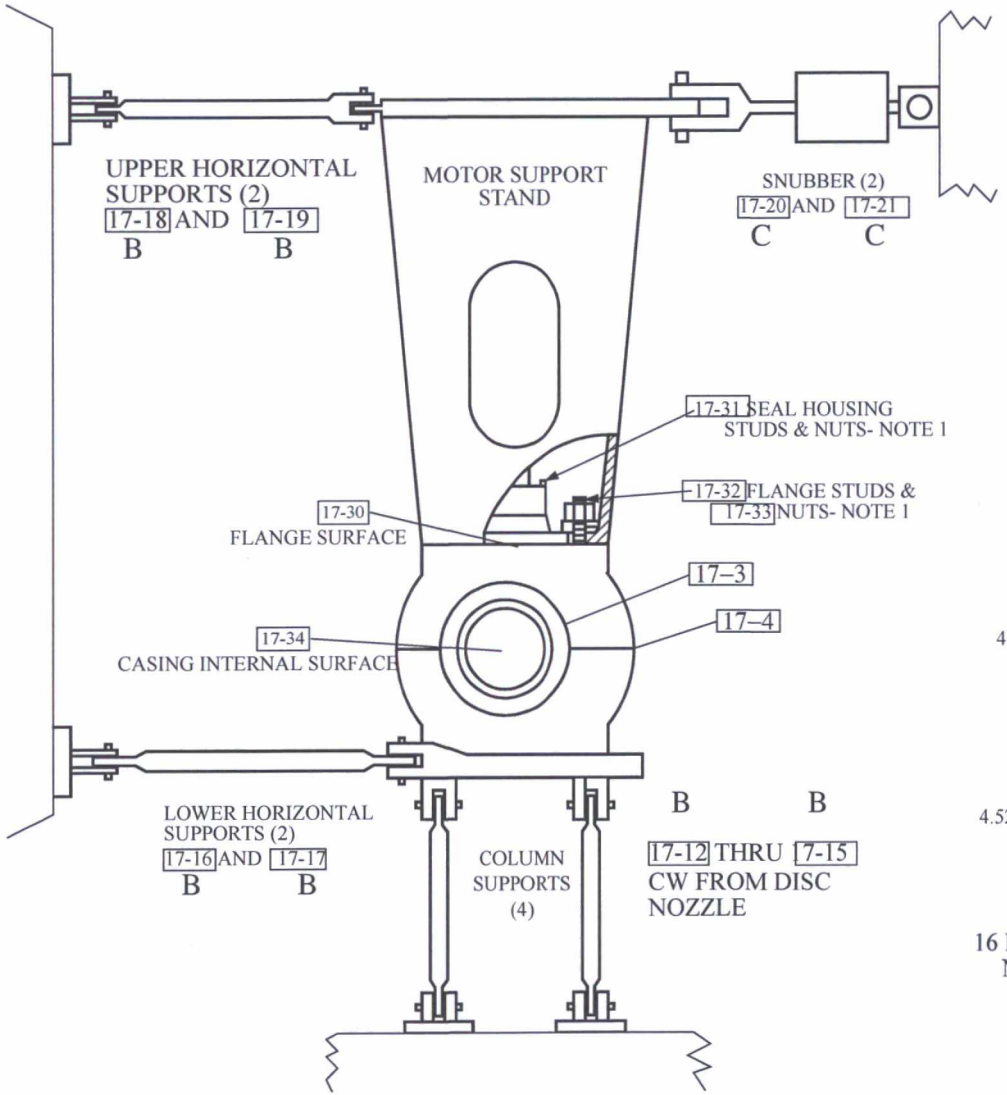
N001-6.02-418
N001-6.02-420 THRU 423
N001-6.02-107 & 108

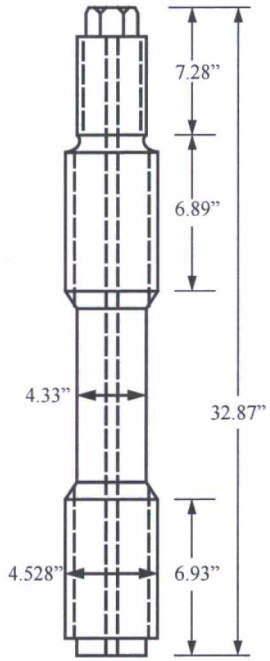
| UNIT 1 | ZONE 16 |
|---|---|
| REACTOR COOLANT PUMP 1A | |

NOTES:

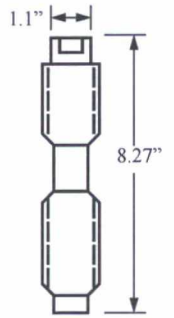
1) STUD LOCATIONS CW FROM DISCHARGE $\mathrm{C_L}$

2) TAG NO. 1MRCEP01B
SERIAL NO. 1109-1B (C-E)
N.B. NO. 23440




16 FLANGE STUDS NUTS & RING




16 SEAL HOUSING STUDS & NUTS

REFERENCE DWGS:

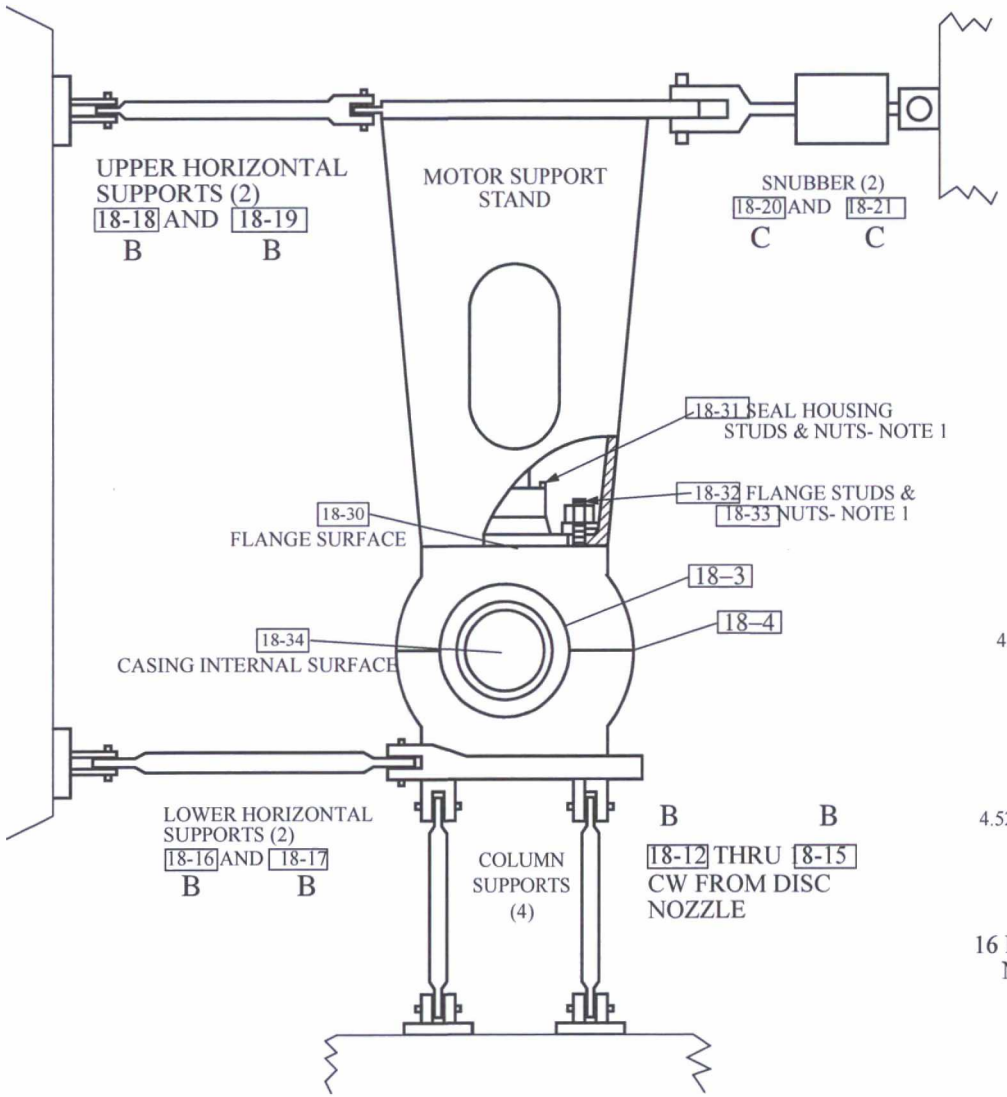
N001-6.02-418
N001-6.02-420 THRU 423
N001-6.02-107 & 108

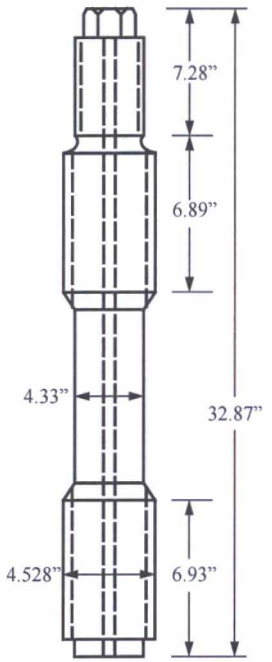
| UNIT 1 | ZONE 17 |
|---|---|
| REACTOR COOLANT PUMP 1B | |

NOTES:

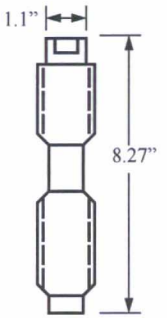
1) STUD LOCATIONS CW FROM DISCHARGE $\mathrm{C_L}$

2) TAG NO. 1MRCEP02A
SERIAL NO. 1109-2A (C-E)
N.B. NO. 23441




16 FLANGE STUDS NUTS & RING




16 SEAL HOUSING STUDS & NUTS

REFERENCE DWGS:

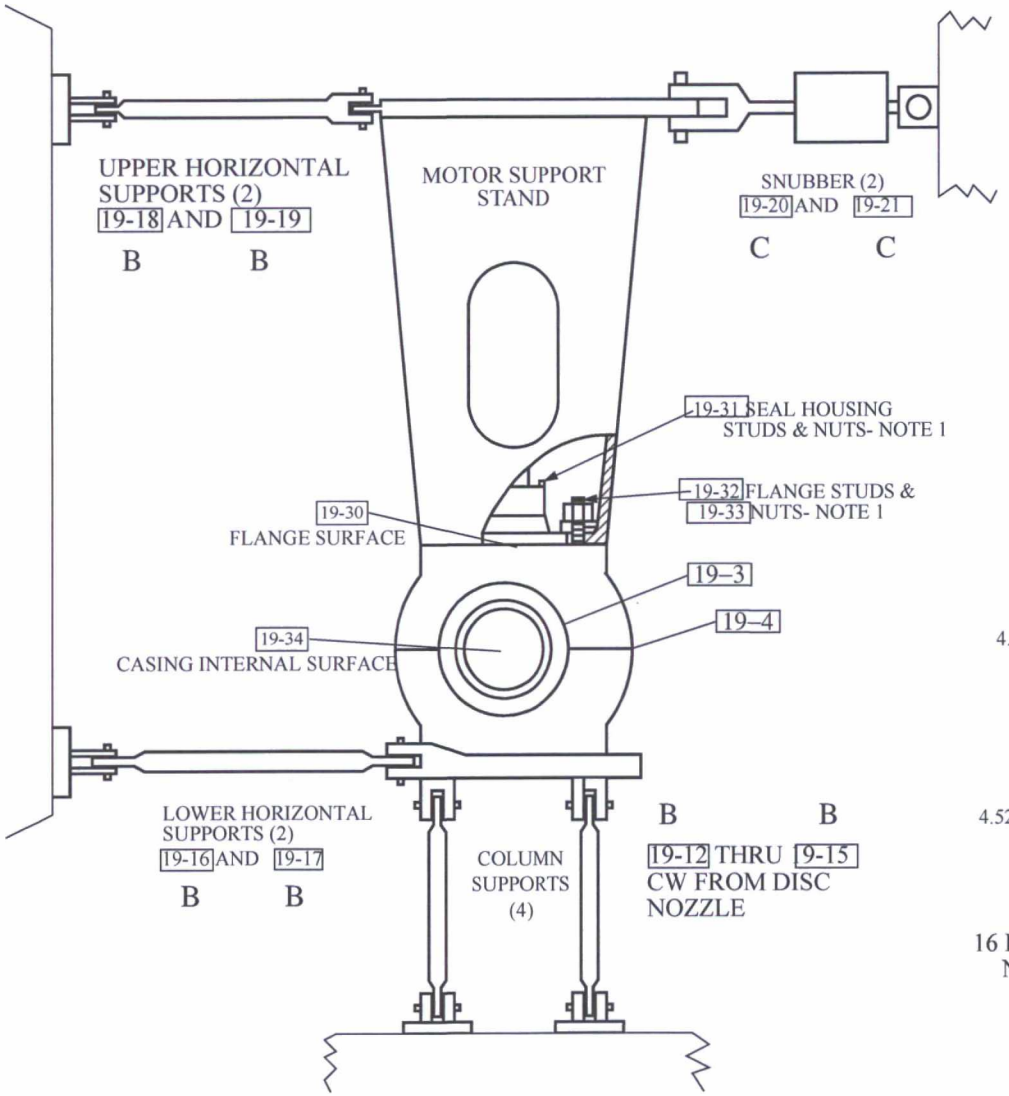
N001-6.02-418
N001-6.02-420 THRU 423
N001-6.02-107 & 108

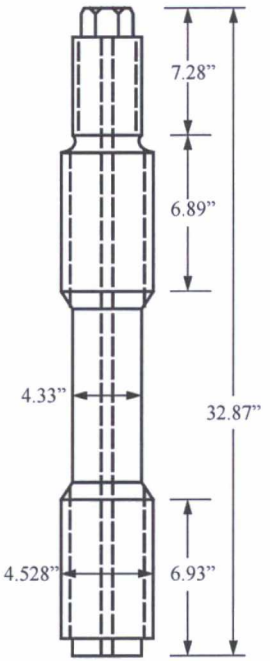
| UNIT 1 | ZONE 18 |
|---|---|
| REACTOR COOLANT PUMP 2A | |

NOTES:

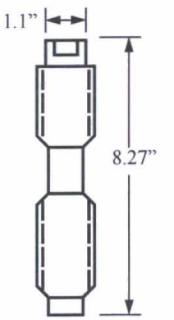
1) STUD LOCATIONS CW FROM DISCHARGE $\mathcal{L}$

2) TAG NO. 1MRCEP02B
SERIAL NO. 1109-2B (C-E)
N.B. NO. 23442




16 FLANGE STUDS NUTS & RING



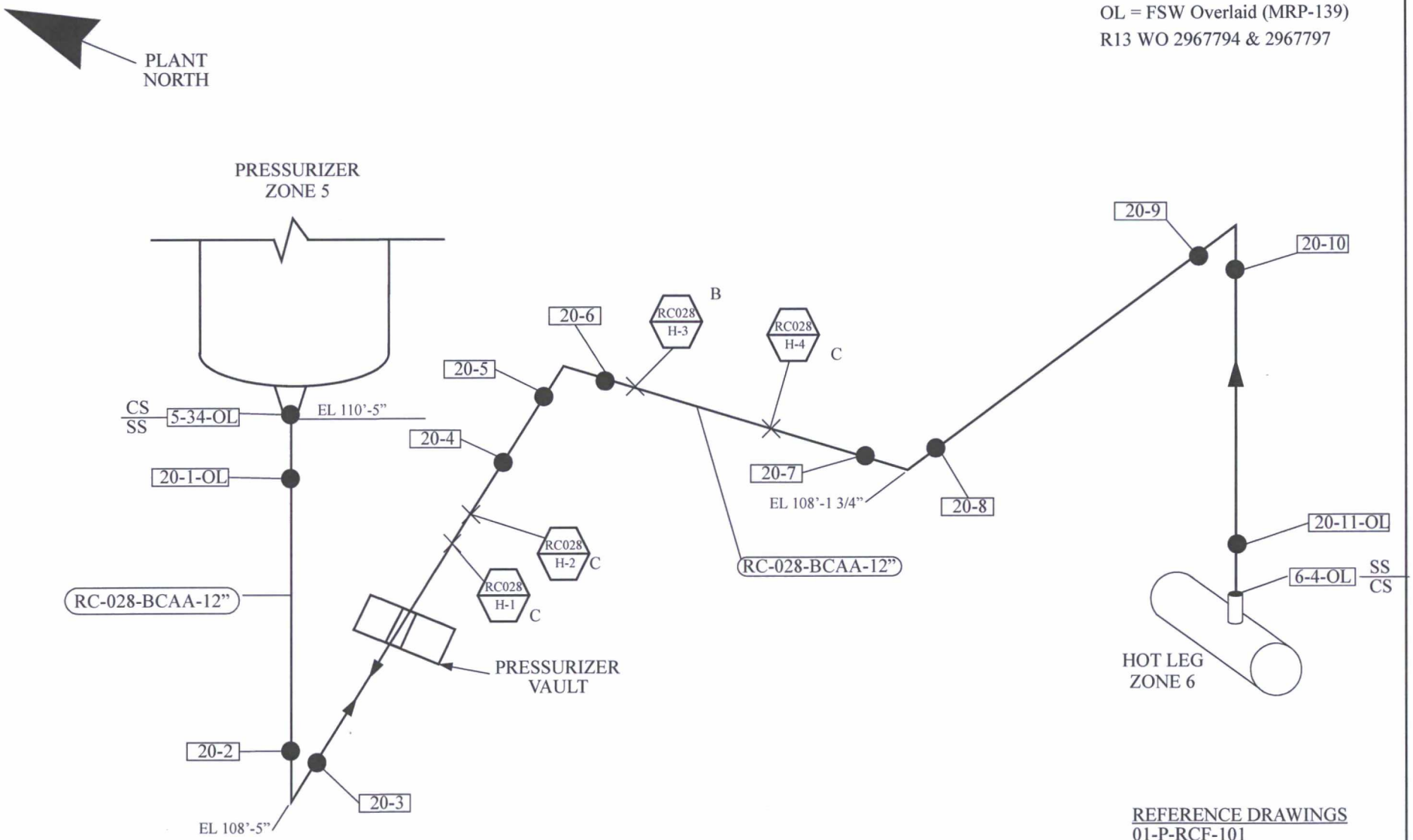

16 SEAL HOUSING STUDS & NUTS

REFERENCE DWGS:

N001-6.02-418
N001-6.02-420 THRU 423
N001-6.02-107 & 108

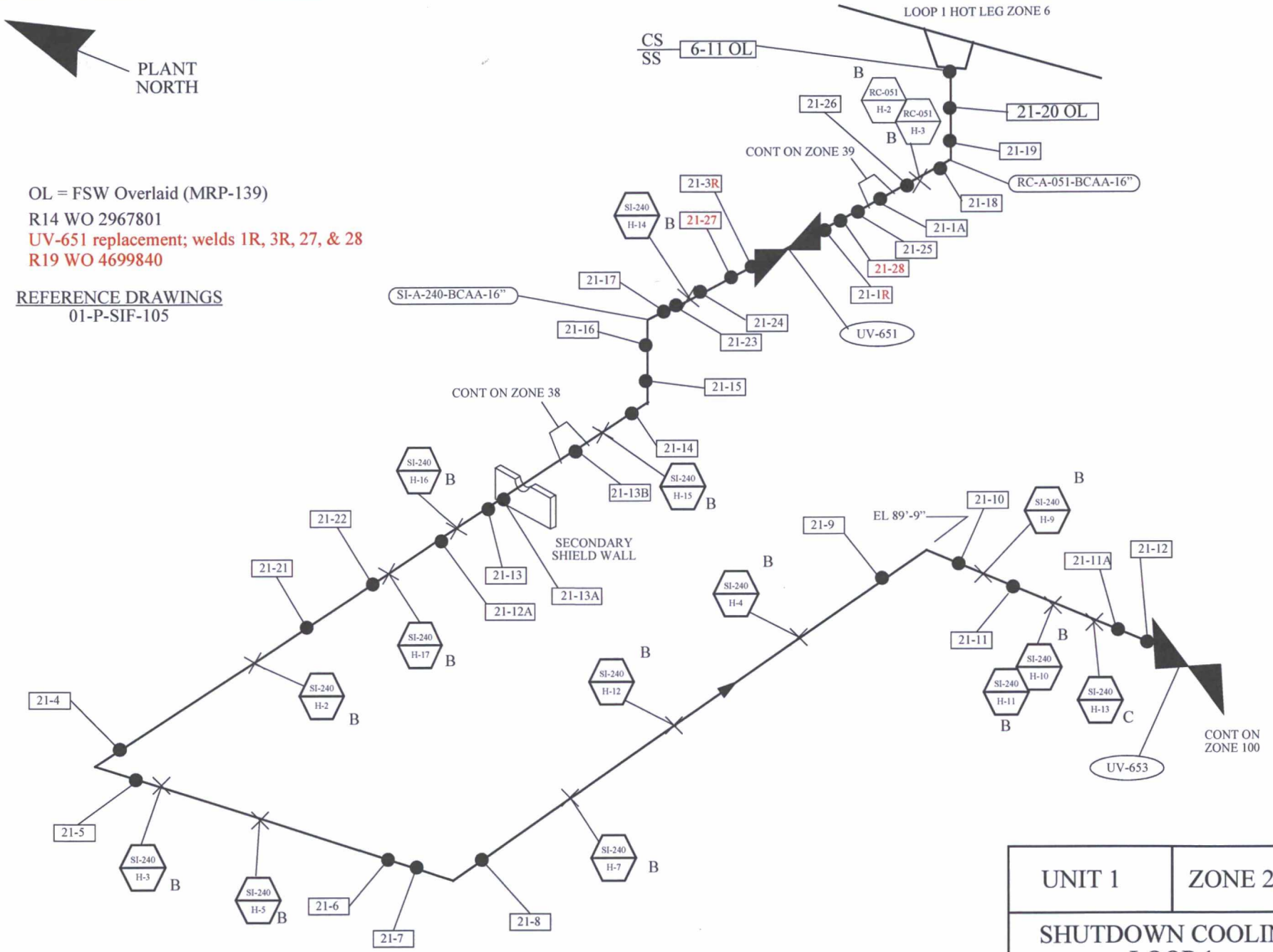
| UNIT 1 | ZONE 19 |
|---|---|
| REACTOR COOLANT PUMP 2B | |
| | 3INT-ISI-1, Rev. 5 |

OL = FSW Overlaid (MRP-139)
R13 WO 2967794 & 2967797




REFERENCE DRAWINGS
01-P-RCF-101

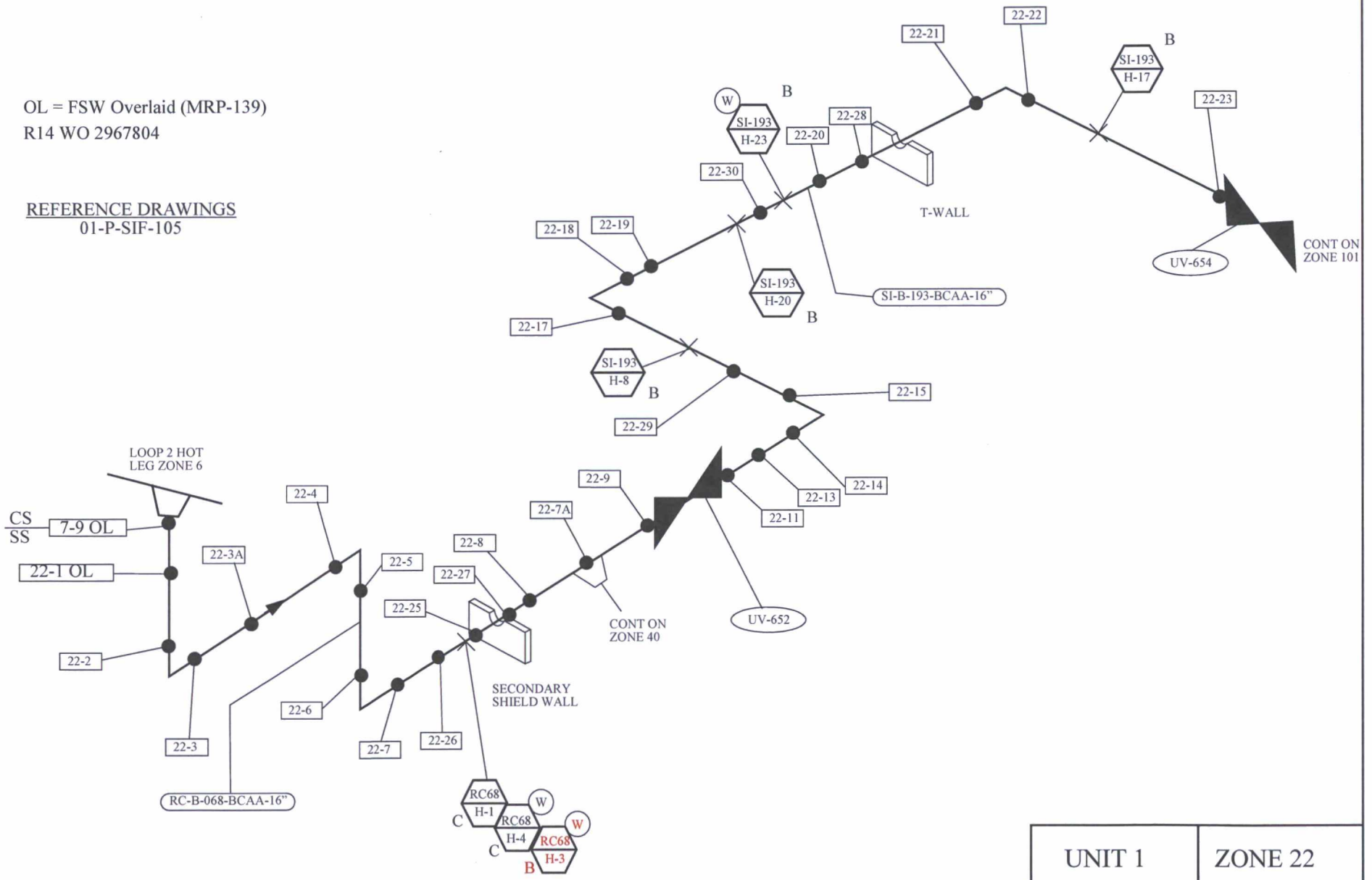
| UNIT 1 | ZONE 20 |
|---|---|
| PRESSURIZER SURGE | |



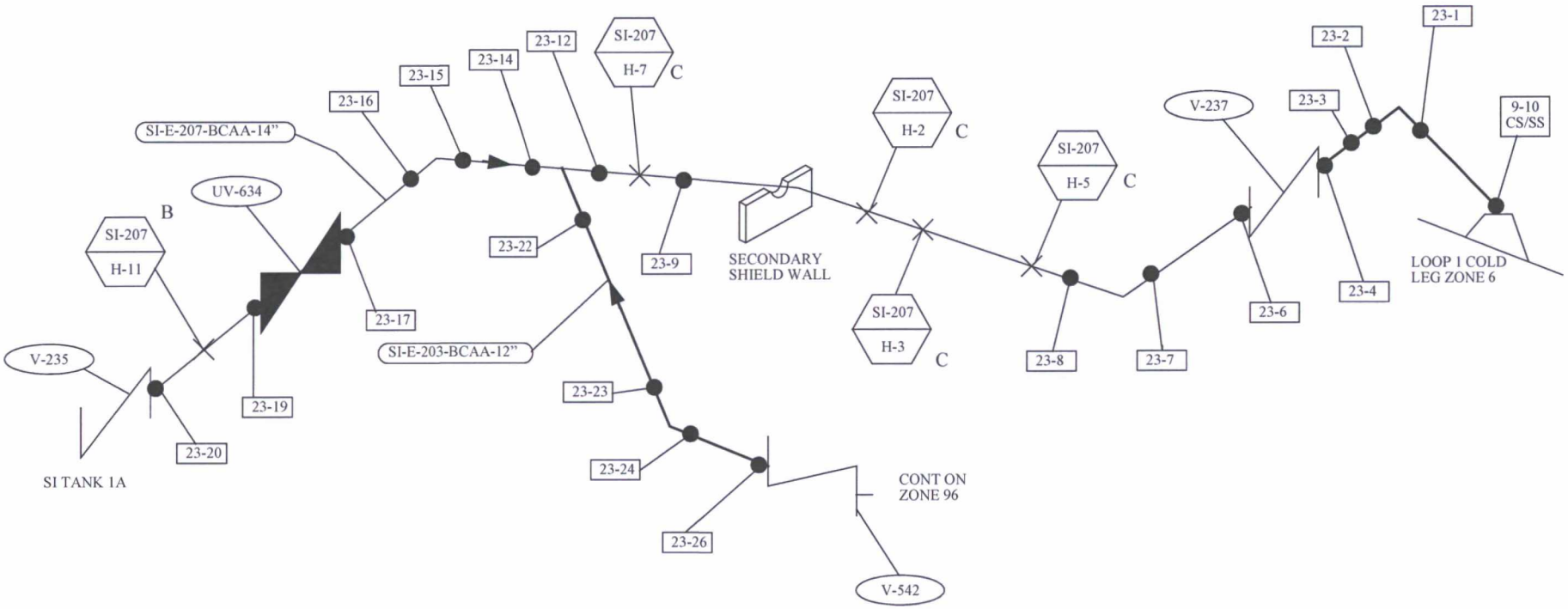

| UNIT 1 | ZONE 21 |
|---|---|
| SHUTDOWN COOLING LOOP 1 | |
| | 3INT-ISI-1, Rev. 5 |

OL = FSW Overlaid (MRP-139)
R14 WO 2967804

REFERENCE DRAWINGS
01-P-SIF-105

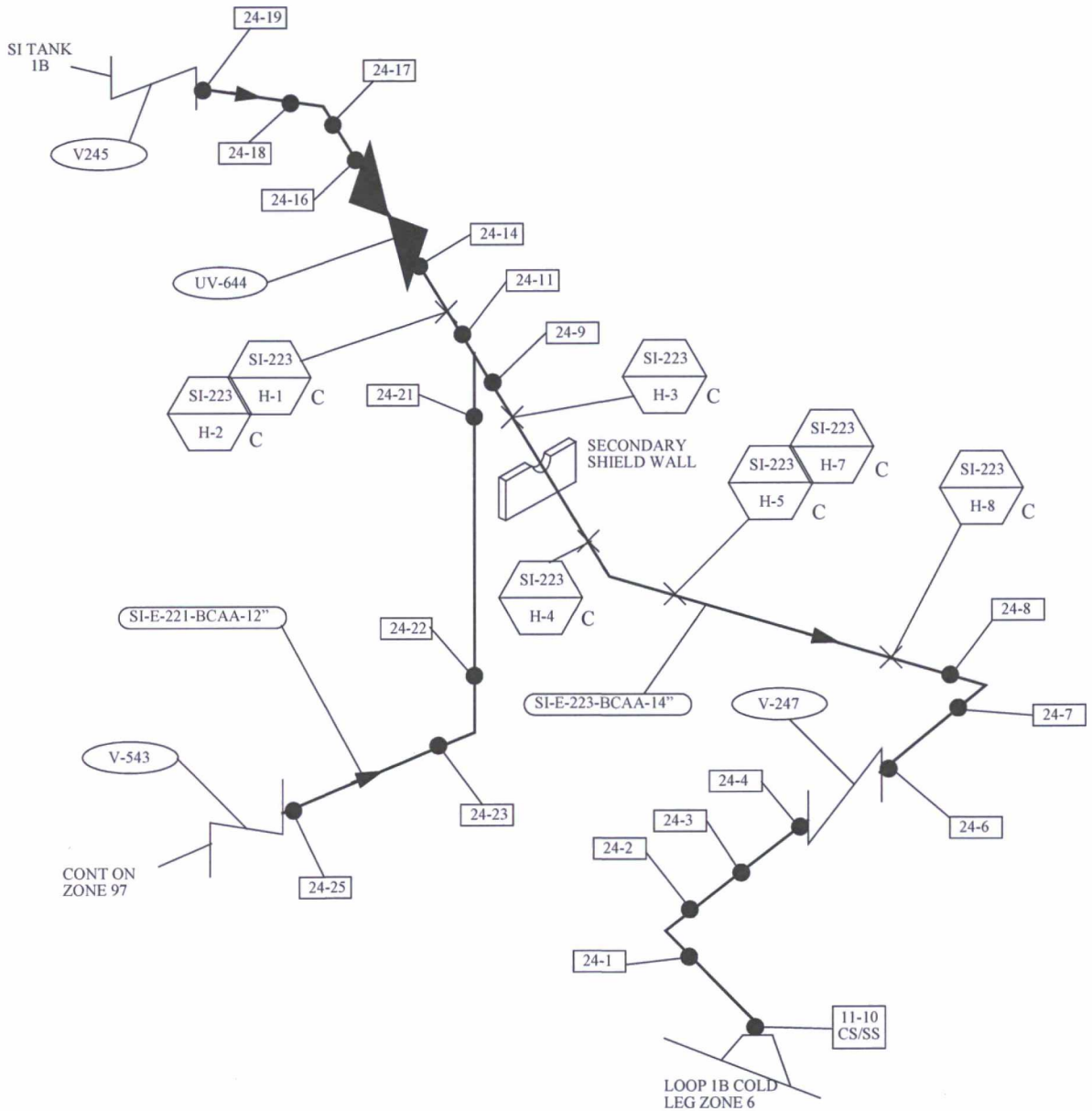



| UNIT 1 | ZONE 22 |
|---|---|
| SHUTDOWN COOLING LOOP 2 | |
| | 3INT-ISI-1, Rev. 5 |



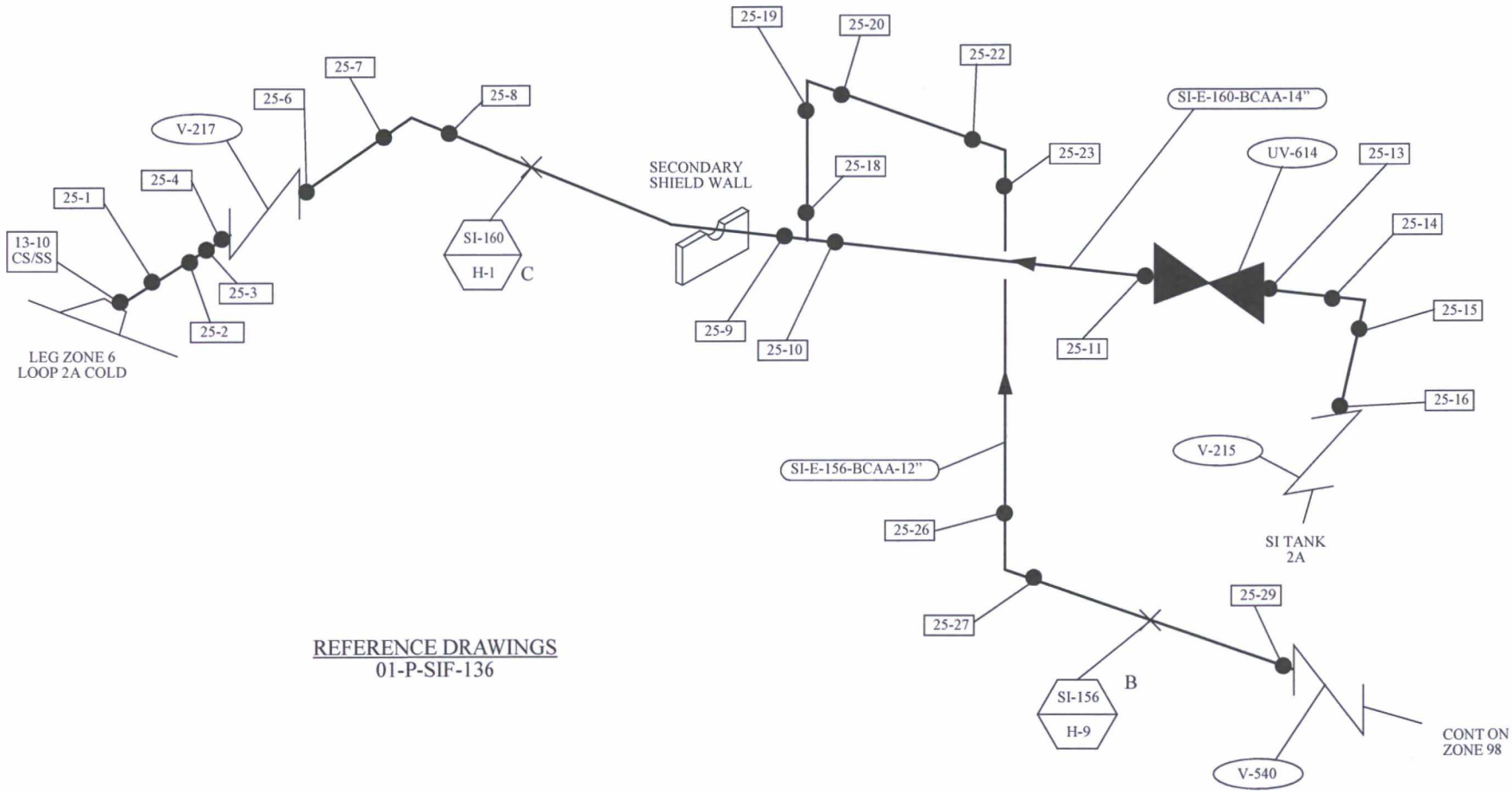

REFERENCE DRAWINGS
01-P-SIF-103

| UNIT 1 | ZONE 23 |
|---|---|
| SAFETY INJECTION 1A | |



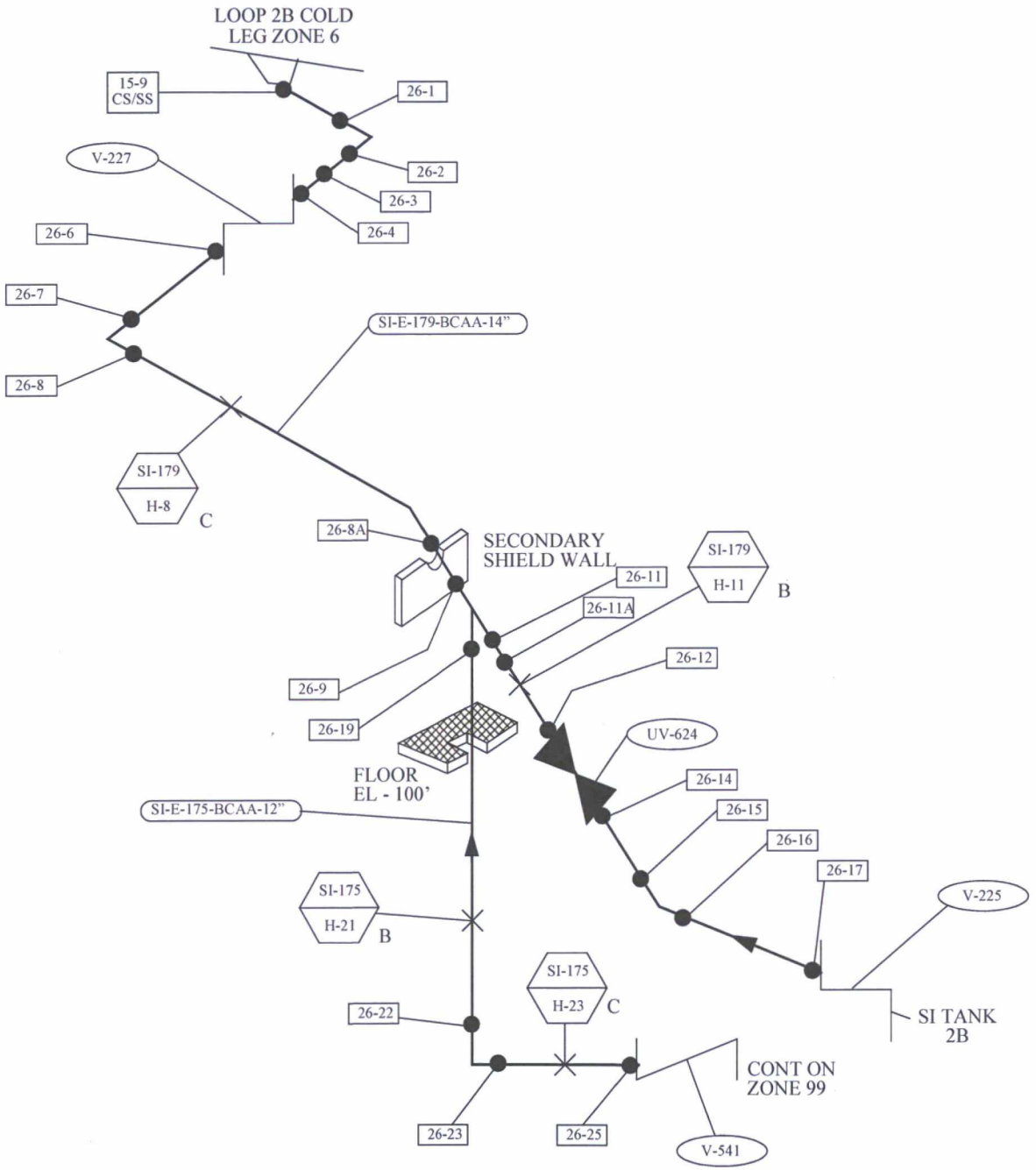

REFERENCE DRAWINGS
01-P-SIF-103

| UNIT 1 | ZONE 24 |
|---|---|
| SAFETY INJECTION 1B | |
| | 3INT-ISI-1, Rev. 5 |



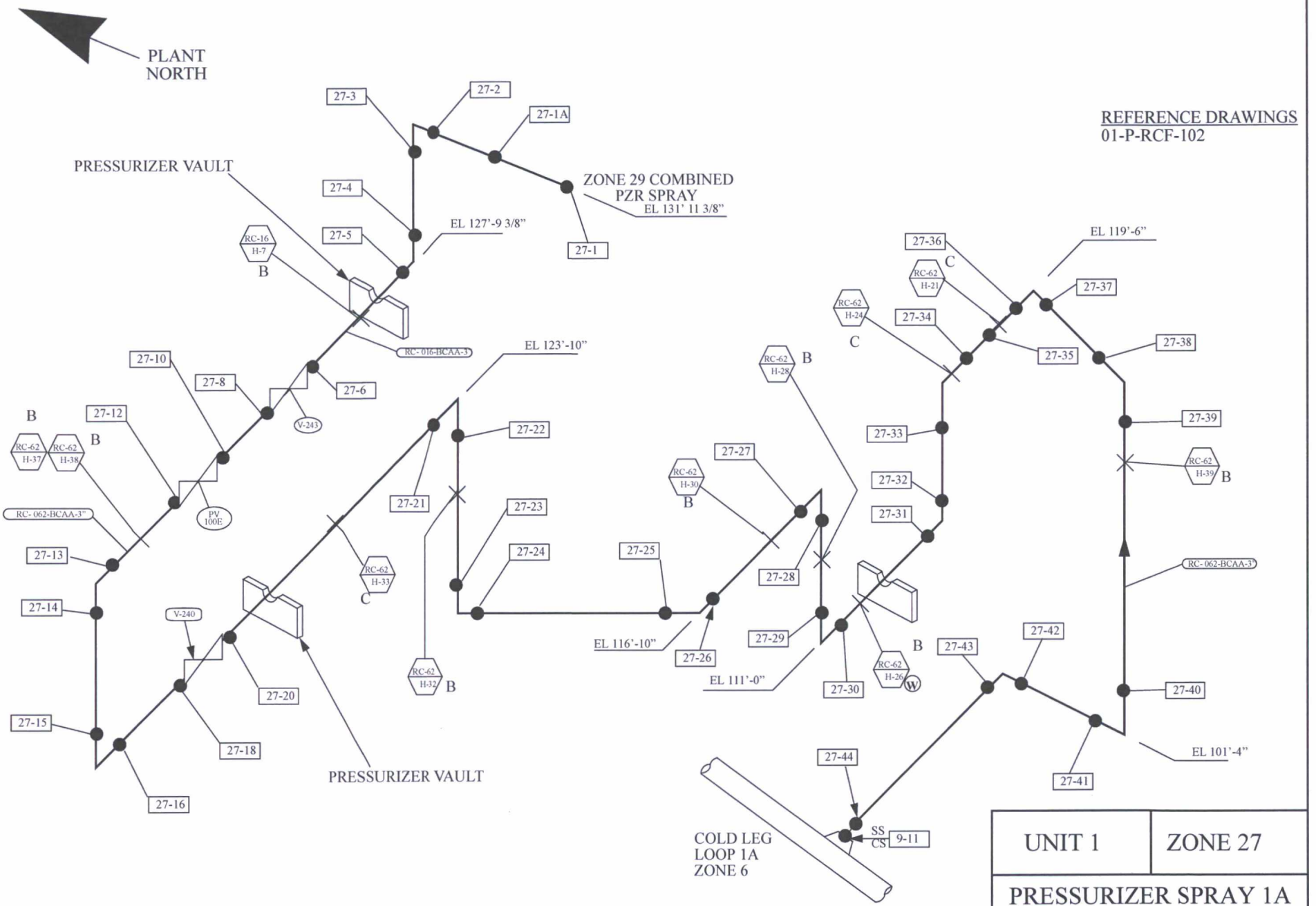

REFERENCE DRAWINGS
01-P-SIF-136

| UNIT 1 | ZONE 25 |
|---|---|
| SAFETY INJECTION 2A | |




REFERENCE DRAWINGS
01-P-SIF-136

| UNIT 1 | ZONE 26 |
|---|---|
| SAFETY INJECTION 2B | |


PLANT NORTH
REFERENCE DRAWINGS
01-P-RCF-102
PRESSURIZER VAULT
ZONE 29 COMBINED PZR SPRAY
EL 131' 11 3/8"
EL 127'-9 3/8"
EL 123'-10"
EL 119'-6"
EL 116'-10"
EL 111'-0"
EL 101'-4"
27-1
27-1A
27-2
27-3
27-4
27-5
27-6
27-8
27-10
27-12
27-13
27-14
27-15
27-16
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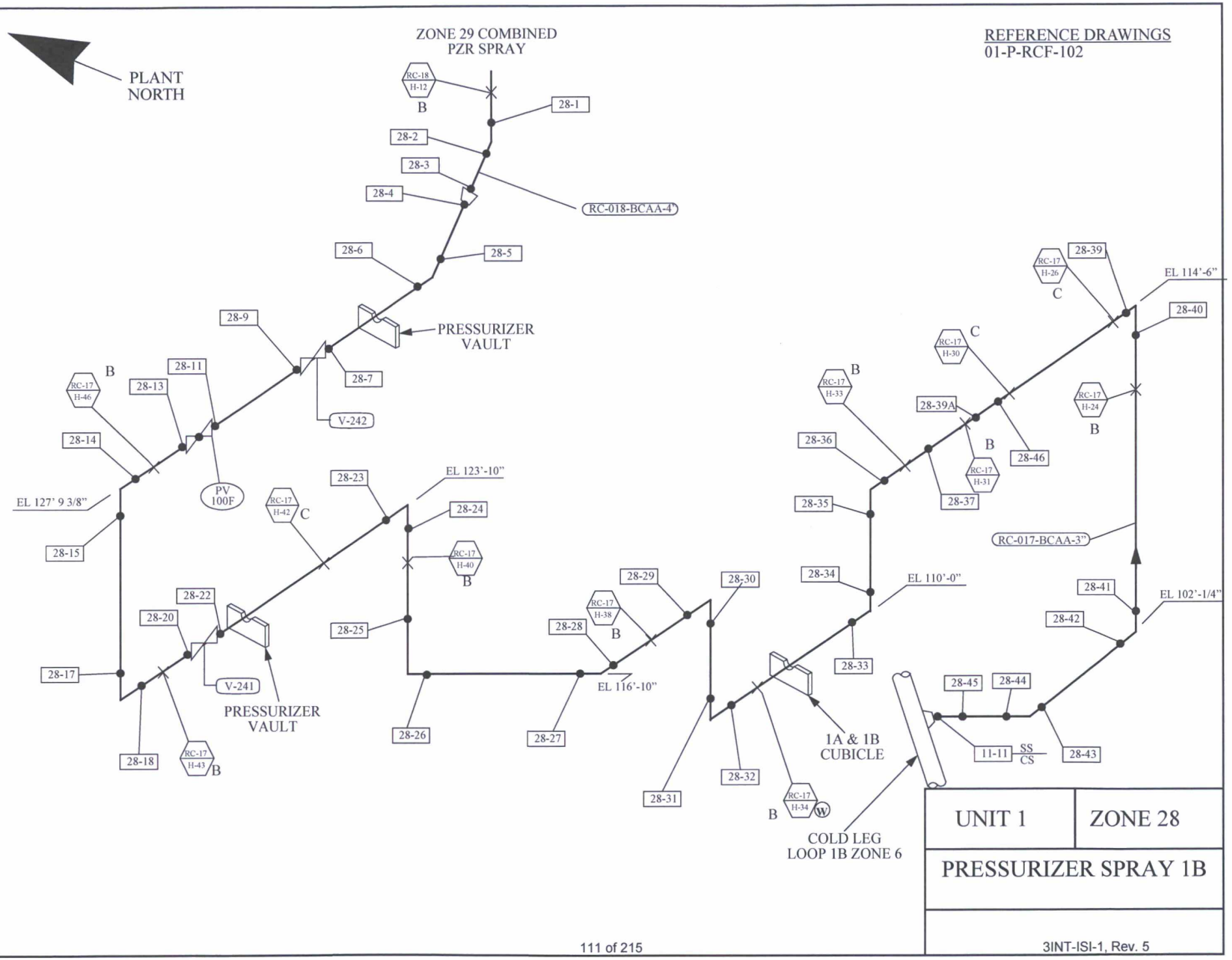
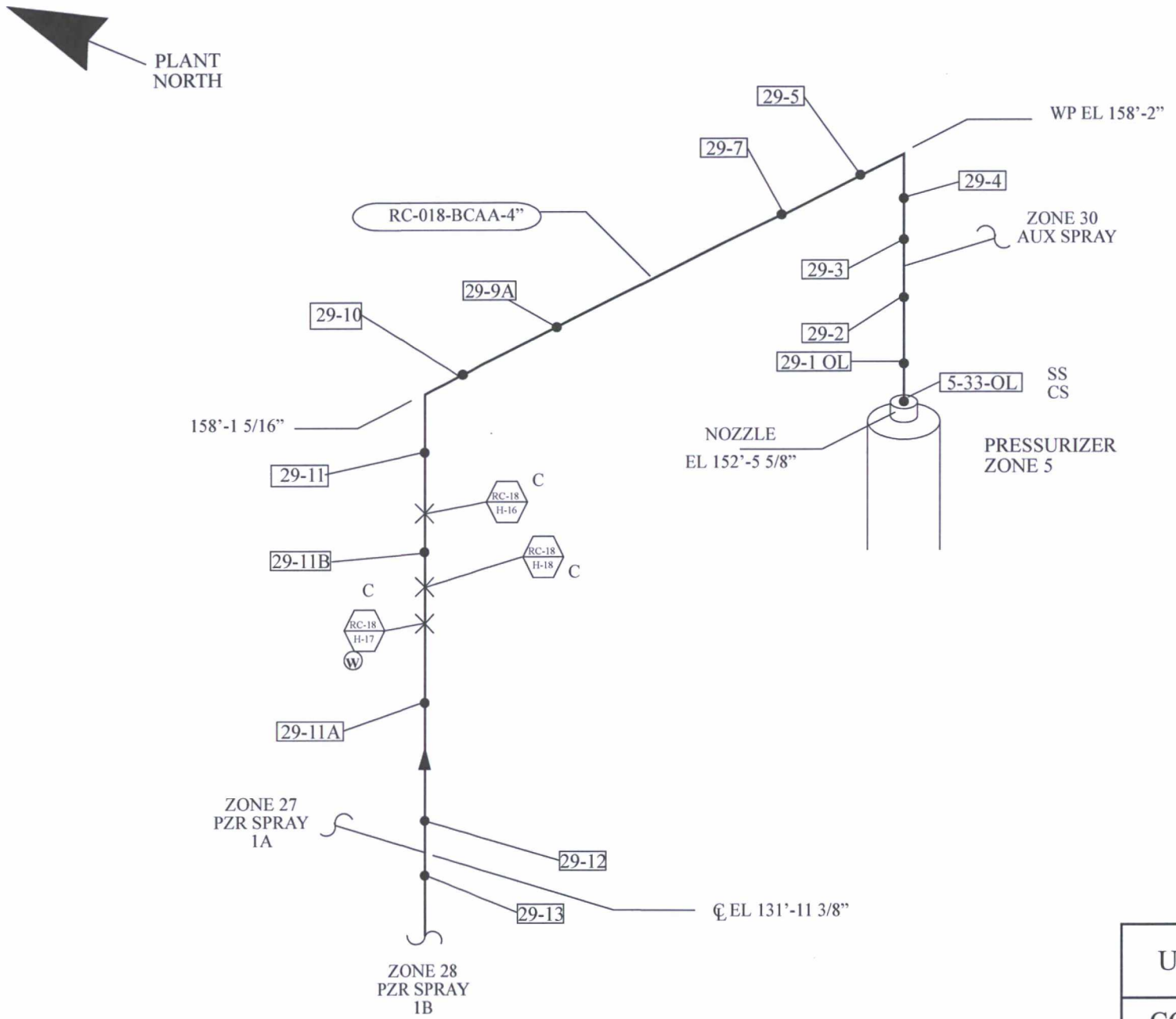
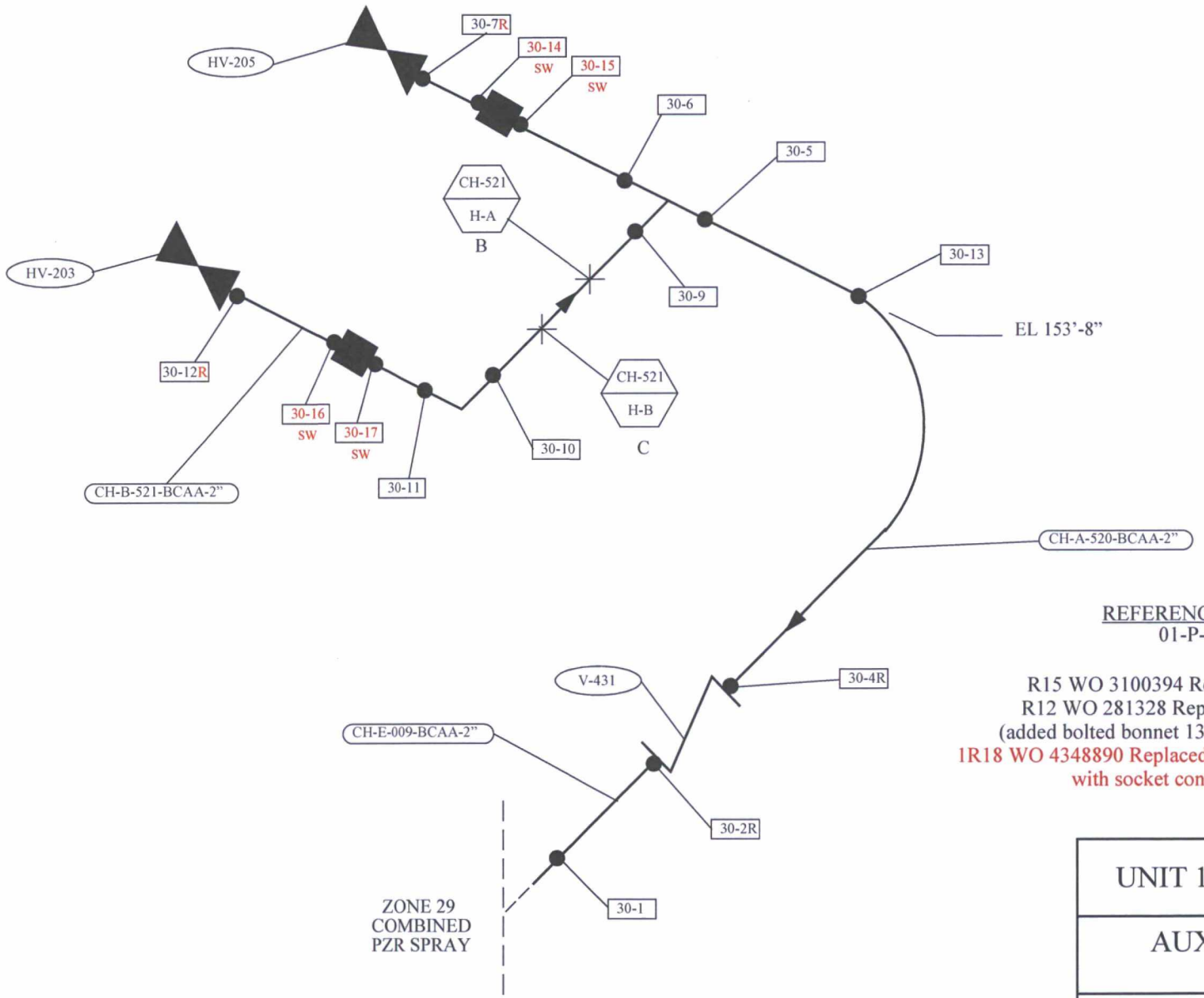
27-34
27-35
27-36
27-37
27-38
27-39
27-40
27-41
27-42
27-43
27-44
RC-16 H-7
RC-62 H-37
RC-62 H-38
RC-62 H-33
RC-62 H-32
RC-62 H-30
RC-62 H-28
RC-62 H-24
RC-62 H-21
RC-62 H-39
RC-62 H-26
RC-016-BCAA-3
RC-062-BCAA-3"
V-240
V-243
PV 100E
SS CS 9-11
COLD LEG LOOP 1A ZONE 6
PRESSURIZER VAULT
UNIT 1
ZONE 27
PRESSURIZER SPRAY 1A
3INT-ISI-1, Rev. 5


ZONE 29 COMBINED
PZR SPRAY
REFERENCE DRAWINGS
01-P-RCF-102
PLANT
NORTH
RC-18
H-12
B
28-1
28-2
28-3
28-4
RC-018-BCAA-4"
28-6
28-5
28-9
PRESSURIZER
VAULT
28-7
V-242
28-11
28-13
RC-17
H-46
B
28-14
EL 127' 9 3/8"
28-15
PV
100F
RC-17
H-42
C
28-23
EL 123'-10"
28-24
RC-17
H-40
B
28-25
28-22
28-20
28-17
V-241
PRESSURIZER
VAULT
28-18
RC-17
H-43
B
28-26
28-29
28-30
RC-17
H-38
B
28-28
EL 116'-10"
28-27
28-31
28-32
RC-17
H-34
W
B
COLD LEG
LOOP 1B ZONE 6
1A & 1B
CUBICLE
28-39
RC-17
H-26
C
EL 114'-6"
28-40
RC-17
H-30
C
RC-17
H-33
B
28-39A
B
RC-17
H-24
B
28-36
28-46
RC-17
H-31
28-37
28-35
RC-017-BCAA-3"
28-34
EL 110'-0"
28-41
EL 102'-1/4"
28-42
28-33
28-45
28-44
11-11
SS
CS
28-43
UNIT 1
ZONE 28
PRESSURIZER SPRAY 1B




| UNIT 1 | ZONE 29 |
|---|---|
| COMBINED PZR SPRAY | |
| | 3INT-ISI-1, Rev. 5 |

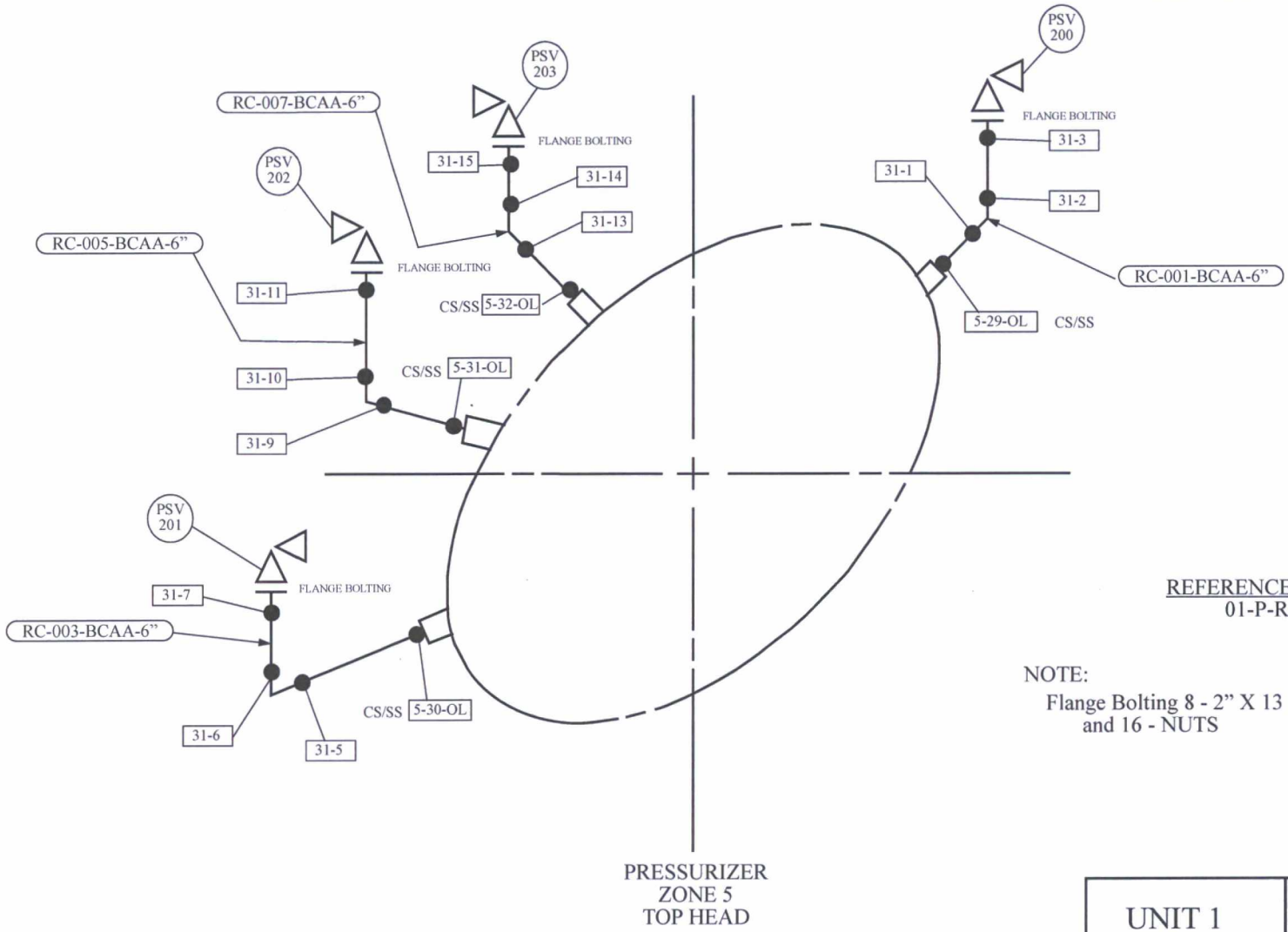



REFERENCE DRAWINGS
01-P-CHF-107

R15 WO 3100394 Replaced V431
R12 WO 281328 Replaced 203/205
(added bolted bonnet 13-JN699-Z00014)
1R18 WO 4348890 Replaced HV-203 and HV-205
with socket connections

| UNIT 1 | ZONE 30 |
|---|---|
| AUX. PZR SPRAY | |

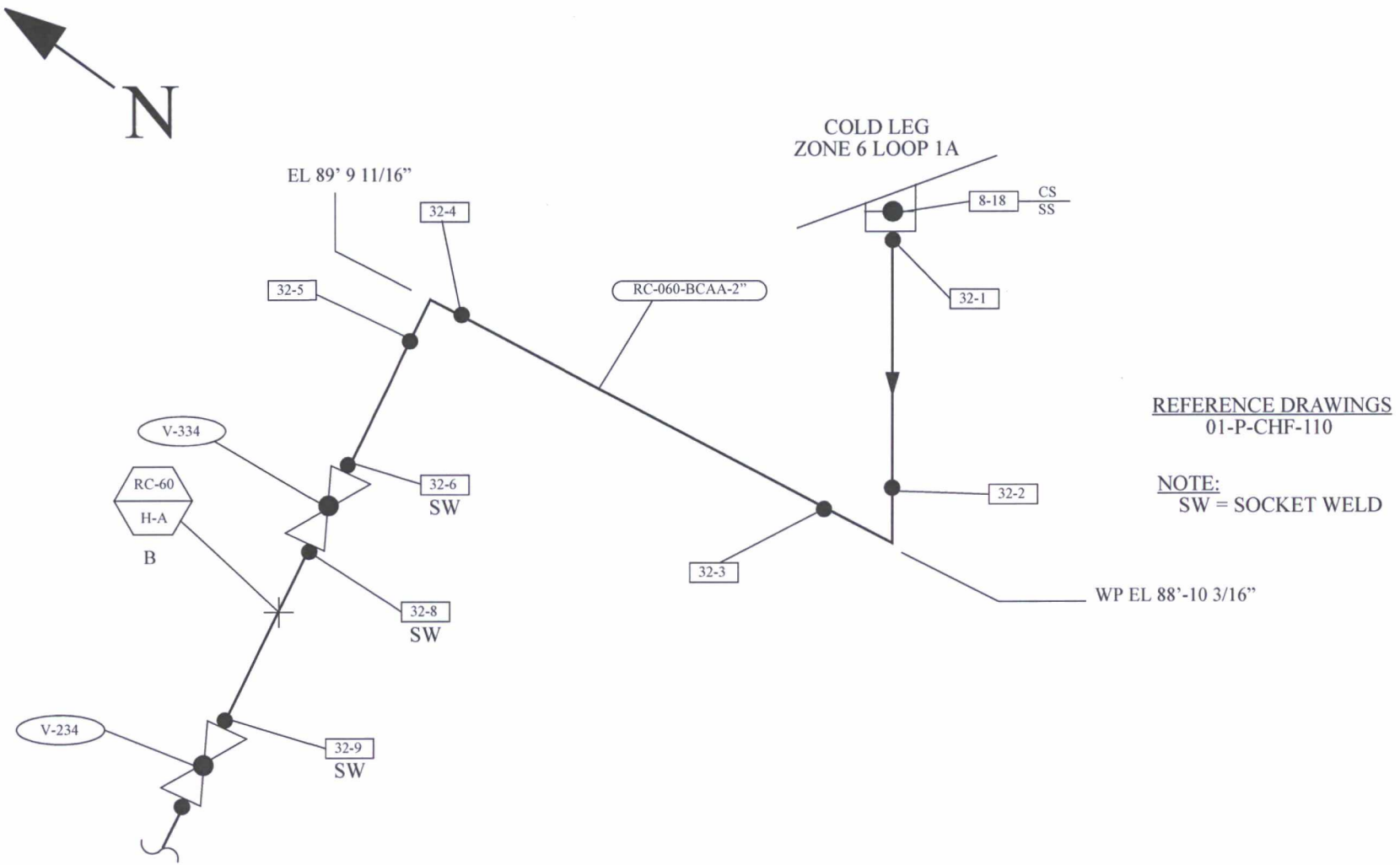
OL = FSW Overlaid (MRP-139)
R13 WO 2967764 for RC-001
R13 WO 2967769 for RC-003
R13 WO 2967774 for RC-005
R13 WO 2967779 for RC-007




REFERENCE DRAWINGS
01-P-RCF-114

NOTE:
Flange Bolting 8 - 2" X 13 1/2" Studs
and 16 - NUTS

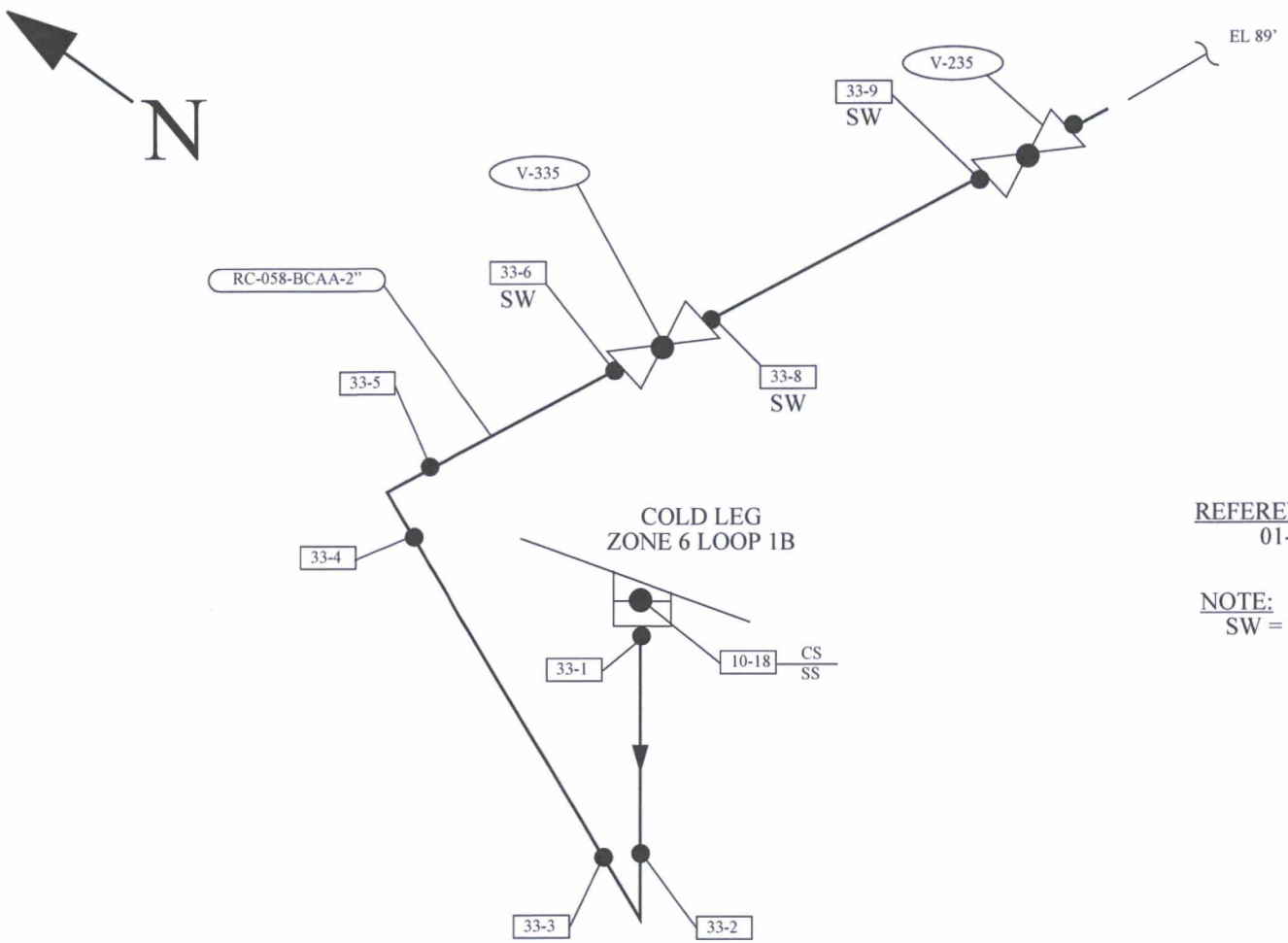
| UNIT 1 | ZONE 31 |
|---|---|
| PRESSURIZER SAFETIES | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS
01-P-CHF-110

NOTE:
SW = SOCKET WELD

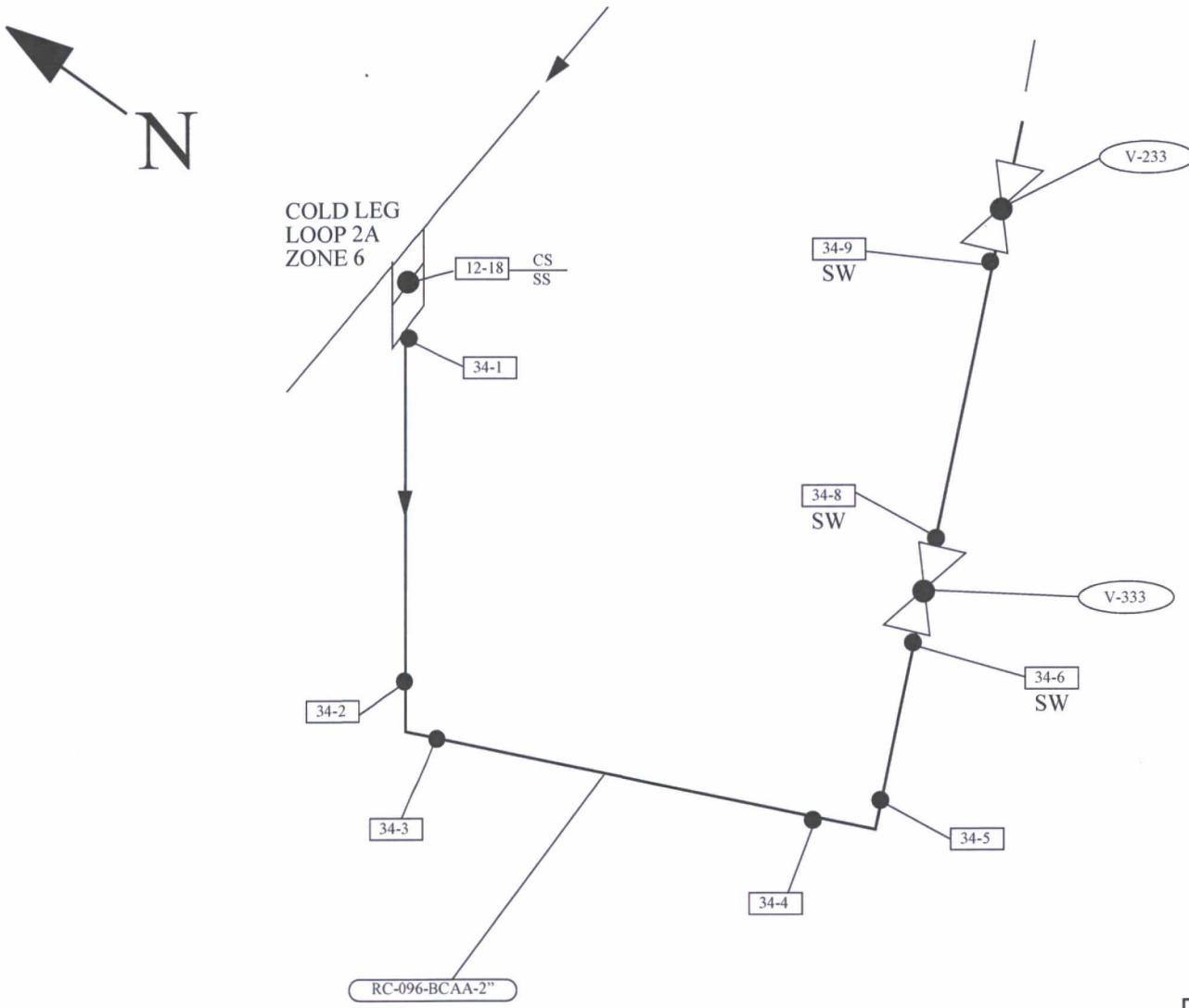
| UNIT 1 | ZONE 32 |
|---|---|
| DRAIN LINE 1A | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS
01-P-CHF-110

NOTE:
SW = SOCKET WELD

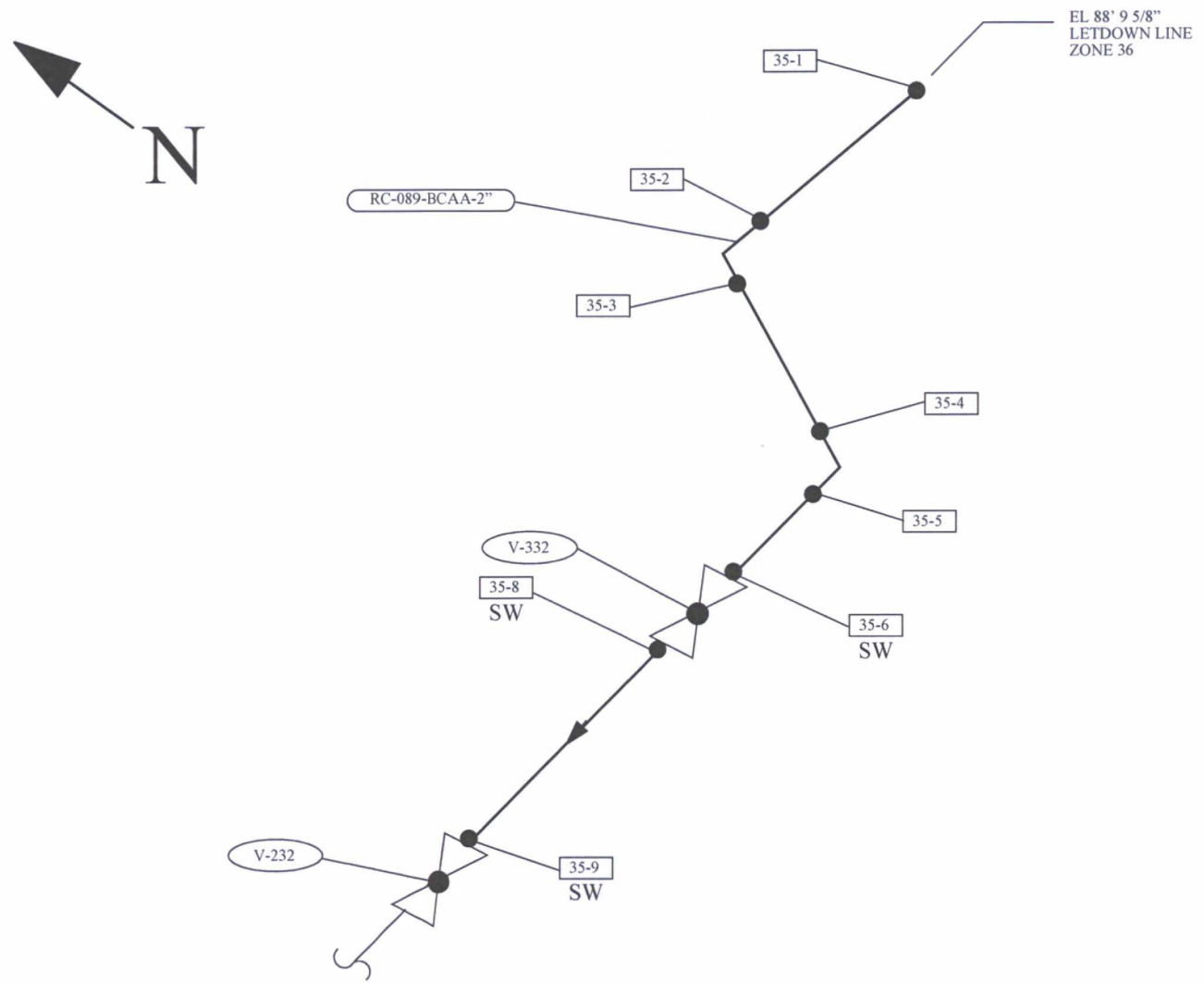
| UNIT 1 | ZONE 33 |
|---|---|
| DRAIN LINE 1B | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS
01-P-CHF-110

NOTE:
SW = SOCKET WELD

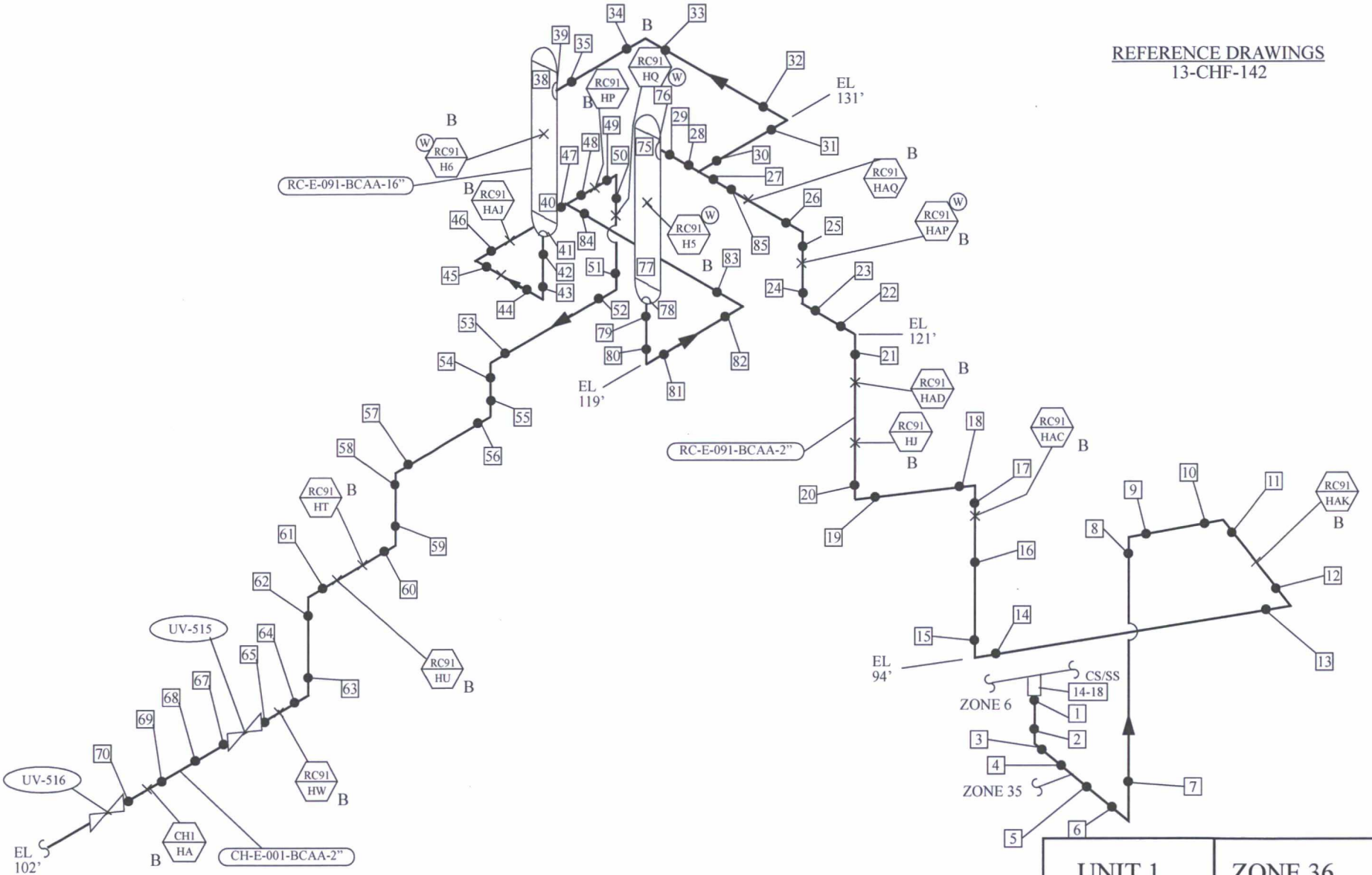
| UNIT 1 | ZONE 34 |
|---|---|
| DRAIN LINE 2A | |
| | 3INT-ISI-1, Rev. 5 |

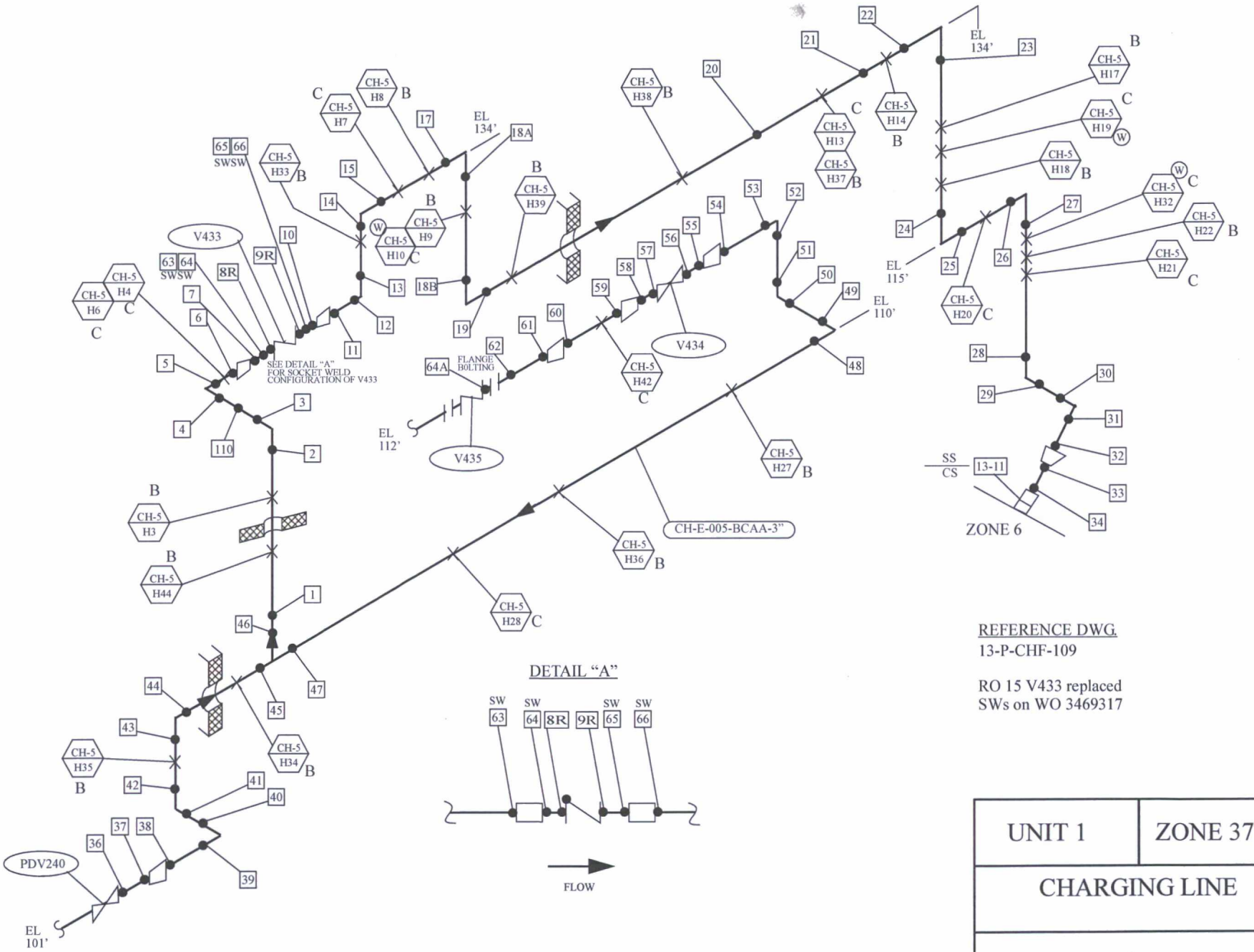



REFERENCE DRAWINGS
01-P-CHF-110

NOTE:
SW = SOCKET WELD

| UNIT 1 | ZONE 35 |
|---|---|
| DRAIN LINE 2B | |
| | 3INT-ISI-1, Rev. 5 |


REFERENCE DRAWINGS
13-CHF-142
RC-E-091-BCAA-16"
RC-E-091-BCAA-2"
CH-E-001-BCAA-2"
UV-515
UV-516
RC91 HP
RC91 HQ
RC91 H6
RC91 HAJ
RC91 H5
RC91 HAQ
RC91 HAP
RC91 HAD
RC91 HJ
RC91 HAC
RC91 HAK
RC91 HT
RC91 HU
RC91 HW
CH1 HA
EL 131'
EL 121'
EL 119'
EL 102'
EL 94'
ZONE 6
ZONE 35
CS/SS 14-18
UNIT 1
ZONE 36
LETDOWN LINE




REFERENCE DWG.
13-P-CHF-109

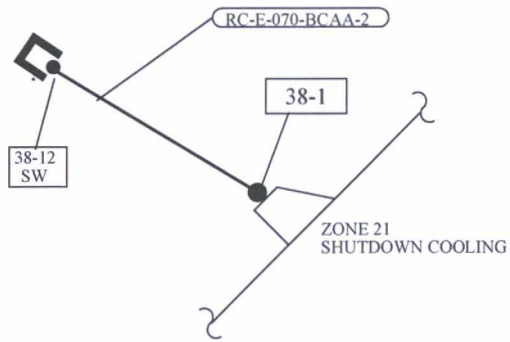
RO 15 V433 replaced
SWs on WO 3469317

| UNIT 1 | ZONE 37 |
|---|---|
| CHARGING LINE | |
| | 3INT-ISI-1, Rev. 5 |

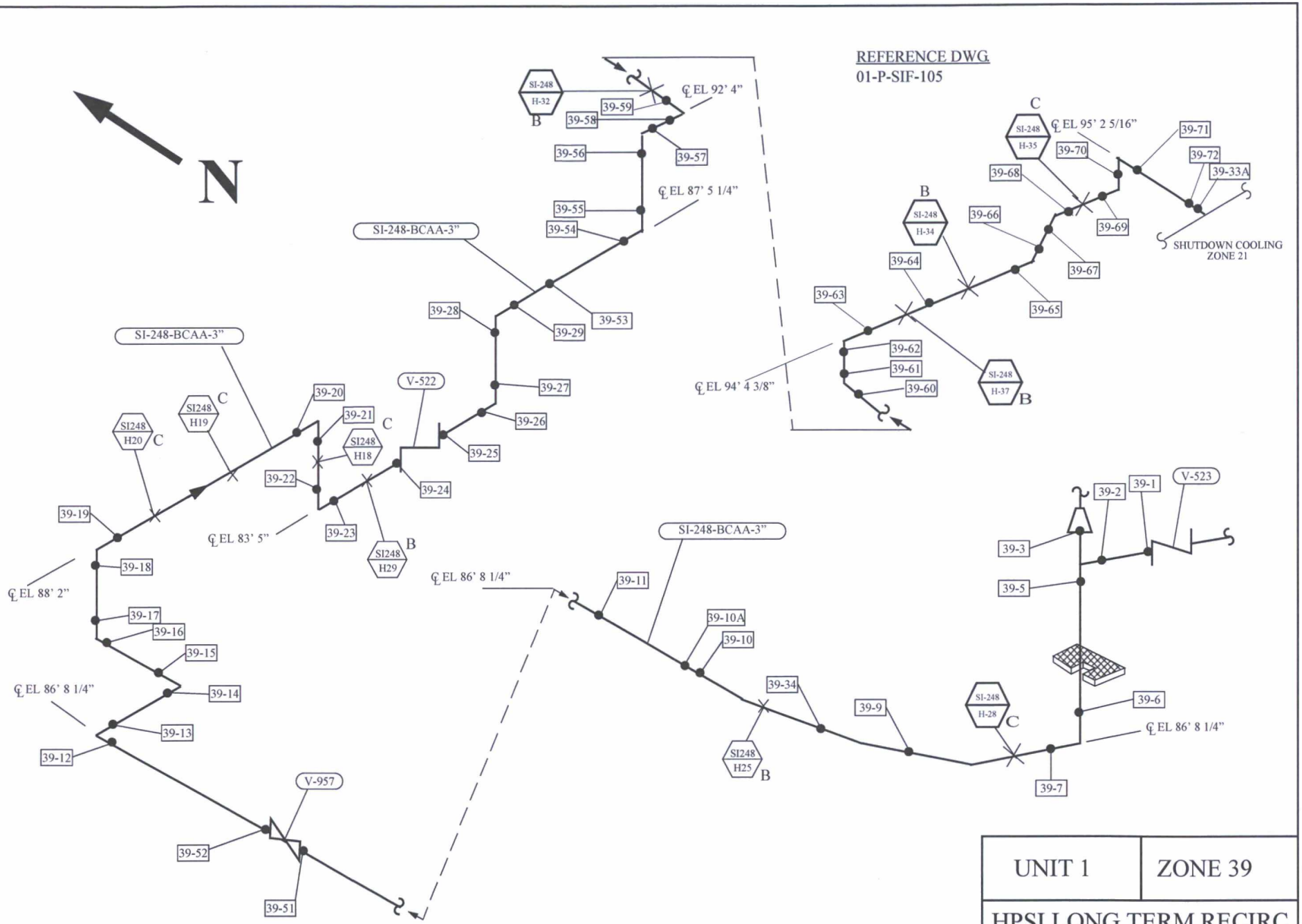
REFERENCE DRAWINGS
01-P-SIF-105

NOTE:

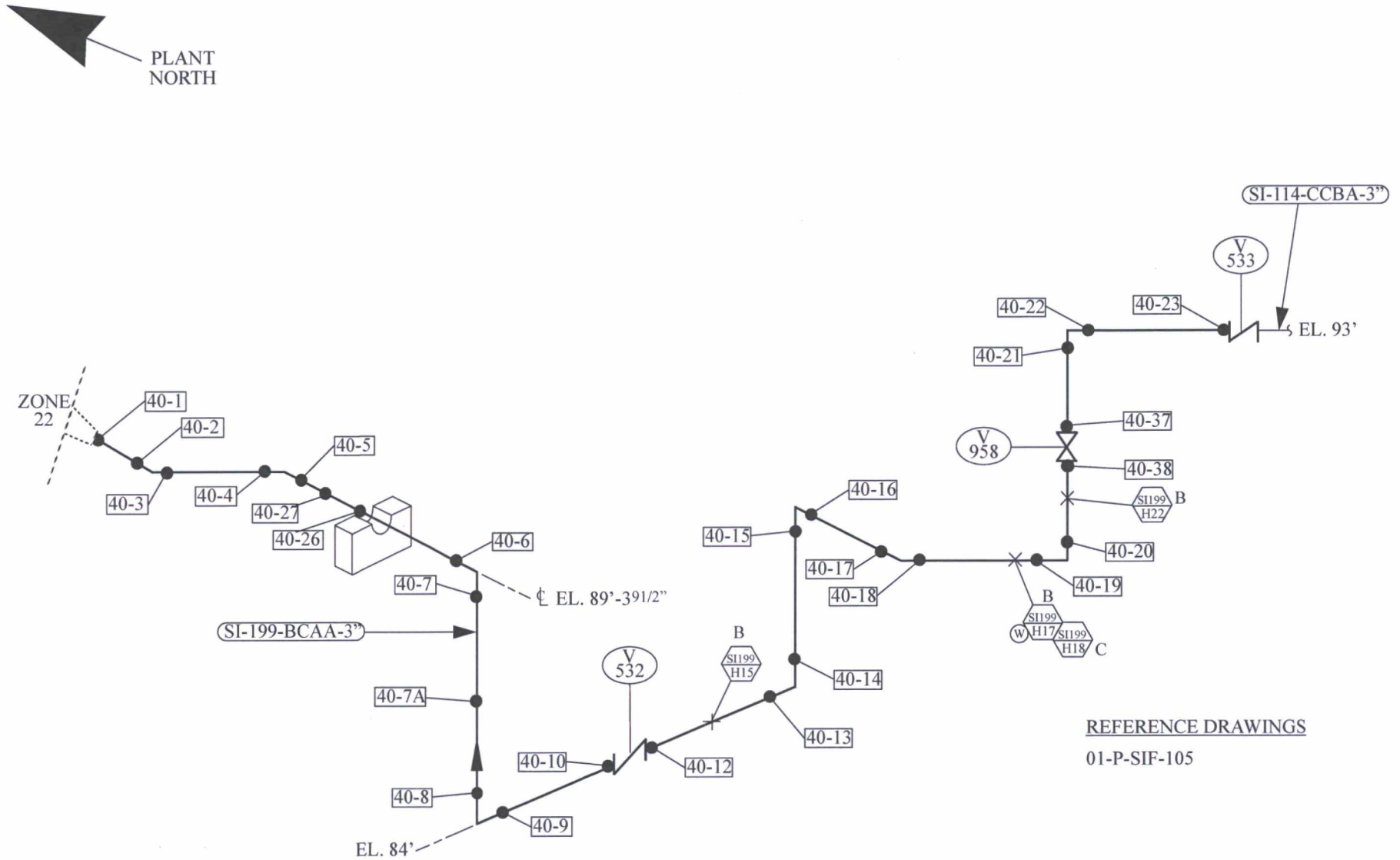
SW = SOCKET WELD




| UNIT 1 | ZONE 38 |
|---|---|
| DRAIN LINE LOOP 1 | |
| | 3INT-ISI-1, Rev. 5 |




| UNIT 1 | ZONE 39 |
|---|---|
| HPSI LONG TERM RECIRC LOOP 1 | |
| | 3INT-ISI-1, Rev. 5 |




| UNIT 1 | ZONE 40 |
|---|---|
| HPSI LONG TERM RECIRCULATION 2 | |
| | 3INT-ISI-1, Rev. 5 |

## NOTES:

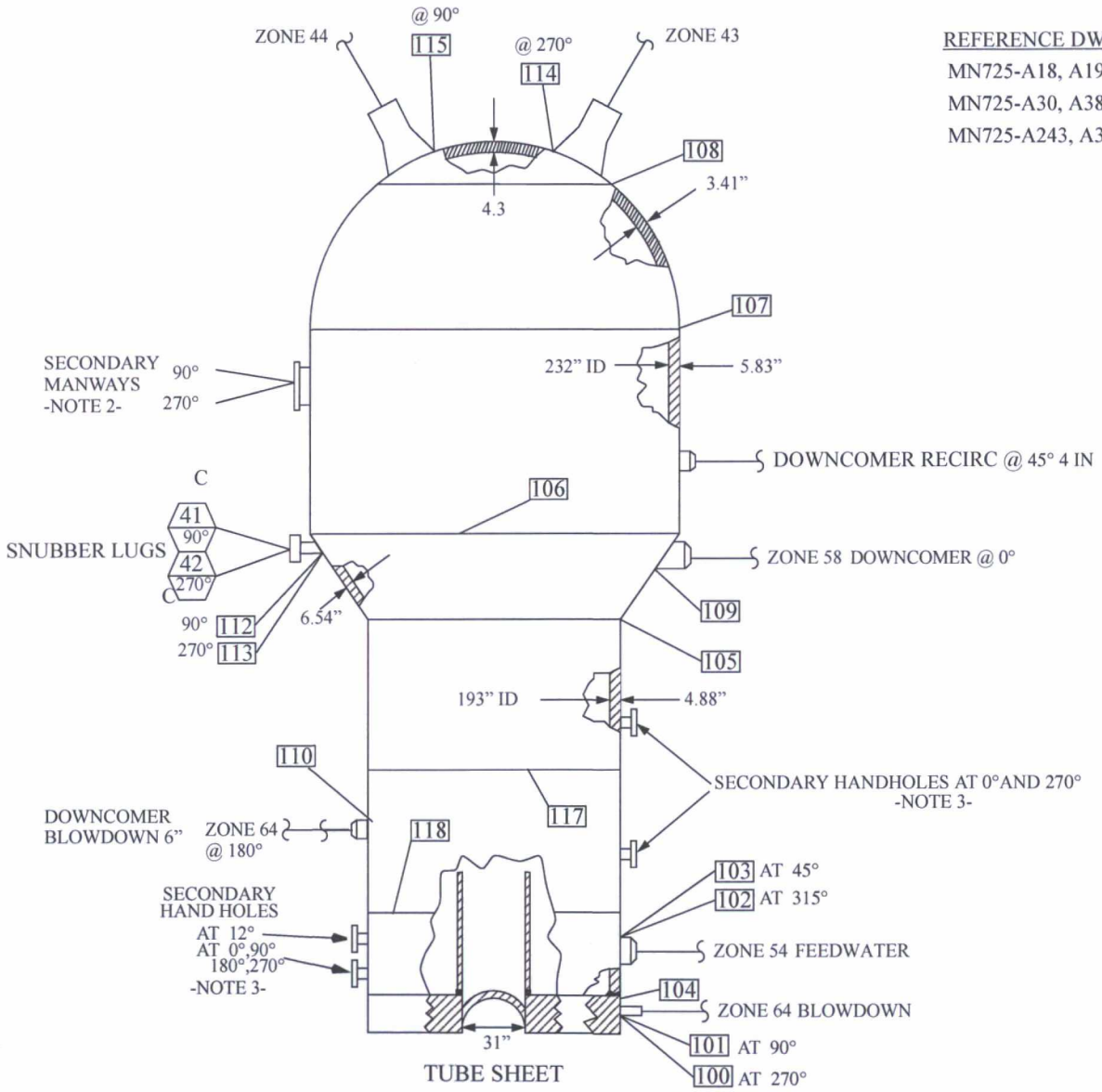
1) 0° IS AT CENTER OF PRI COLD LEG MANWAY
2) STUDS ARE 16 - 1.5" X 9"
3) STUDS ARE 16 - 1" X 6"
4) TAG NO. 1MRCEE01A
   SERIAL NO. 224
   N.B. NO. 173

REFERENCE DWGS:

MN725-A18, A19, A26, A28 and A29

MN725-A30, A38, A54 and A55

MN725-A243, A390 and A395




| UNIT 1 | ZONE 41 |
|---|---|
| STEAM GENERATOR 1 | |
| | 3INT-ISI-1, Rev. 5 |

## NOTES:

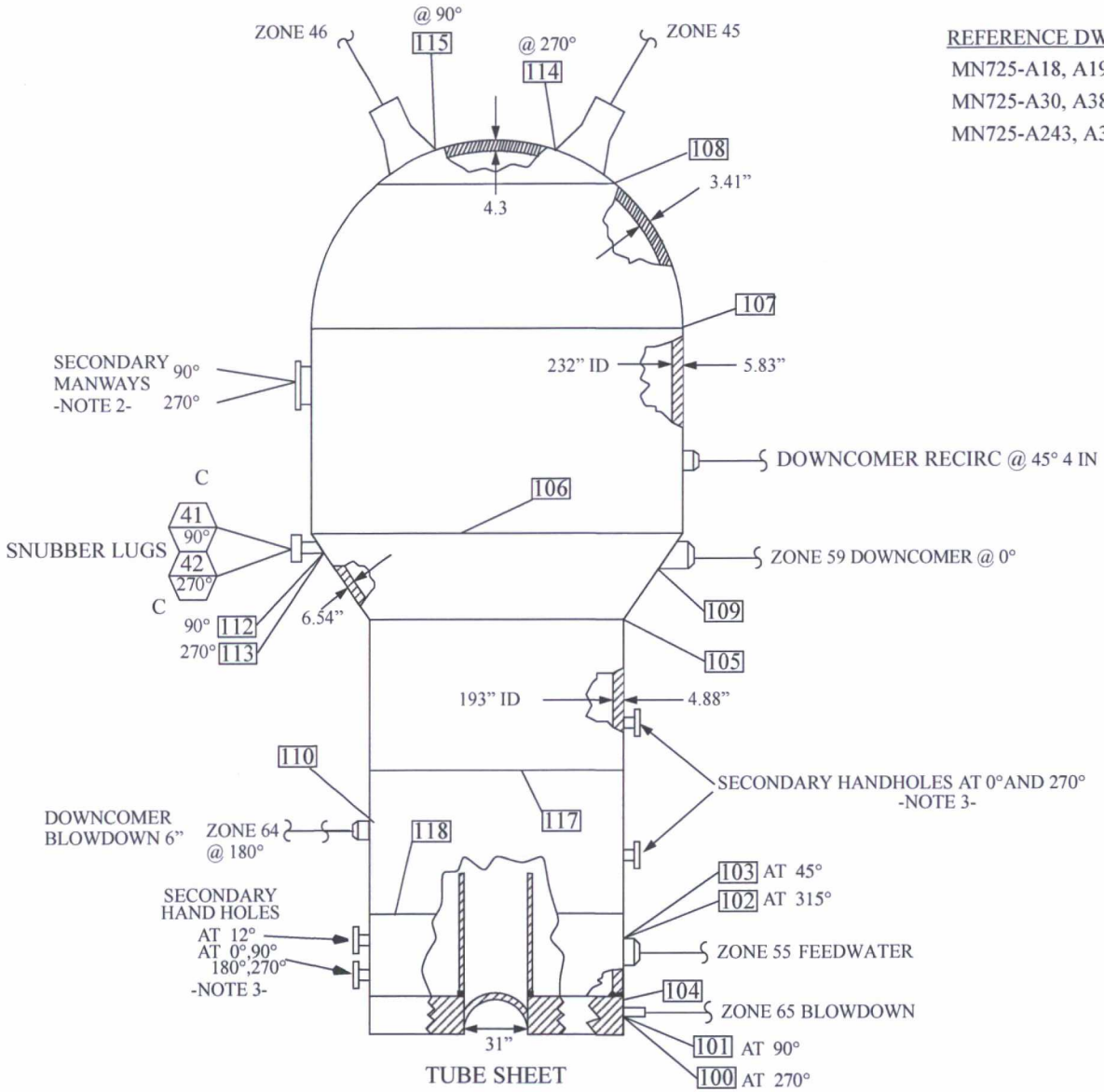
1) 0° IS AT CENTER OF PRI COLD LEG MANWAY
2) STUDS ARE 16 - 1.5" X 9"
3) STUDS ARE 16 - 1" X 6"
4) TAG NO. 1MRCEE01B
   SERIAL NO. 225
   N.B. NO. 174

REFERENCE DWGS:

MN725-A18, A19, A26, A28 and A29

MN725-A30, A38, A54 and A55

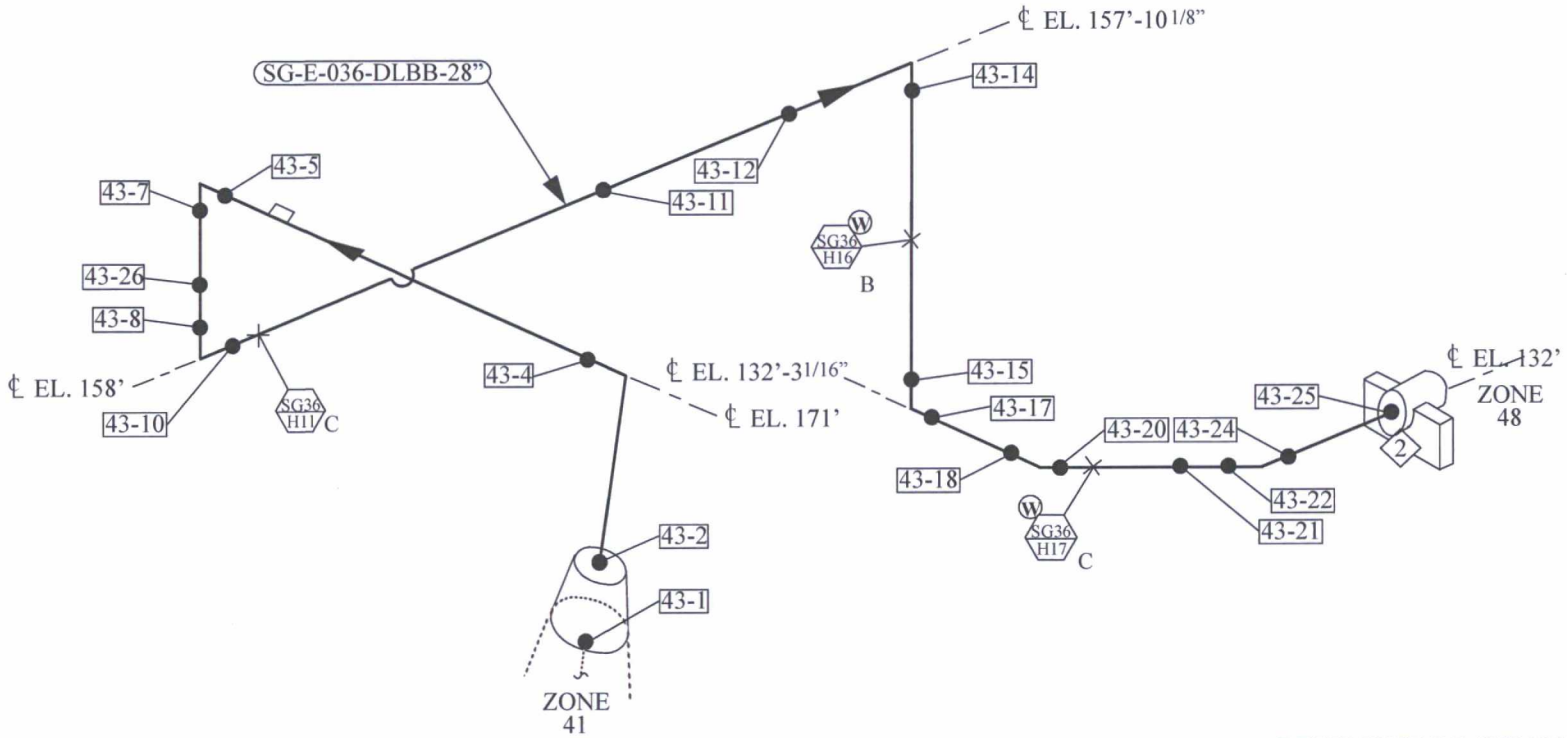
MN725-A243, A390 and A395




| UNIT 1 | ZONE 42 |
|---|---|
| STEAM GENERATOR 2 | |

PLANT
NORTH

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-36 | 32" x 2.00" | 43-1 | - |
| SG-36 | 28" x 1.25" | 43-2 | 43-25 |



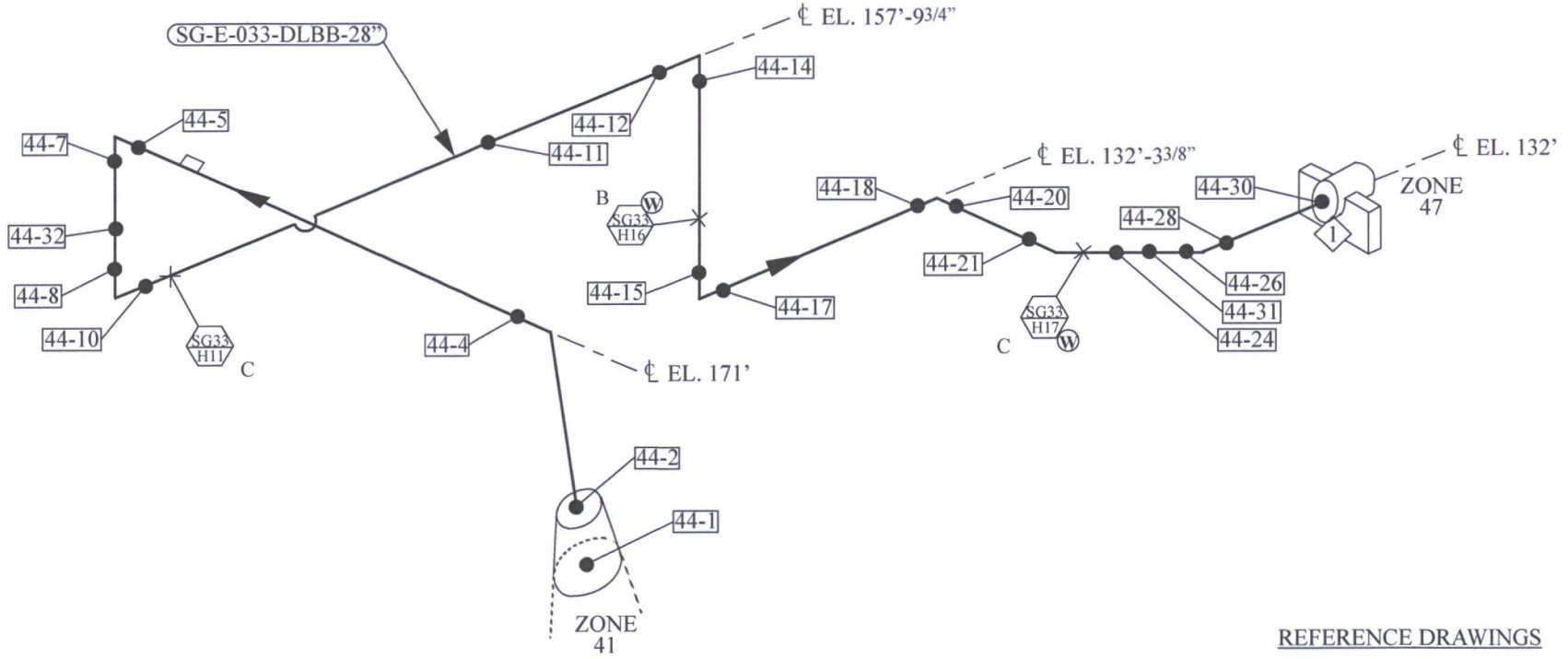

REFERENCE DRAWINGS

01-P-SGF-118

| UNIT 1 | ZONE 43 |
|---|---|
| MAIN STEAM (EAST) STEAM GENERATOR 1 | |
| | 3INT-ISI-1, Rev. 5 |

PLANT
NORTH

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-33 | 32" x 2.00" | 44-1 | - |
| SG-33 | 28" x 1.25" | 44-2 | 44-30 |

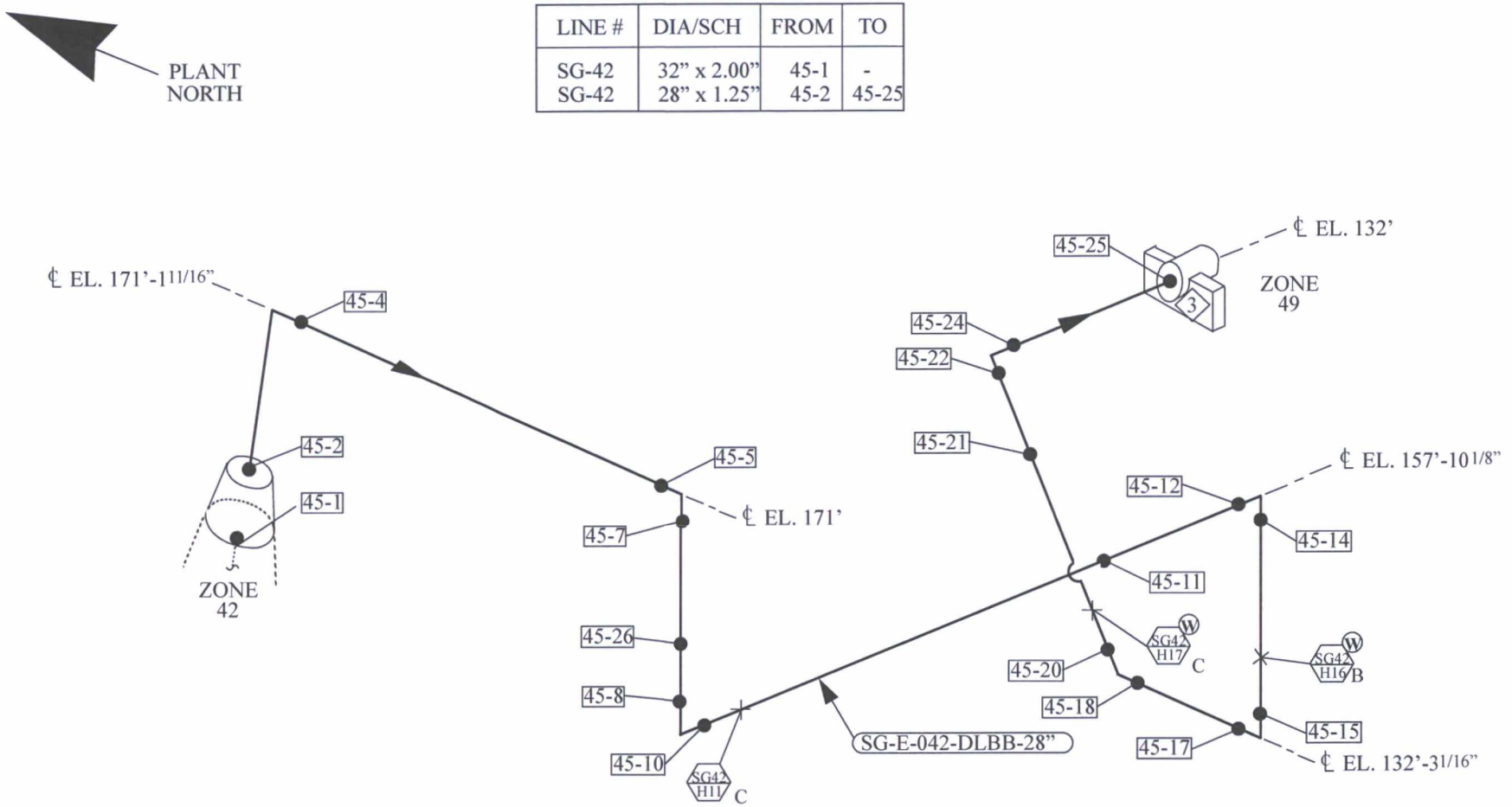



REFERENCE DRAWINGS

01-P-SGF-118

| UNIT 1 | ZONE 44 |
|---|---|
| MAIN STEAM (WEST) STEAM GENERATOR 1 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-42 | 32" x 2.00" | 45-1 | - |
| SG-42 | 28" x 1.25" | 45-2 | 45-25 |

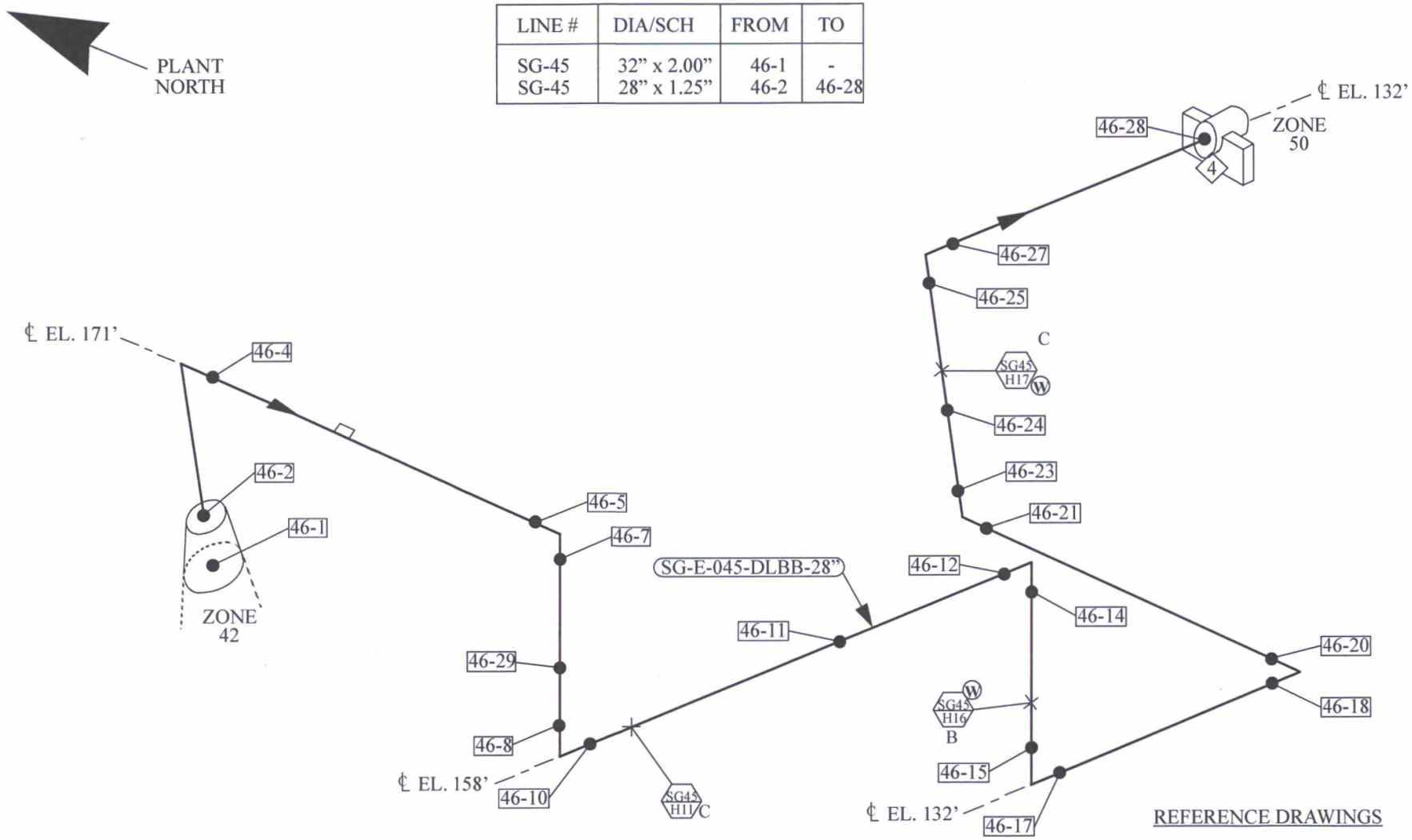



REFERENCE DRAWINGS

01-P-SGF-118

| UNIT 1 | ZONE 45 |
|---|---|
| MAIN STEAM (EAST) STEAM GENERATOR 2 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-45 | 32" x 2.00" | 46-1 | - |
| SG-45 | 28" x 1.25" | 46-2 | 46-28 |



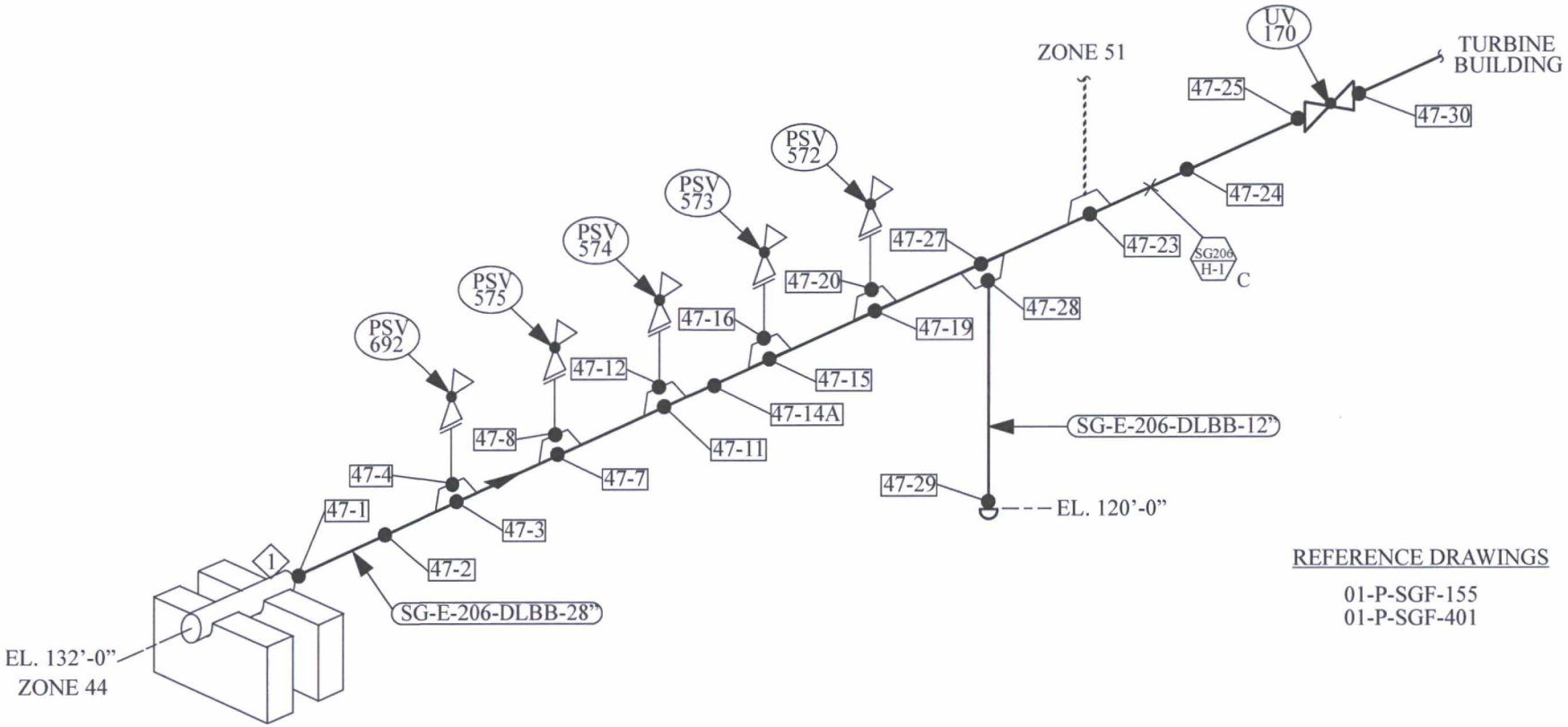

REFERENCE DRAWINGS

01-P-SGF-118

| UNIT 1 | ZONE 46 |
|---|---|
| MAIN STEAM (WEST) STEAM GENERATOR 2 | |
| | 3INT-ISI-1, Rev. 5 |

PLANT NORTH

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-206 | 28"x 1.750" | 47-1 | 47-30 |
| SG-206 | 6"x 1.500" | 47-4 | 47-20 |
| SG-206 | 12"x 0.844" | 47-28 | 47-29 |




REFERENCE DRAWINGS

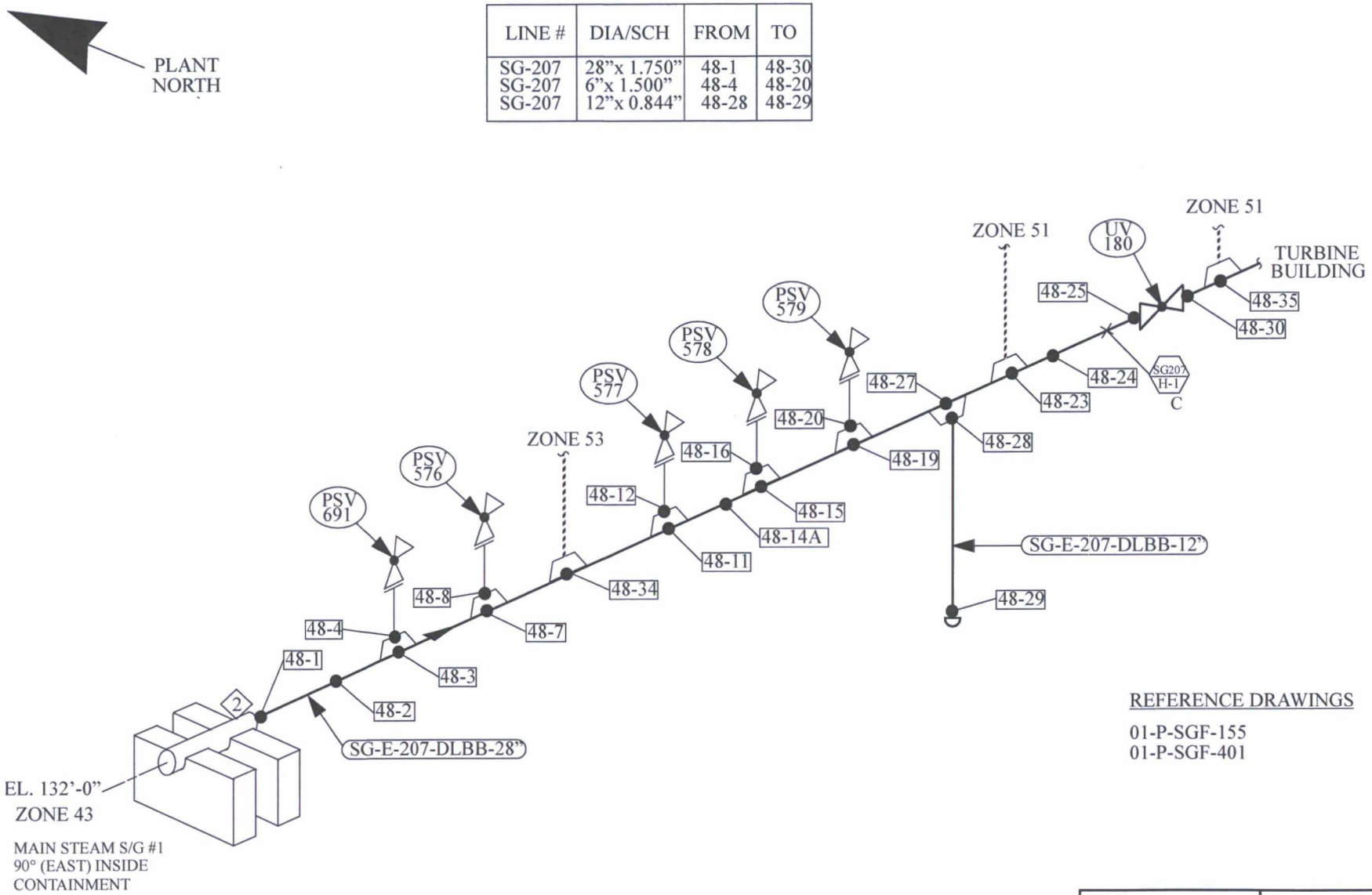
01-P-SGF-155
01-P-SGF-401

NOTE:

1 - MAIN STEAM RELIEF VALVE 12-1 1/4"DIA. FLANGE BOLTS PER VALVE
2 - MSIV, 20-2 1/4"DIA. BODY TO BONNET BOLTS

| UNIT 1 | ZONE 47 |
|---|---|
| MAIN STEAM (WEST) STEAM GENERATOR 1 | |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-207 | 28"x 1.750" | 48-1 | 48-30 |
| SG-207 | 6"x 1.500" | 48-4 | 48-20 |
| SG-207 | 12"x 0.844" | 48-28 | 48-29 |




REFERENCE DRAWINGS

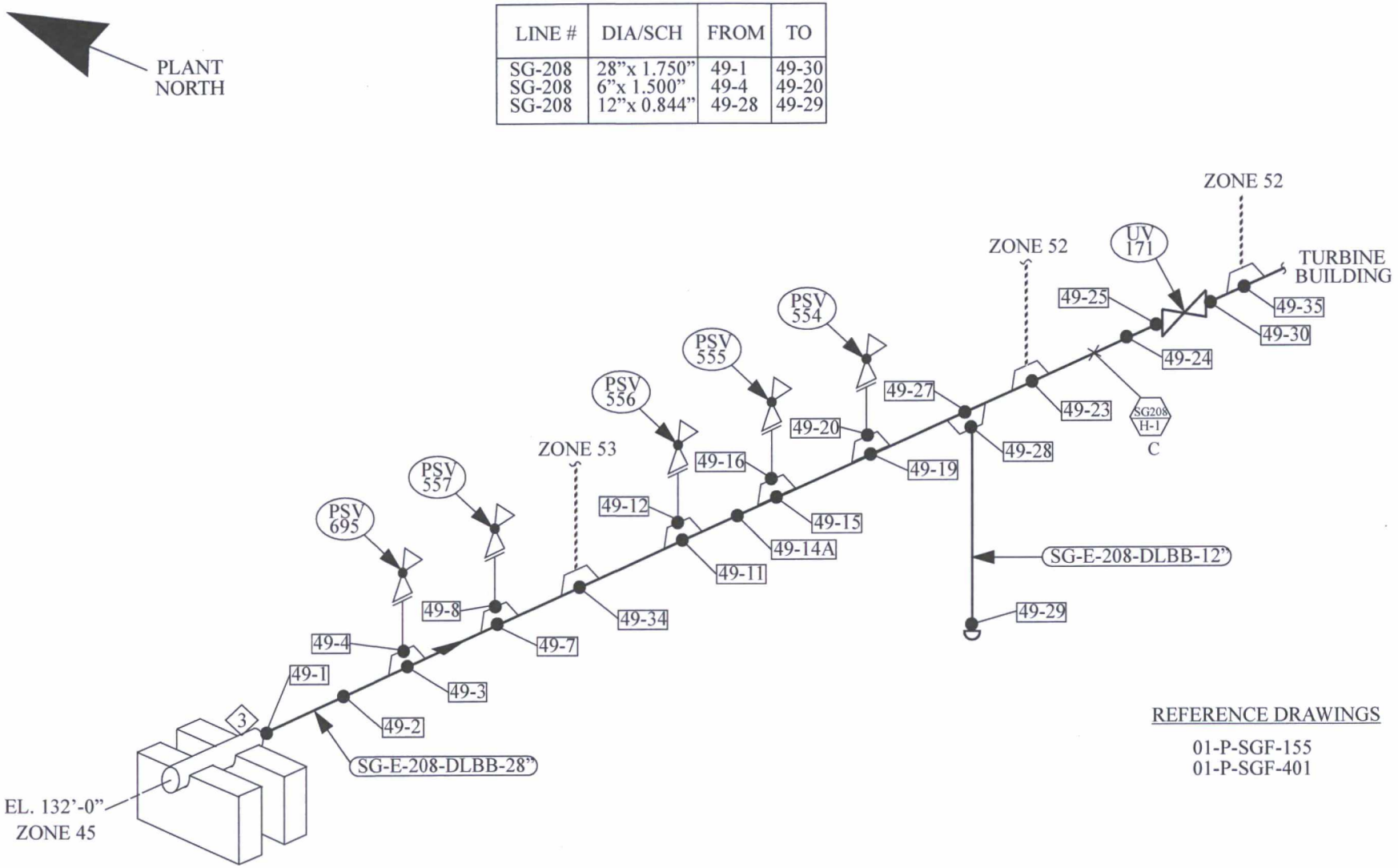
01-P-SGF-155
01-P-SGF-401

NOTE:

1 - MAIN STEAM RELIEF VALVE 12-1 1/4"DIA. FLANGE BOLTS PER VALVE
2 - MSIV, 20-2 1/4"DIA. BODY TO BONNET BOLTS

| UNIT 1 | ZONE 48 |
|---|---|
| MAIN STEAM (EAST) STEAM GENERATOR 1 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-208 | 28"x 1.750" | 49-1 | 49-30 |
| SG-208 | 6"x 1.500" | 49-4 | 49-20 |
| SG-208 | 12"x 0.844" | 49-28 | 49-29 |




REFERENCE DRAWINGS

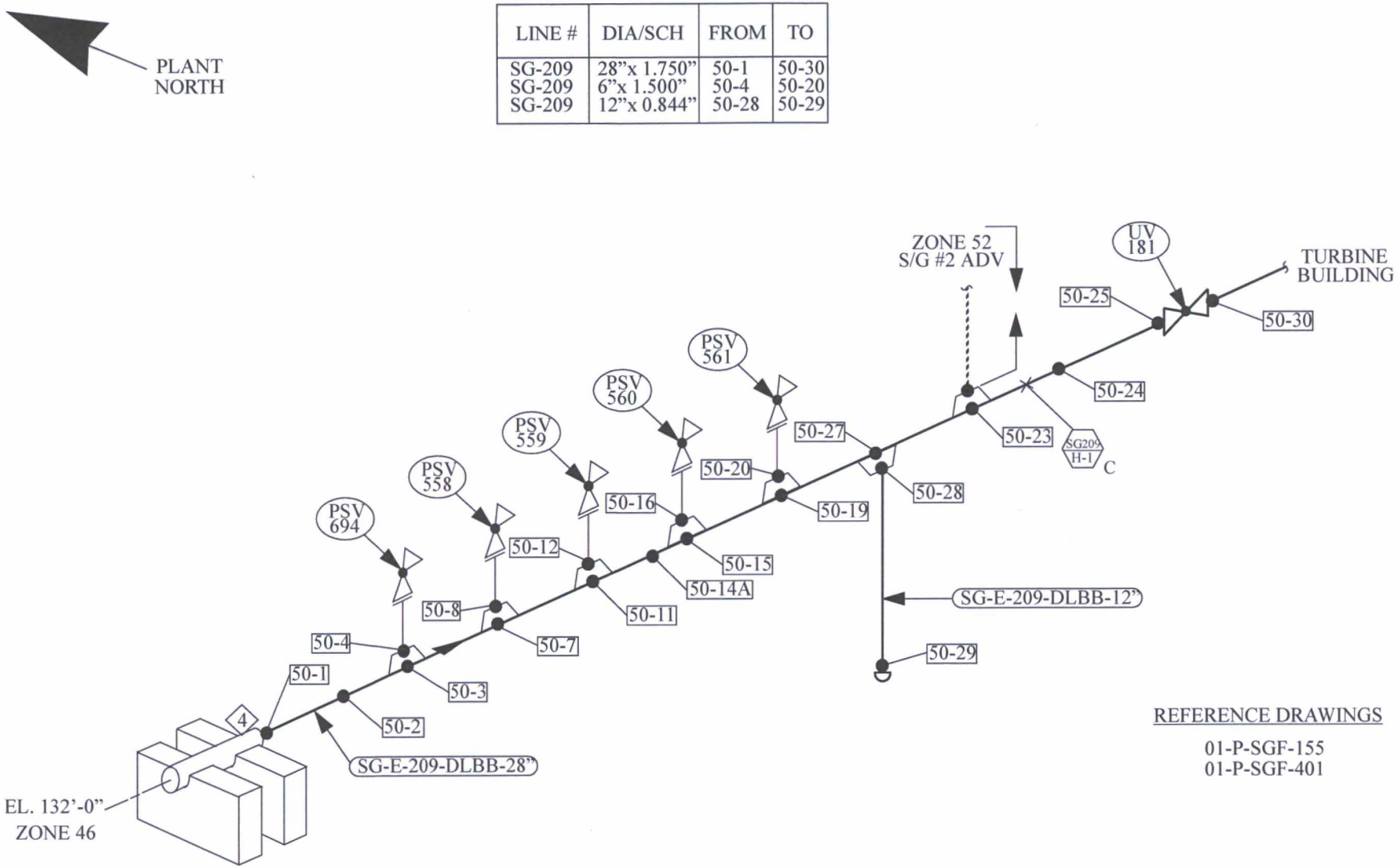
01-P-SGF-155
01-P-SGF-401

NOTE:

1 - MAIN STEAM RELIEF VALVE 12-1 1/4"DIA. FLANGE BOLTS PER VALVE
2 - MSIV, 20-2 1/4"DIA. BODY TO BONNET BOLTS

| UNIT 1 | ZONE 49 |
|---|---|
| MAIN STEAM (EAST) STEAM GENERATOR 2 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-209 | 28"x 1.750" | 50-1 | 50-30 |
| SG-209 | 6"x 1.500" | 50-4 | 50-20 |
| SG-209 | 12"x 0.844" | 50-28 | 50-29 |



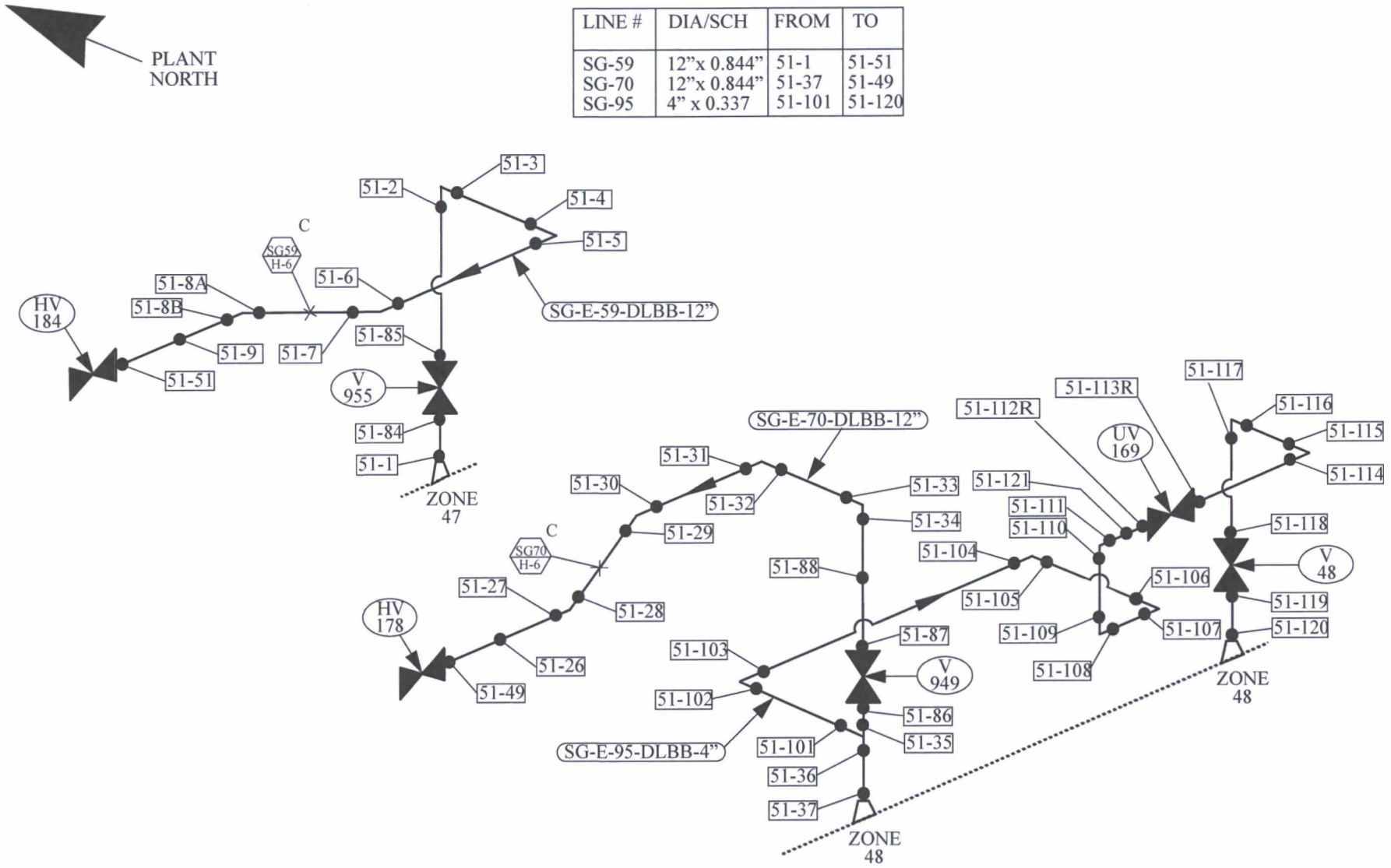

REFERENCE DRAWINGS

01-P-SGF-155
01-P-SGF-401

NOTE:

1 - MAIN STEAM RELIEF VALVE 12-1 1/4"DIA. FLANGE BOLTS PER VALVE
2 - MSIV, 20-2 1/4"DIA. BODY TO BONNET BOLTS

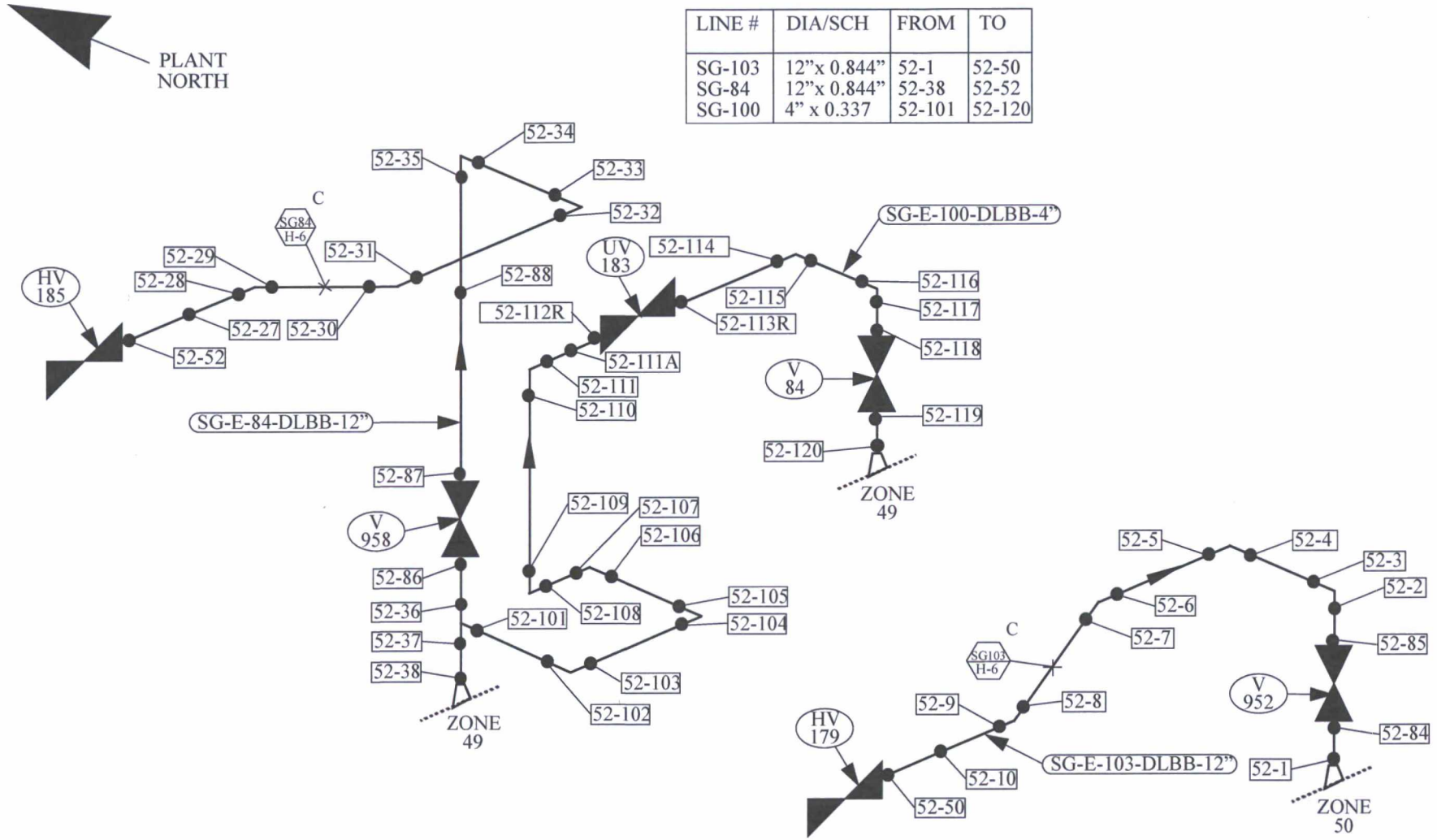
| UNIT 1 | ZONE 50 |
|---|---|
| MAIN STEAM (WEST) STEAM GENERATOR 2 | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS

01-P-SGF-158
R17 WO 3779460
Replaced valve UV169
Welds 112R and 113R

| UNIT 1 | ZONE 51 |
|---|---|
| ATMOSPHERIC DUMP 1 | |



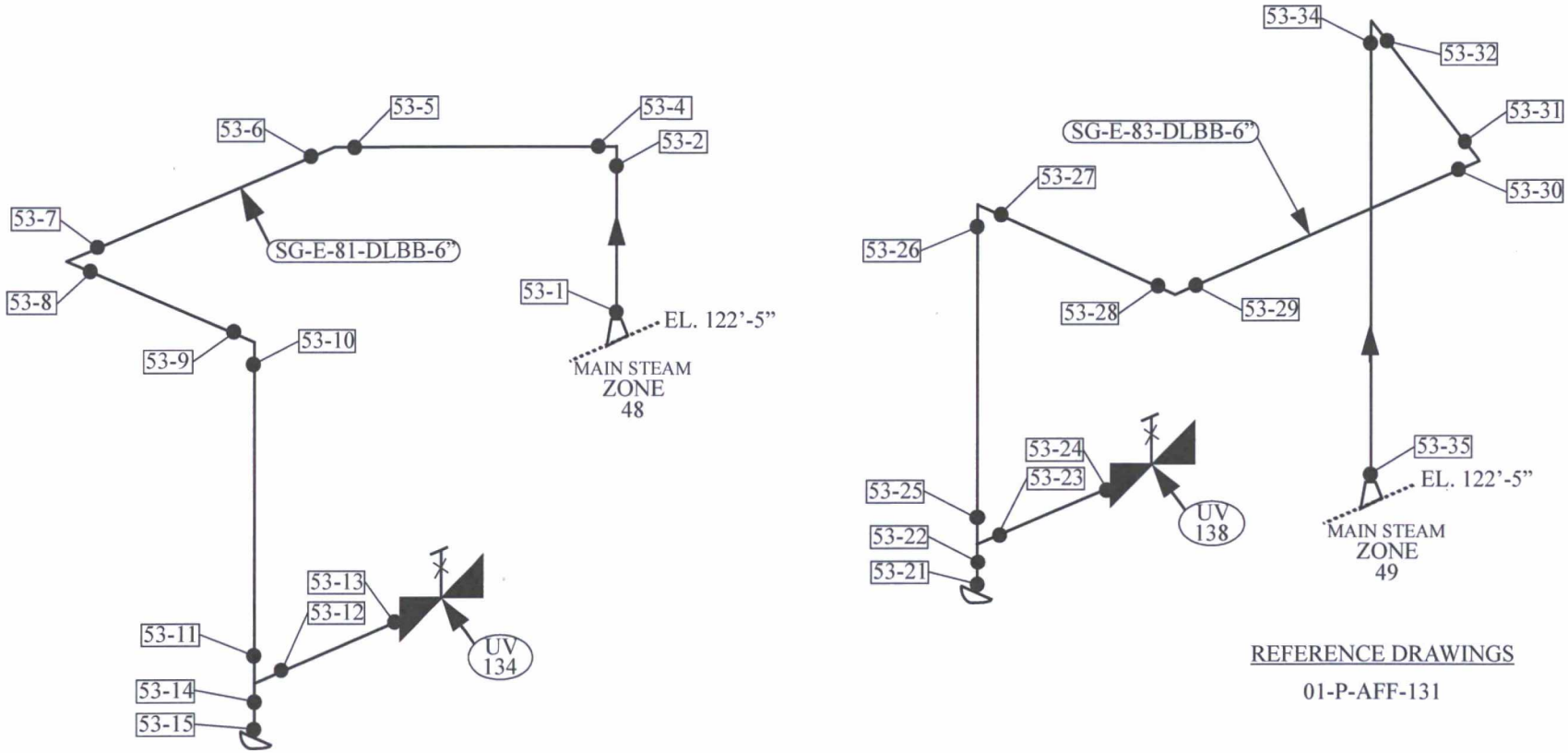

REFERENCE DRAWINGS

01-P-SGF-158
R17 WO 3779468
Replaced V183
Welds 112R and 113R

| UNIT 1 | ZONE 52 |
|---|---|
| ATMOSPHERIC DUMP 2 | |
| | 3INT-ISI-1, Rev. 5 |

PLANT
NORTH

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-81 | 6"x 0.432" | 53-1 | 53-15 |
| SG-83 | 6"x 0.432" | 53-21 | 53-35 |

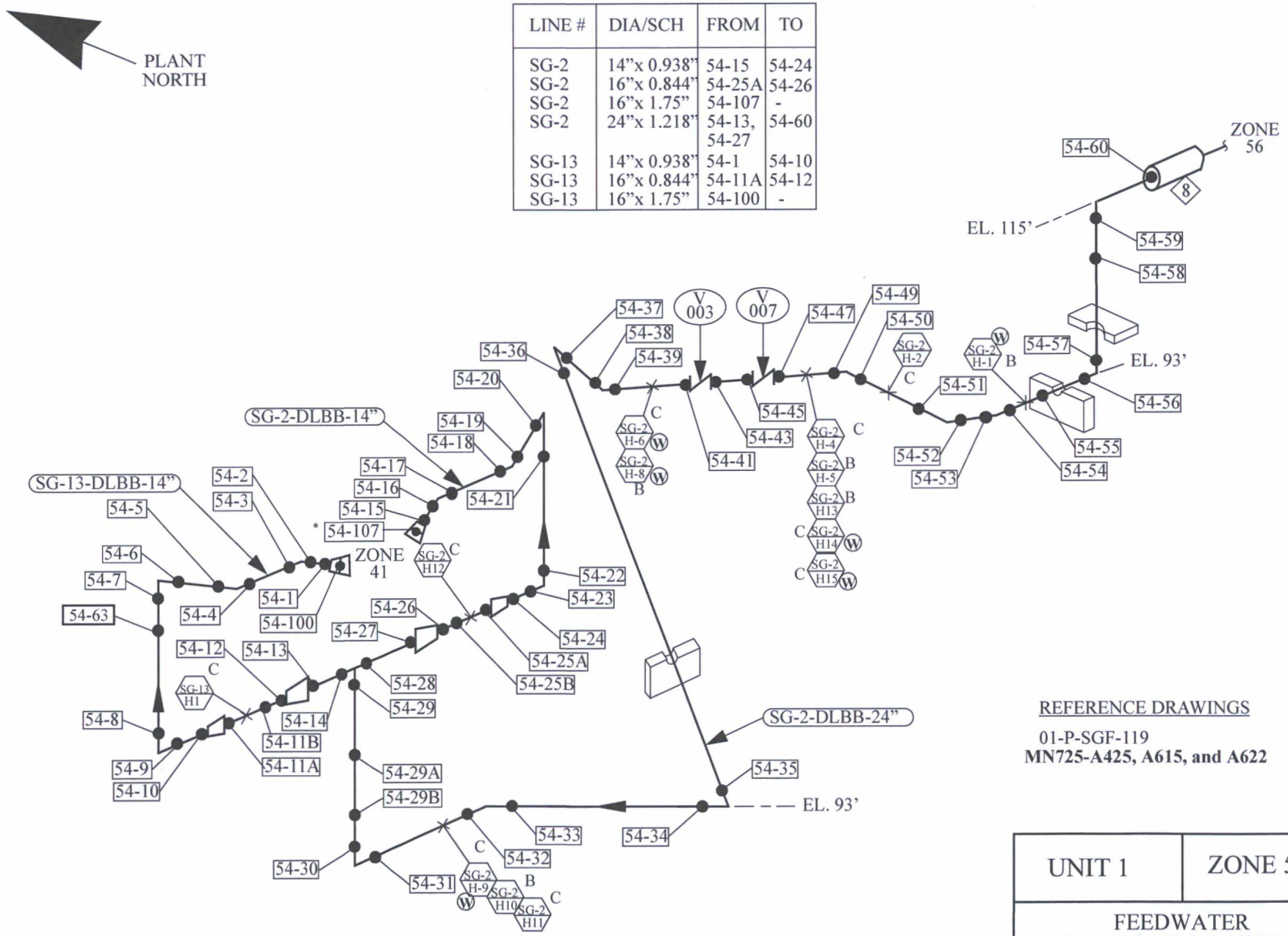



REFERENCE DRAWINGS

01-P-AFF-131

| UNIT 1 | ZONE 53 |
|---|---|
| STEAM TO AUXILIARY FEEDWATER SYSTEM | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-2 | 14"x 0.938" | 54-15 | 54-24 |
| SG-2 | 16"x 0.844" | 54-25A | 54-26 |
| SG-2 | 16"x 1.75" | 54-107 | - |
| SG-2 | 24"x 1.218" | 54-13, 54-27 | 54-60 |
| SG-13 | 14"x 0.938" | 54-1 | 54-10 |
| SG-13 | 16"x 0.844" | 54-11A | 54-12 |
| SG-13 | 16"x 1.75" | 54-100 | - |

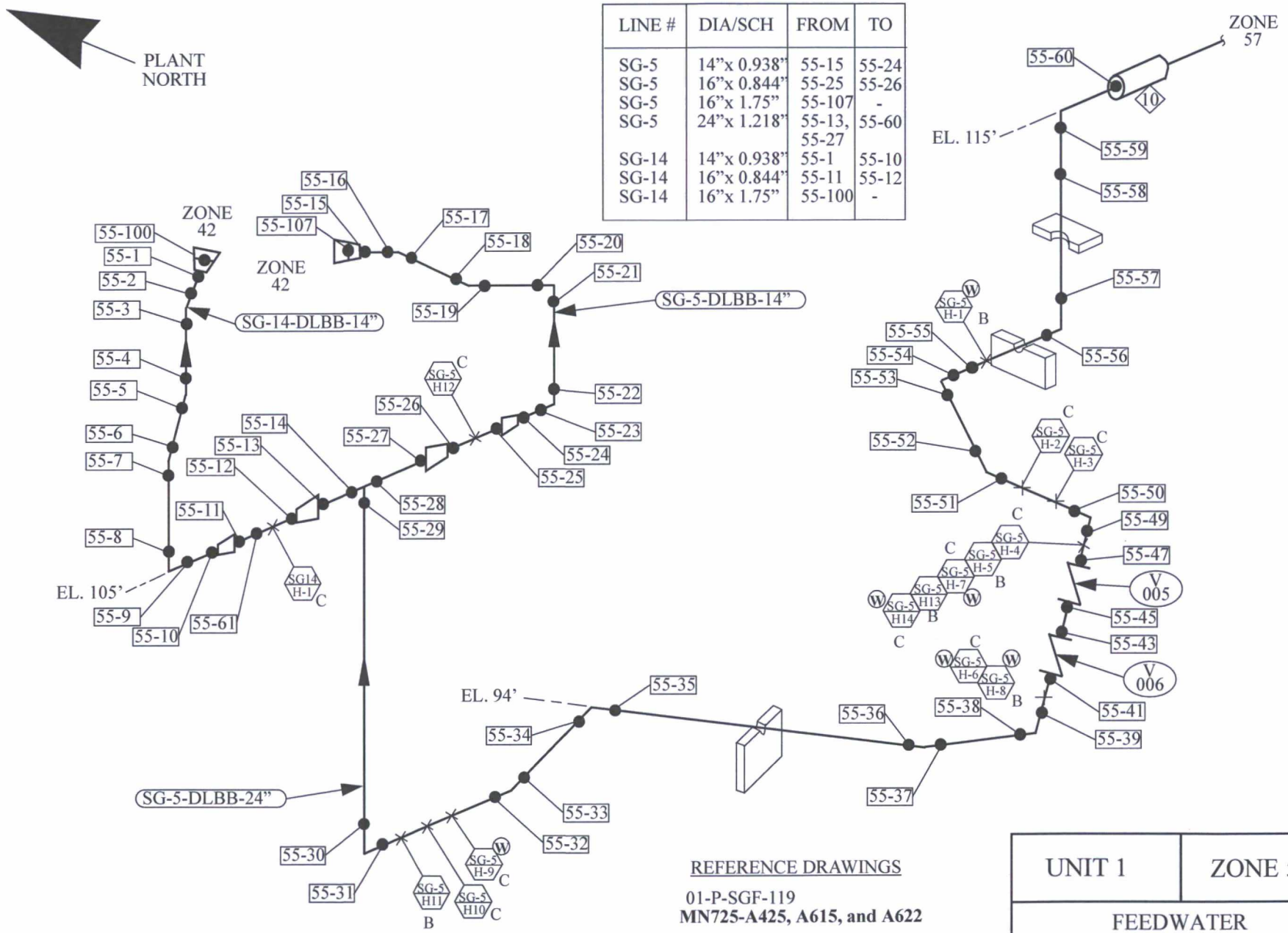



REFERENCE DRAWINGS

01-P-SGF-119

**MN725-A425, A615, and A622**

| UNIT 1 | ZONE 54 |
|---|---|
| FEEDWATER STEAM GENERATOR 1 | |
| | 3INT-ISI-1, Rev. 5 |




| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-5 | 14"x 0.938" | 55-15 | 55-24 |
| SG-5 | 16"x 0.844" | 55-25 | 55-26 |
| SG-5 | 16"x 1.75" | 55-107 | - |
| SG-5 | 24"x 1.218" | 55-13, 55-27 | 55-60 |
| SG-14 | 14"x 0.938" | 55-1 | 55-10 |
| SG-14 | 16"x 0.844" | 55-11 | 55-12 |
| SG-14 | 16"x 1.75" | 55-100 | - |

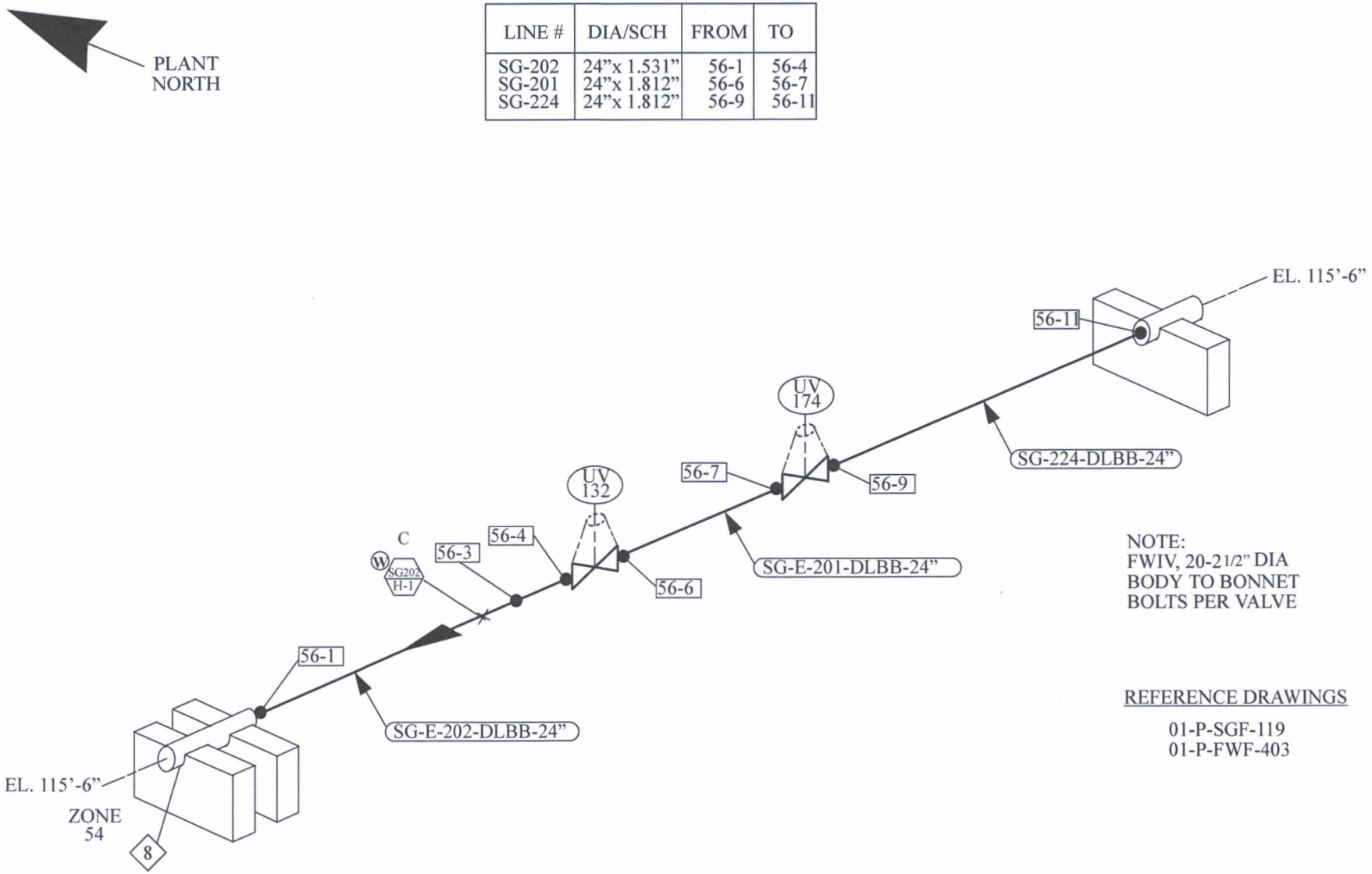
REFERENCE DRAWINGS

01-P-SGF-119

**MN725-A425, A615, and A622**

| UNIT 1 | ZONE 55 |
|---|---|
| FEEDWATER STEAM GENERATOR 2 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-202 | 24"x 1.531" | 56-1 | 56-4 |
| SG-201 | 24"x 1.812" | 56-6 | 56-7 |
| SG-224 | 24"x 1.812" | 56-9 | 56-11 |




NOTE:
FWIV, 20-2 1/2" DIA
BODY TO BONNET
BOLTS PER VALVE

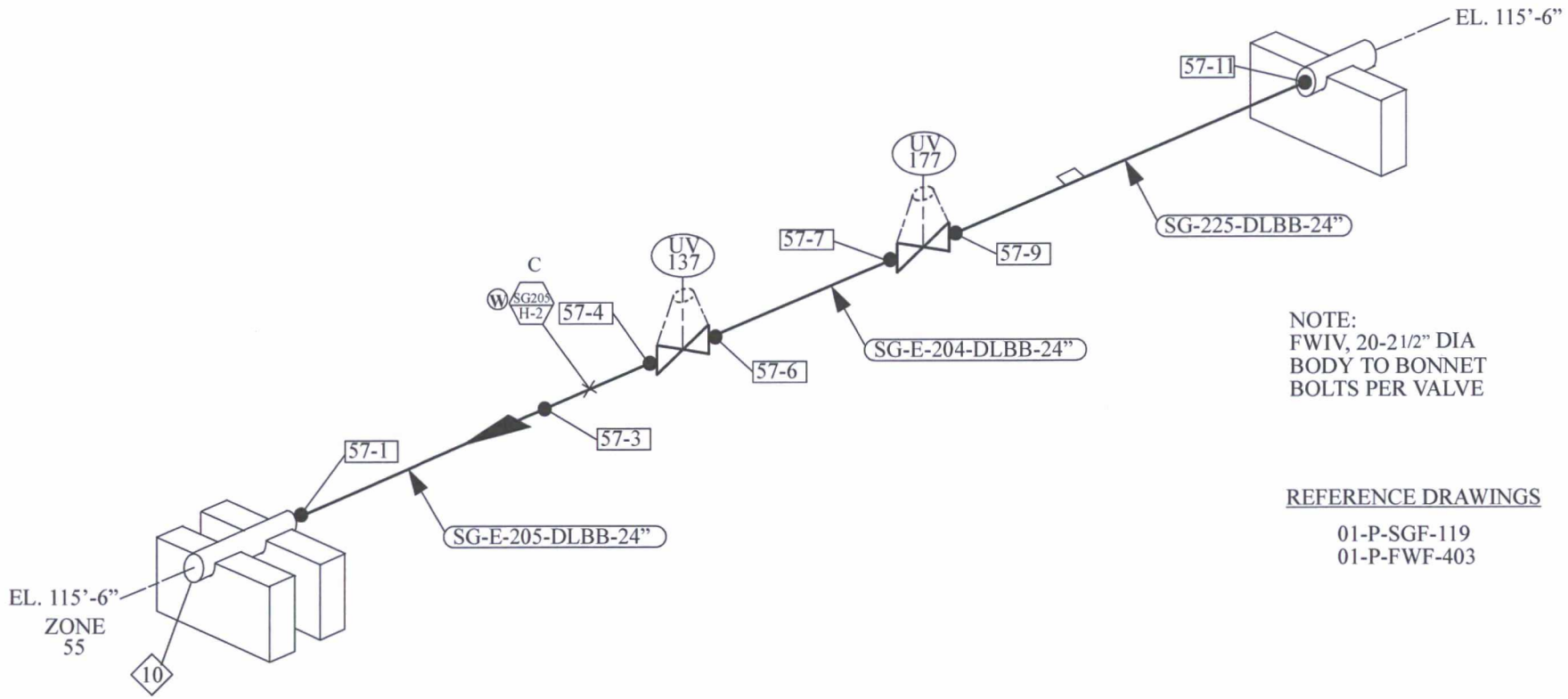
REFERENCE DRAWINGS

01-P-SGF-119
01-P-FWF-403

| UNIT 1 | ZONE 56 |
|---|---|
| FEEDWATER<br>STEAM GENERATOR 1 | |
| | 3INT-ISI-1, Rev. 5 |

PLANT
NORTH

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-205 | 24"x 1.531" | 57-1 | 57-4 |
| SG-204 | 24"x 1.812" | 57-6 | 57-7 |
| SG-225 | 24"x 1.812" | 57-9 | 57-11 |




NOTE:
FWIV, 20-2 1/2" DIA
BODY TO BONNET
BOLTS PER VALVE

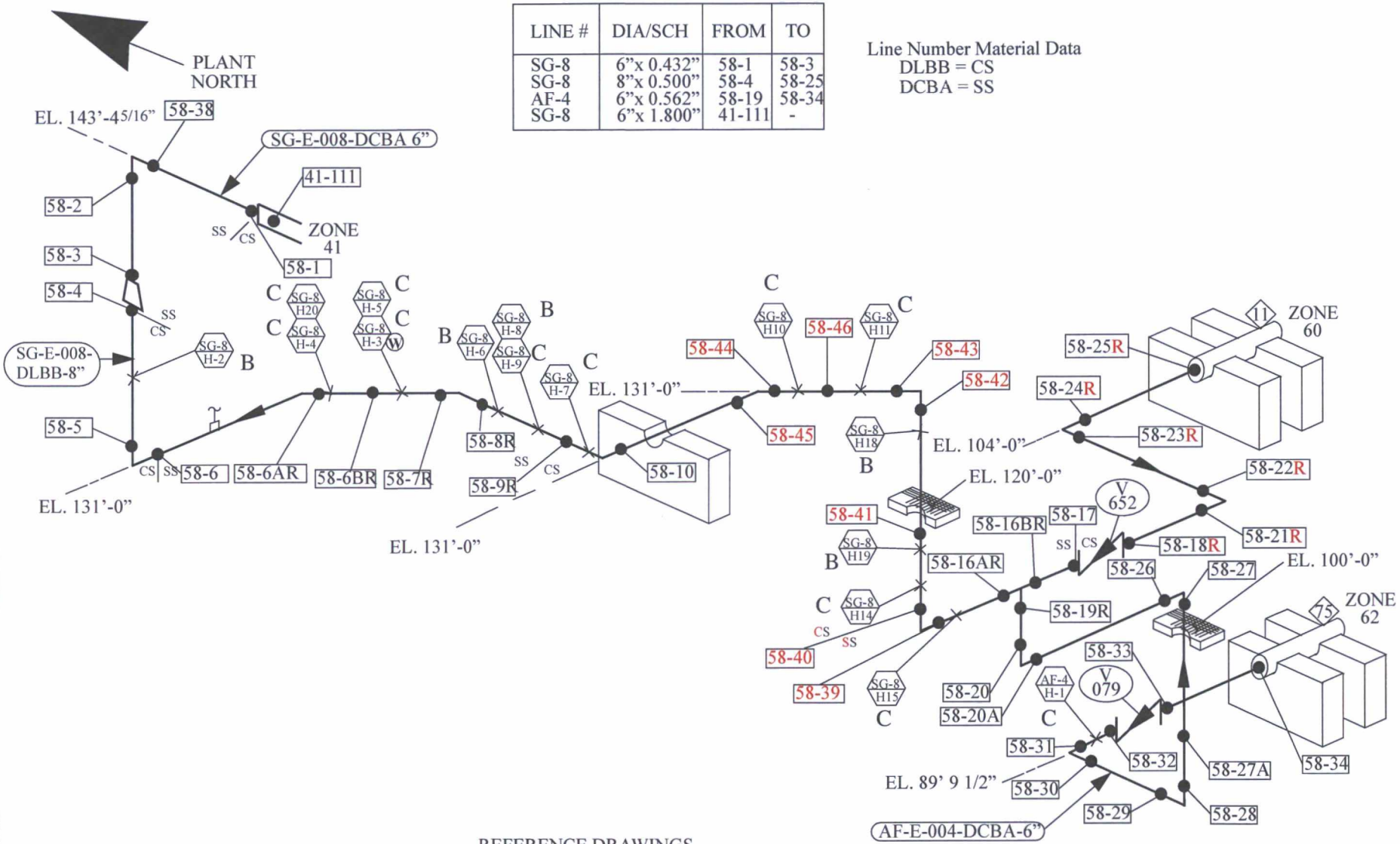
REFERENCE DRAWINGS

01-P-SGF-119
01-P-FWF-403

| UNIT 1 | ZONE 57 |
|---|---|
| FEEDWATER<br>STEAM GENERATOR 2 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-8 | 6"x 0.432" | 58-1 | 58-3 |
| SG-8 | 8"x 0.500" | 58-4 | 58-25 |
| AF-4 | 6"x 0.562" | 58-19 | 58-34 |
| SG-8 | 6"x 1.800" | 41-111 | - |

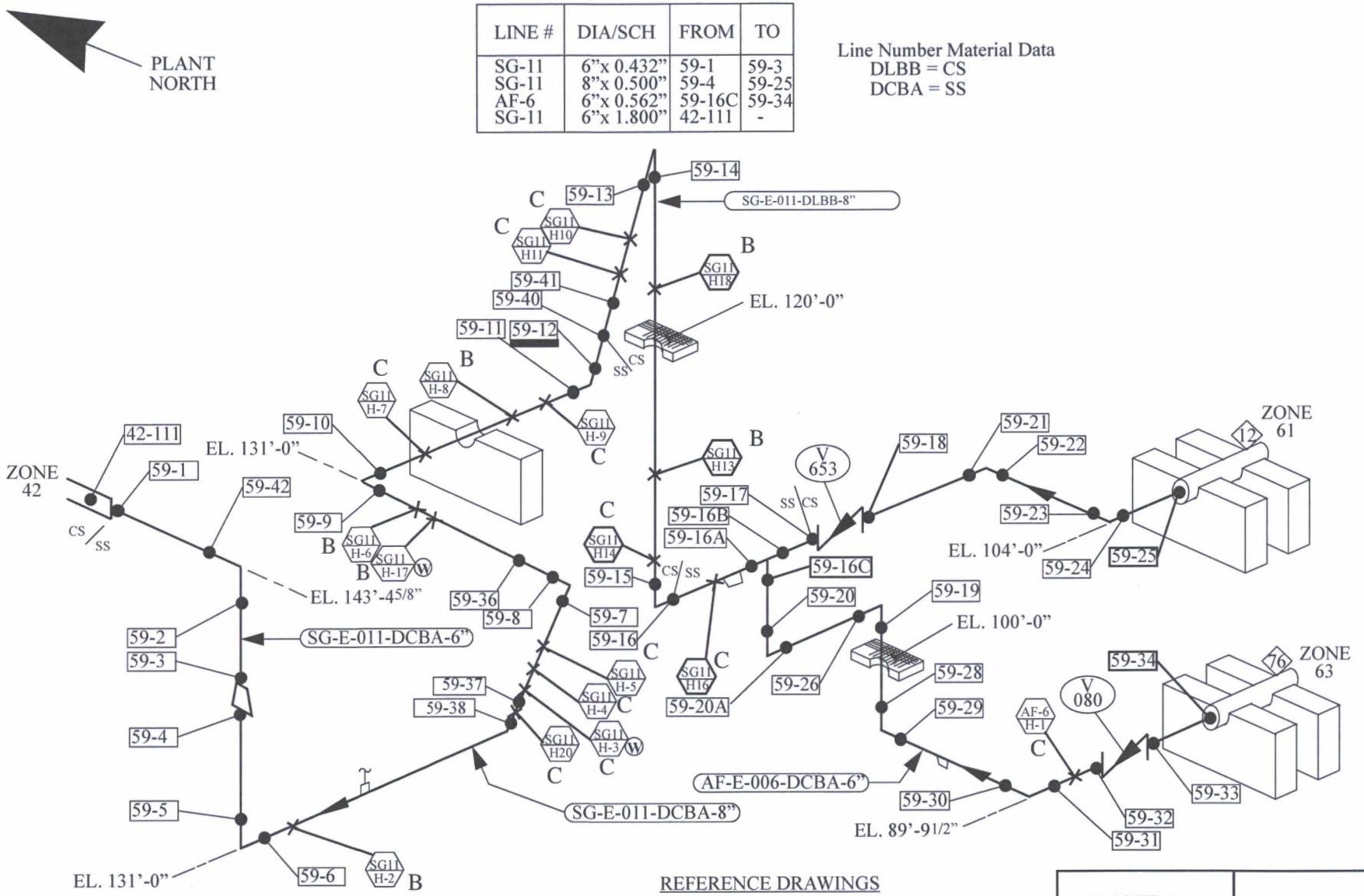
Line Number Material Data
DLBB = CS
DCBA = SS




REFERENCE DRAWINGS

01-P-SGF-120
MN725-A420 and A622
R17 WO 3124945; EDC for SS; welds 6AR thru 9R
R17 WO 3124943; EDC for SS; welds 15R thru 16BR and 19R
R18 WO 3309334; welds 18R, 21R thru 25R
R19 WO 4629309; welds 39 thru 45

| UNIT 1 | ZONE 58 |
|---|---|
| AUXILIARY & DOWNCOMER FEEDWATER SG # 1 | |
| | 3INT-ISI-1, Rev. 5 |

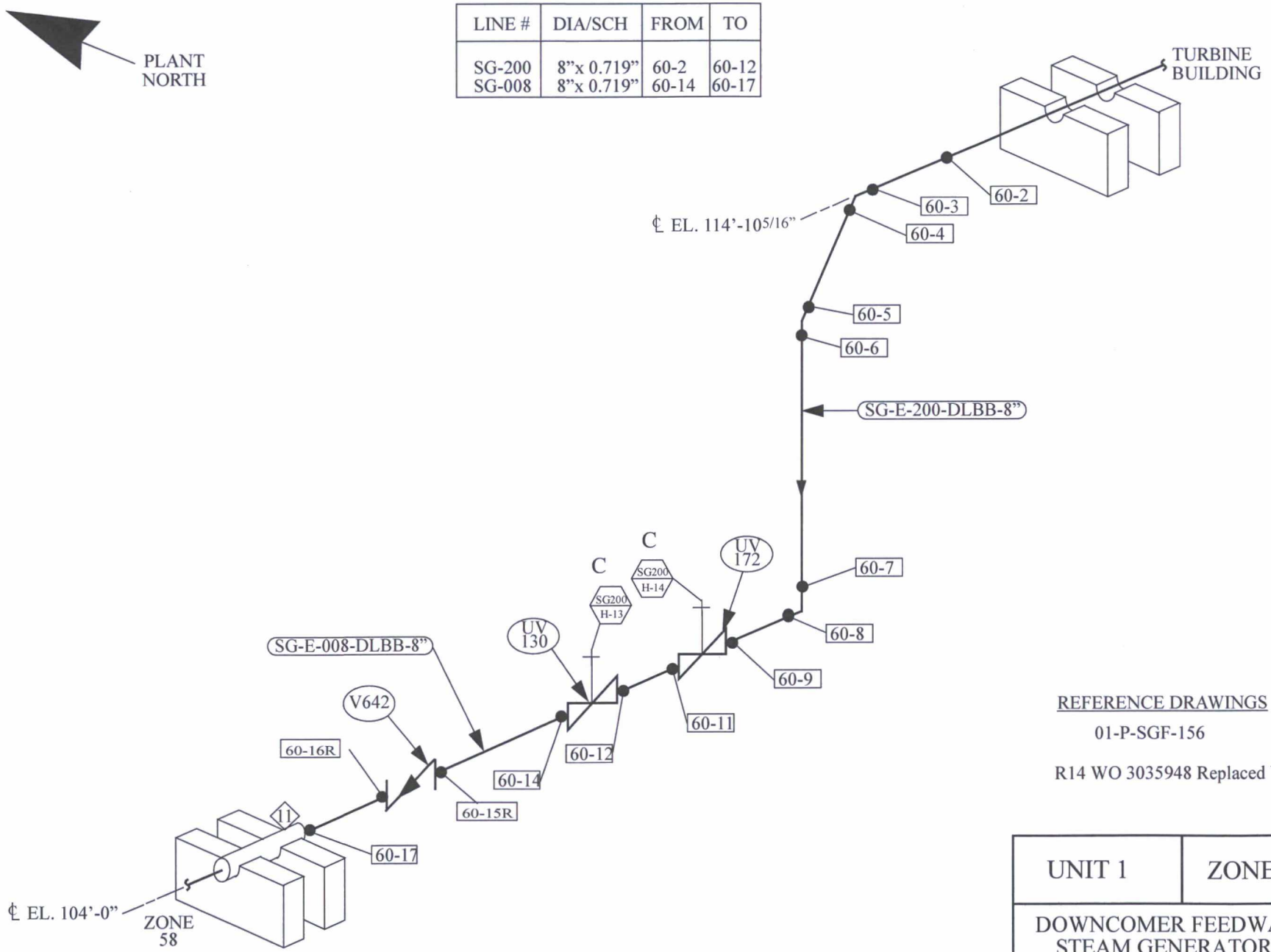



REFERENCE DRAWINGS

01-P-SGF-120
EDC-2001-561, 562, 563
MN725-A420 and A622

| UNIT 1 | ZONE 59 |
|---|---|
| AUXILIARY & DOWNCOMER FEEDWATER SG # 2 | |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-200 | 8"x 0.719" | 60-2 | 60-12 |
| SG-008 | 8"x 0.719" | 60-14 | 60-17 |



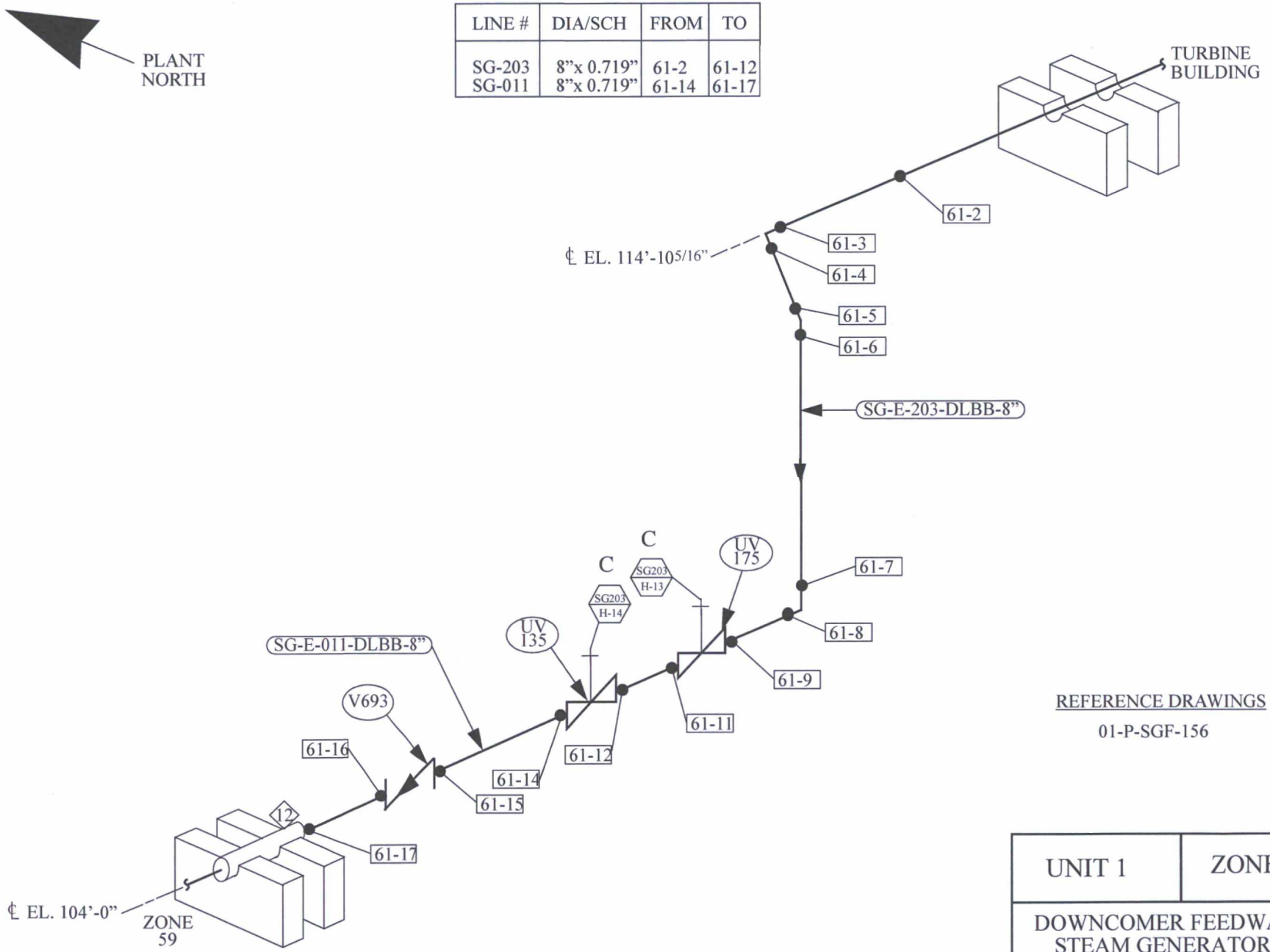

REFERENCE DRAWINGS

01-P-SGF-156

R14 WO 3035948 Replaced V642

| UNIT 1 | ZONE 60 |
|---|---|
| DOWNCOMER FEEDWATER STEAM GENERATOR # 1 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-203 | 8"x 0.719" | 61-2 | 61-12 |
| SG-011 | 8"x 0.719" | 61-14 | 61-17 |

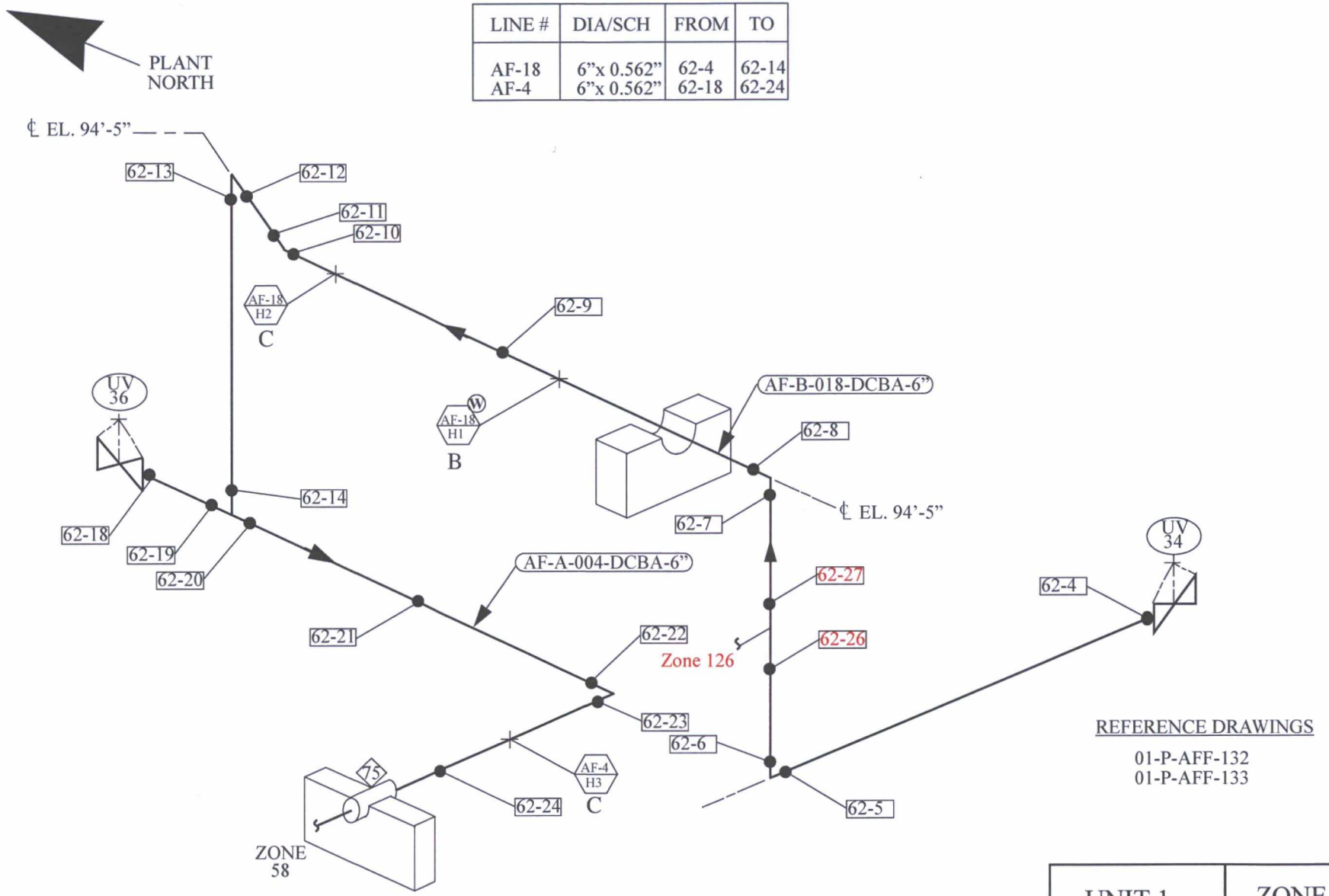



REFERENCE DRAWINGS

01-P-SGF-156

| UNIT 1 | ZONE 61 |
|---|---|
| DOWNCOMER FEEDWATER STEAM GENERATOR # 2 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| AF-18 | 6"x 0.562" | 62-4 | 62-14 |
| AF-4 | 6"x 0.562" | 62-18 | 62-24 |

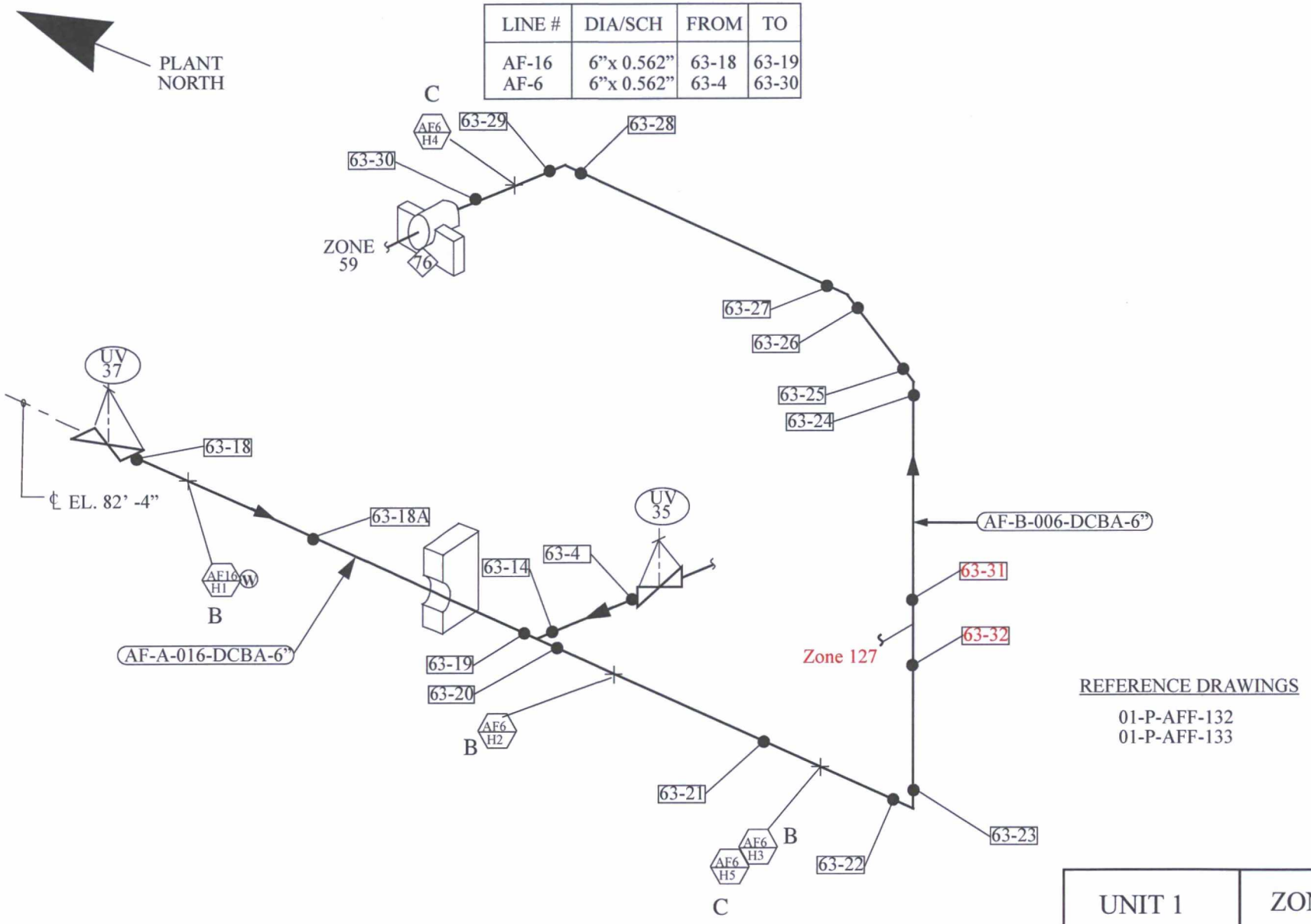


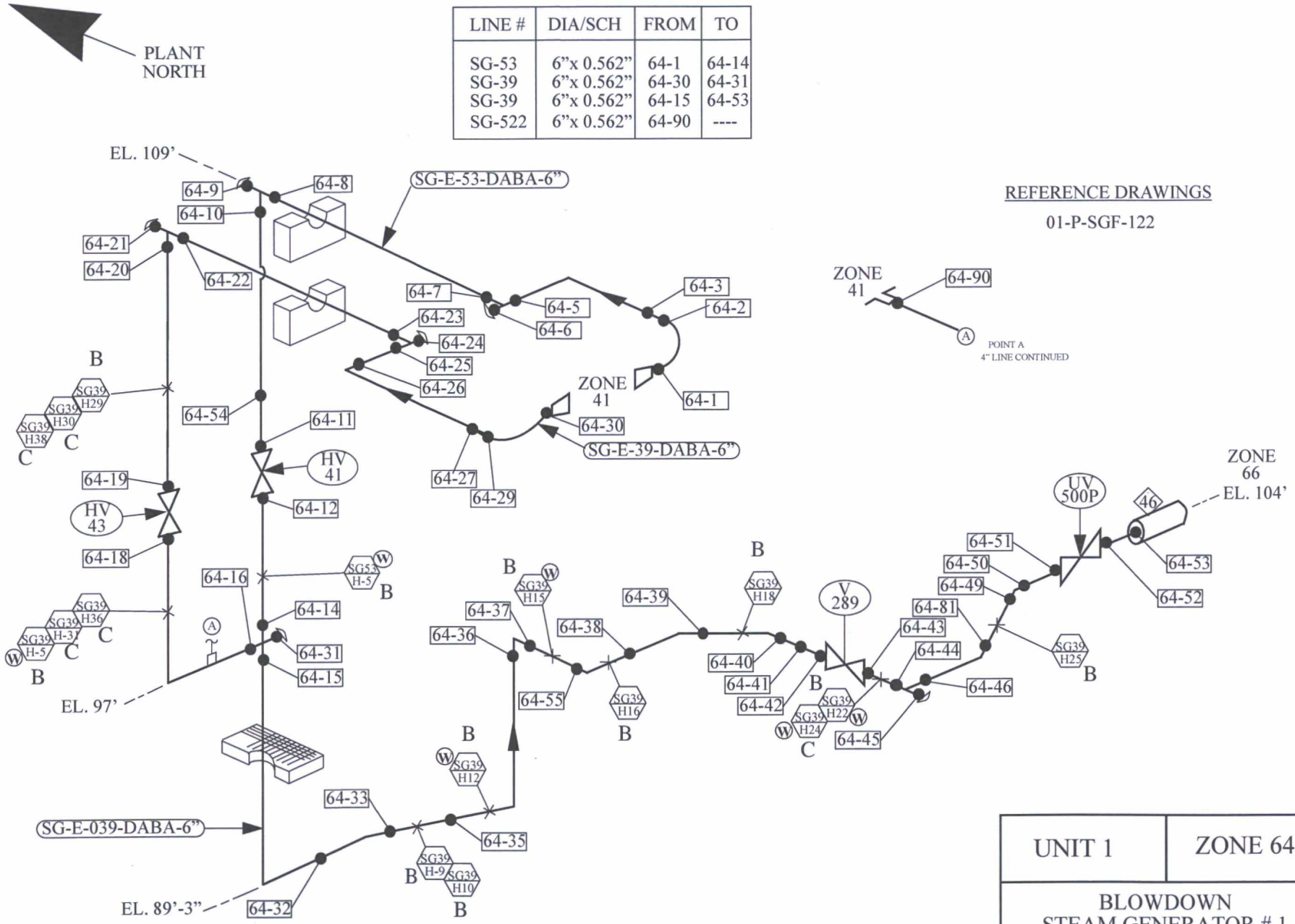

REFERENCE DRAWINGS

01-P-AFF-132
01-P-AFF-133

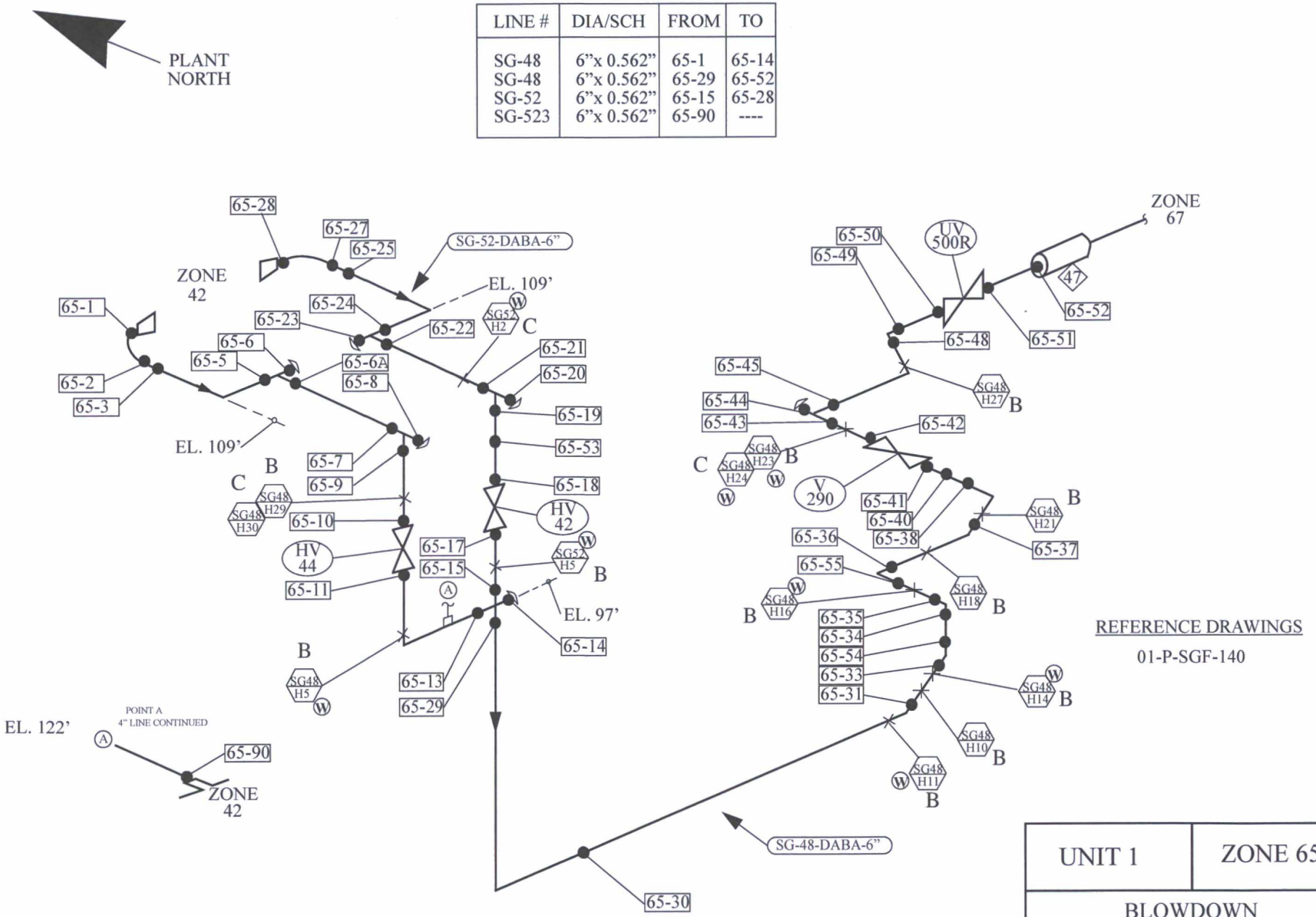
R18 Fukushima; EDC 2013-00545; WO 4418186

| UNIT 1 | ZONE 62 |
|---|---|
| AUXILIARY FEEDWATER STEAM GENERATOR # 1 | |
| | 3INT-ISI-1, Rev. 5 |

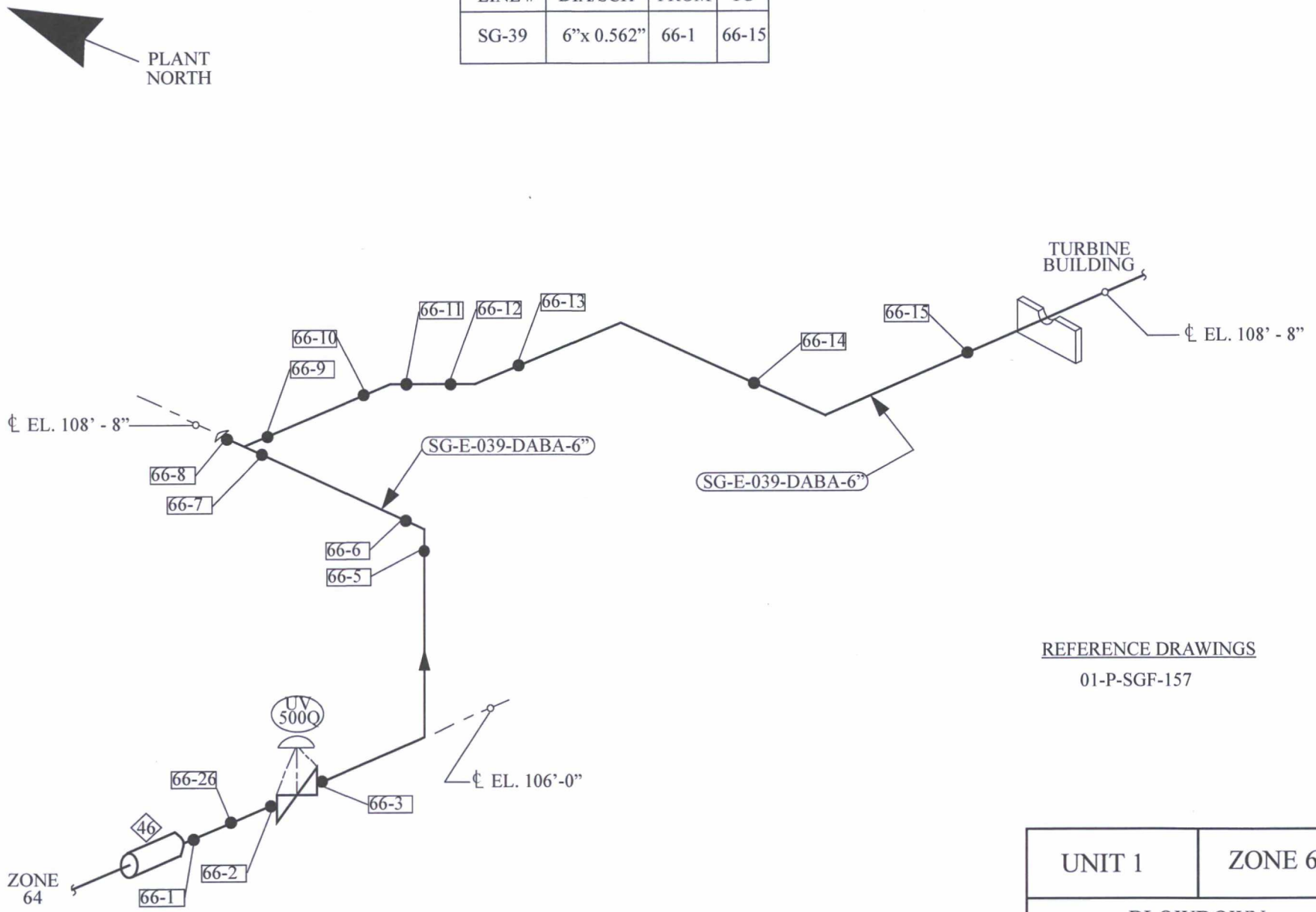

PLANT NORTH
LINE # | DIA/SCH | FROM | TO
AF-16 | 6"x 0.562" | 63-18 | 63-19
AF-6 | 6"x 0.562" | 63-4 | 63-30
C
AF6 H4
63-29
63-28
63-30
ZONE 59
76
63-27
63-26
63-25
63-24
UV 37
63-18
℄ EL. 82' -4"
63-18A
UV 35
AF-B-006-DCBA-6"
AF16 H1
W
B
63-14
63-4
63-31
63-32
Zone 127
AF-A-016-DCBA-6"
63-19
63-20
AF6 H2
B
63-21
AF6 H3
AF6 H5
B
63-22
63-23
C
REFERENCE DRAWINGS
01-P-AFF-132
01-P-AFF-133
R18 Fukushima; EDC 2013-00544; WO 4418212
UNIT 1
ZONE 63
AUXILIARY FEEDWATER STEAM GENERATOR # 2


PLANT NORTH
LINE # | DIA/SCH | FROM | TO
SG-53 | 6"x 0.562" | 64-1 | 64-14
SG-39 | 6"x 0.562" | 64-30 | 64-31
SG-39 | 6"x 0.562" | 64-15 | 64-53
SG-522 | 6"x 0.562" | 64-90 | ----
REFERENCE DRAWINGS
01-P-SGF-122
EL. 109'
EL. 97'
EL. 89'-3"
SG-E-53-DABA-6"
SG-E-39-DABA-6"
SG-E-039-DABA-6"
ZONE 41
POINT A 4" LINE CONTINUED
ZONE 66 EL. 104'
HV 41
HV 43
UV 500P
V 289
64-1
64-2
64-3
64-5
64-6
64-7
64-8
64-9
64-10
64-11
64-12
64-14
64-15
64-16
64-18
64-19
64-20
64-21
64-22
64-23
64-24
64-25
64-26
64-27
64-29
64-30
64-31
64-32
64-33
64-35
64-36
64-37
64-38
64-39
64-40
64-41
64-42
64-43
64-44
64-45
64-46
64-49
64-50
64-51
64-52
64-53
64-54
64-55
64-81
64-90
UNIT 1
ZONE 64
BLOWDOWN STEAM GENERATOR # 1

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-48 | 6"x 0.562" | 65-1 | 65-14 |
| SG-48 | 6"x 0.562" | 65-29 | 65-52 |
| SG-52 | 6"x 0.562" | 65-15 | 65-28 |
| SG-523 | 6"x 0.562" | 65-90 | ---- |



| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-39 | 6"x 0.562" | 66-1 | 66-15 |

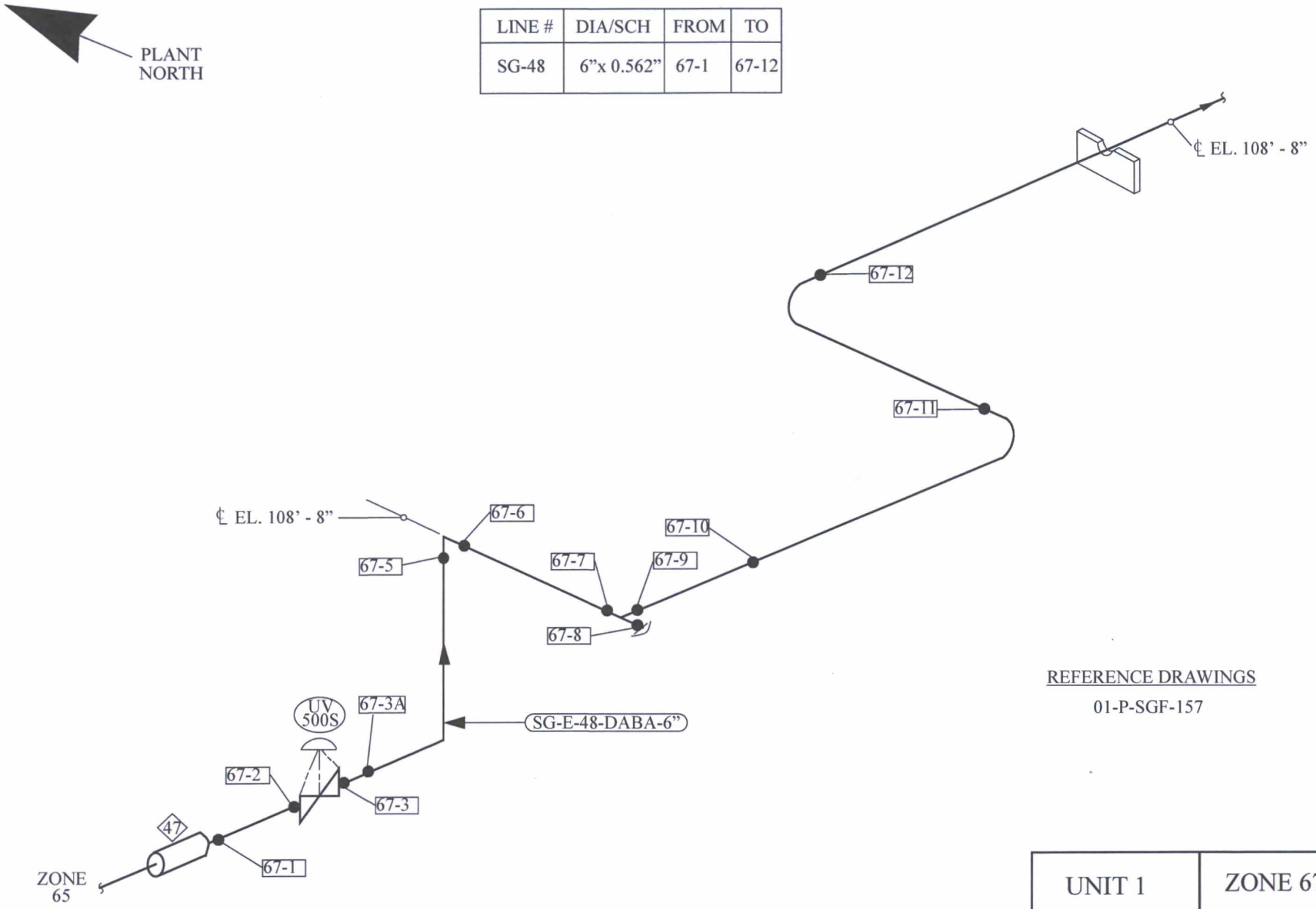



REFERENCE DRAWINGS

01-P-SGF-157

| UNIT 1 | ZONE 66 |
|---|---|
| BLOWDOWN STEAM GENERATOR # 1 | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA/SCH | FROM | TO |
|---|---|---|---|
| SG-48 | 6"x 0.562" | 67-1 | 67-12 |



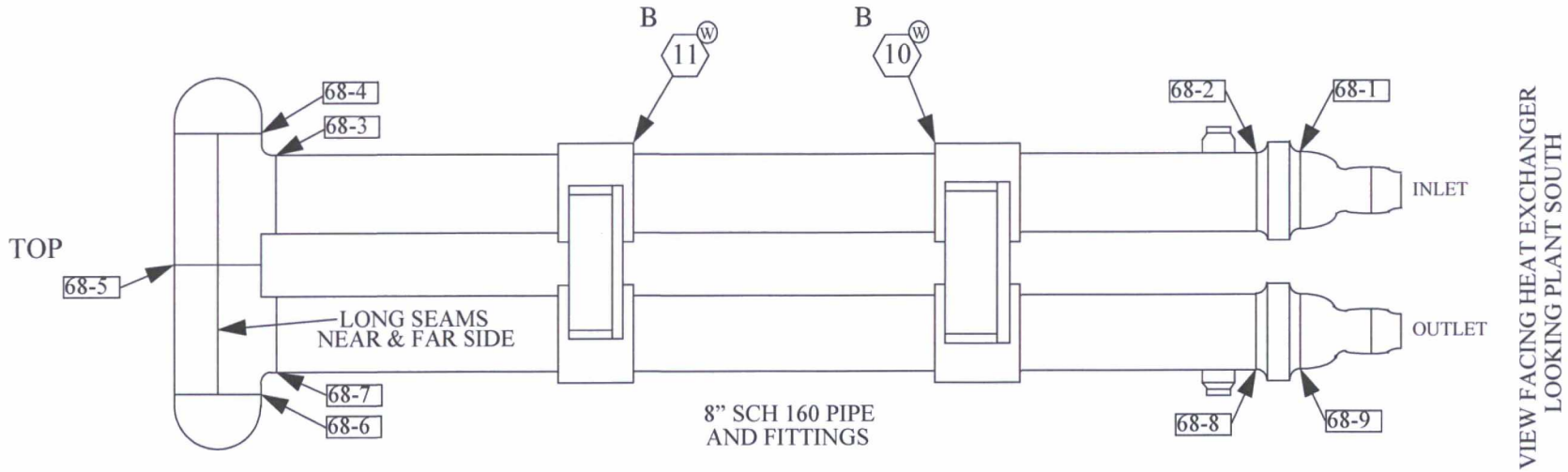

REFERENCE DRAWINGS

01-P-SGF-157

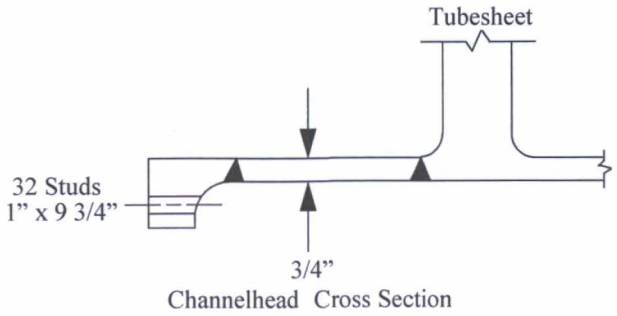
| UNIT 1 | ZONE 67 |
|---|---|
| BLOWDOWN STEAM GENERATOR # 2 | |
| | 3INT-ISI-1, Rev. 5 |

NOTES:
Tag No. 1MCHEE01
Serial No. 79119 (AMETEK)
N.B. No. 437

Reference Drawings:
N001-7.03-1
N001-7.03-48 thru 50



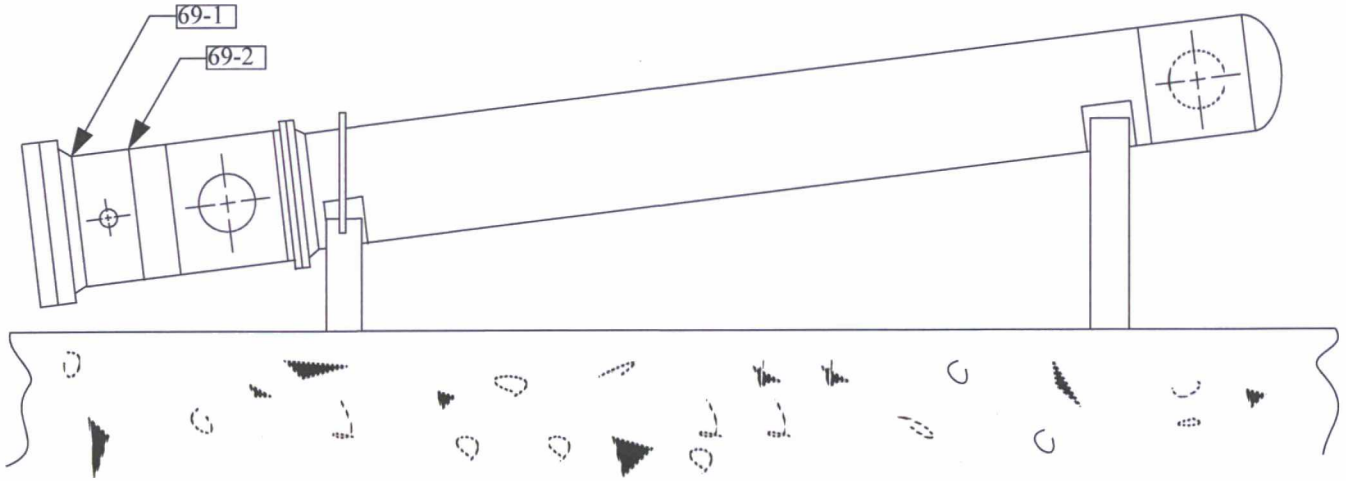

| UNIT 1 | ZONE 68 |
|---|---|
| REGENERATIVE HEAT EX-CHANGER | |
| | 3INT-ISI-1, Rev. 5 |



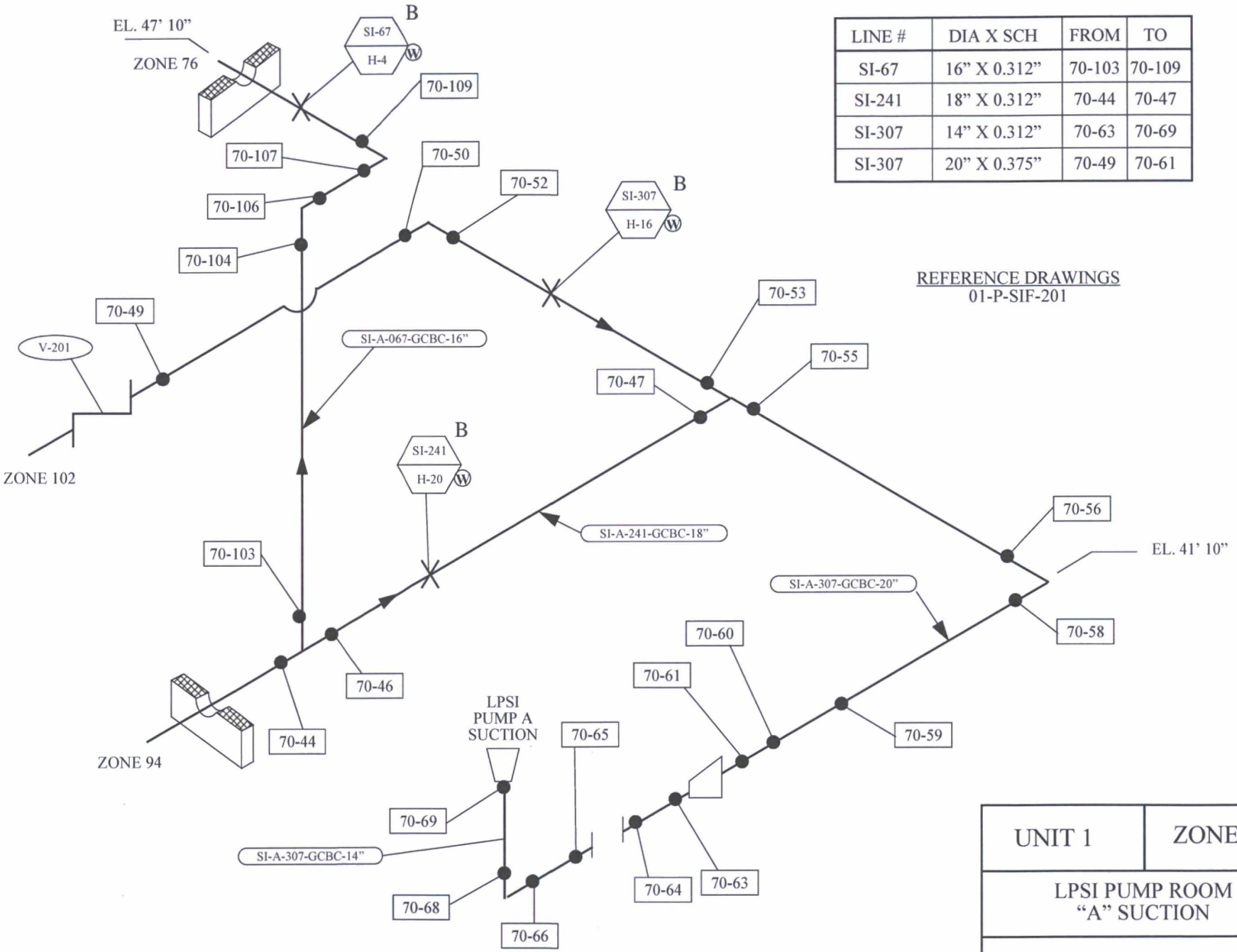
Channelhead Cross Section

NOTES:
Tag No. 1MCHNE02
Serial No. N2370 (Richmond Engr)
N.B. No. 76129

Reference Drawings:
N001-7.03-26
N001-7.03-27
N001-7.03-28
N001-7.03-29




| UNIT 1 | ZONE 69 |
|---|---|
| LETDOWN HEAT EXCHANGER | |
| | 3INT-ISI-1, Rev. 5 |

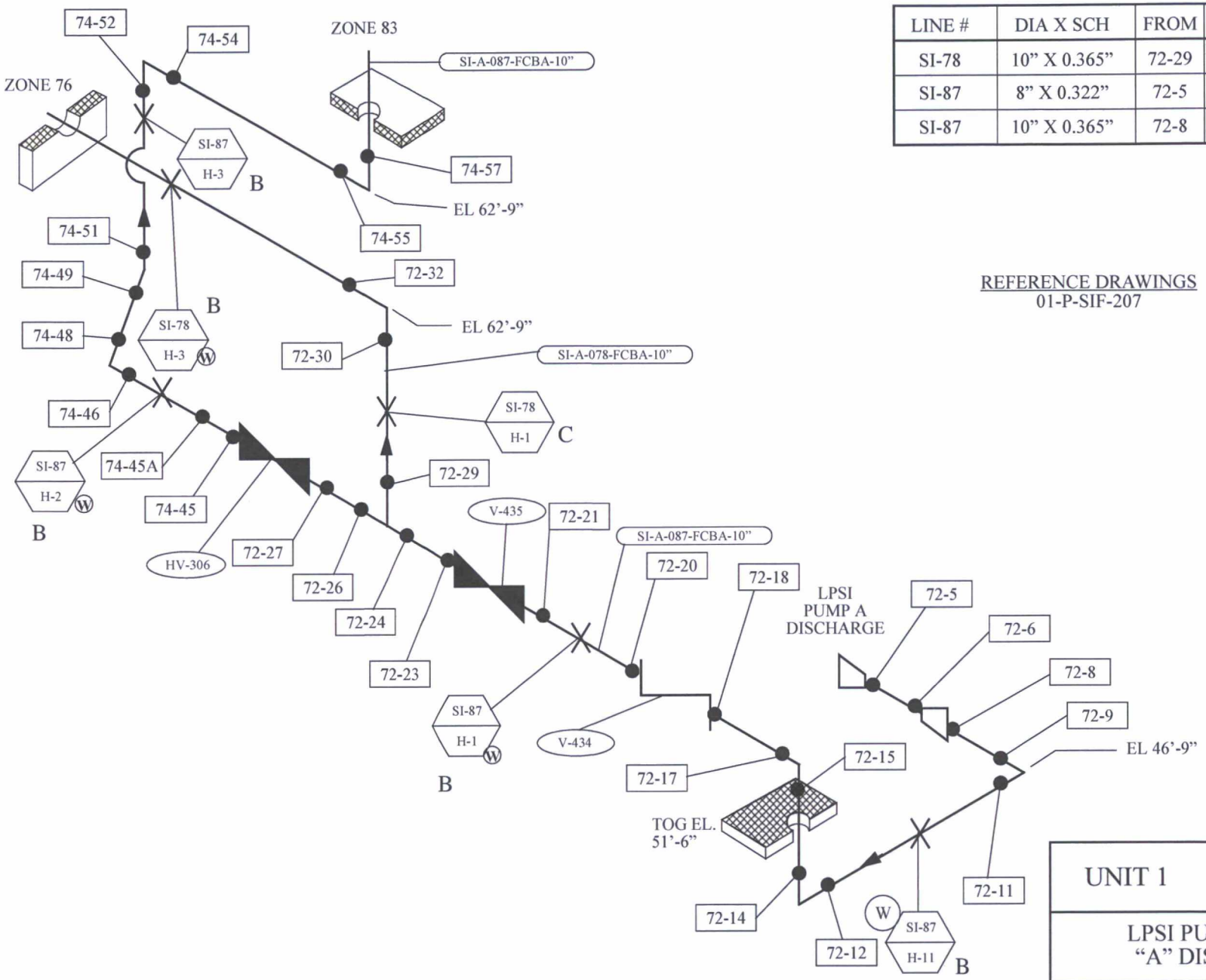



| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-67 | 16" X 0.312" | 70-103 | 70-109 |
| SI-241 | 18" X 0.312" | 70-44 | 70-47 |
| SI-307 | 14" X 0.312" | 70-63 | 70-69 |
| SI-307 | 20" X 0.375" | 70-49 | 70-61 |

REFERENCE DRAWINGS
01-P-SIF-201

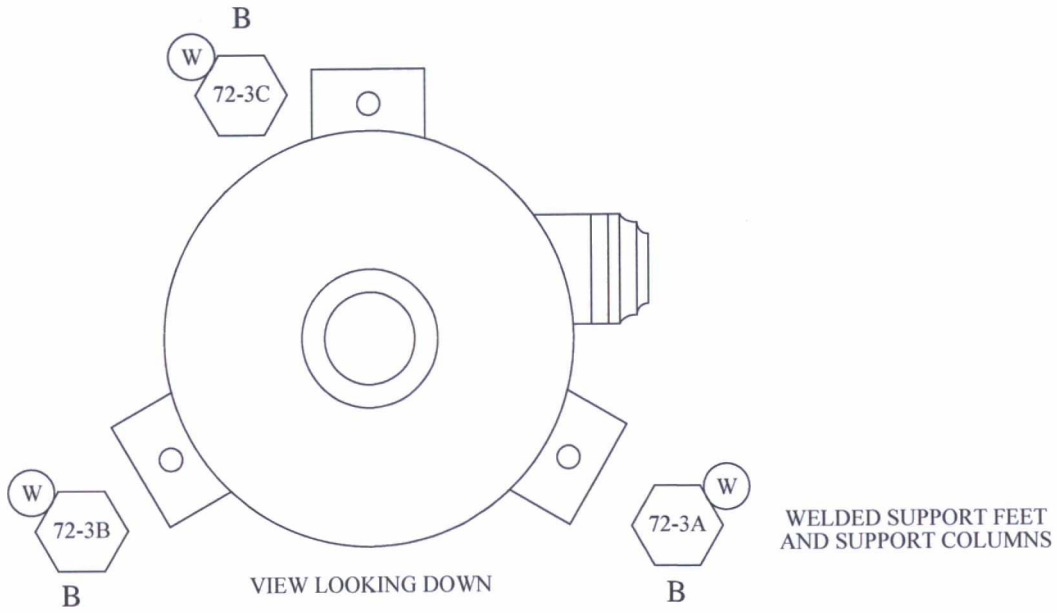
| UNIT 1 | ZONE 70 |
|---|---|
| LPSI PUMP ROOM "A" SUCTION | |
| 3INT-ISI-1, Rev. 5 | |

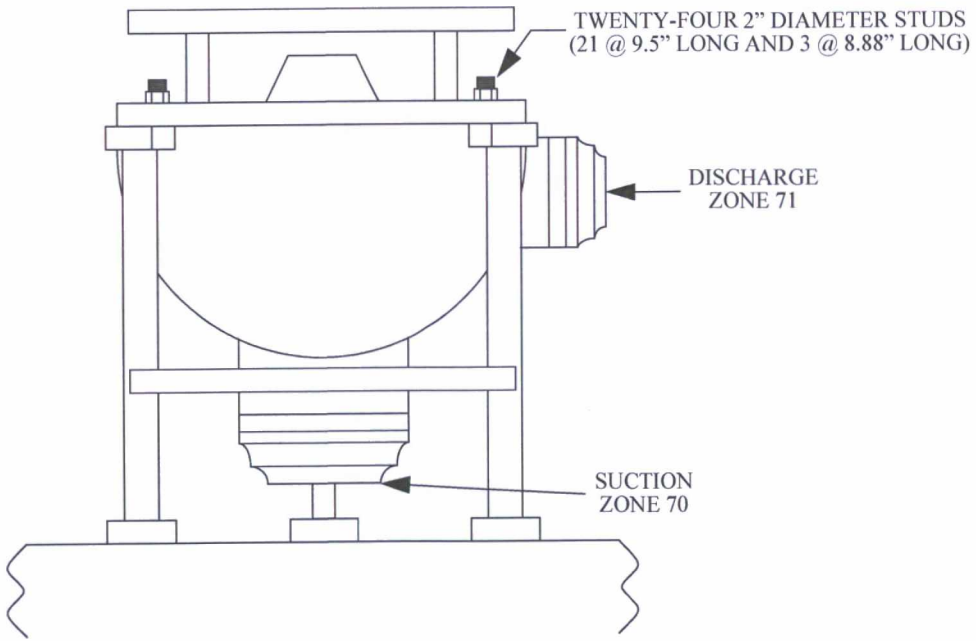
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-78 | 10" X 0.365" | 72-29 | 72-32 |
| SI-87 | 8" X 0.322" | 72-5 | 72-6 |
| SI-87 | 10" X 0.365" | 72-8 | 72-57 |




REFERENCE DRAWINGS
01-P-SIF-207

| UNIT 1 | ZONE 71 |
|---|---|
| LPSI PUMP ROOM "A" DISCHARGE | |
| | 3INT-ISI-1, Rev. 5 |




NOTES:

1) TAG NUMBER: 1MSIAP01

2) SERIAL NUMBER: 0876-36 INGERSOL RAND

3) NATIONAL BOARD NUMBER: 523

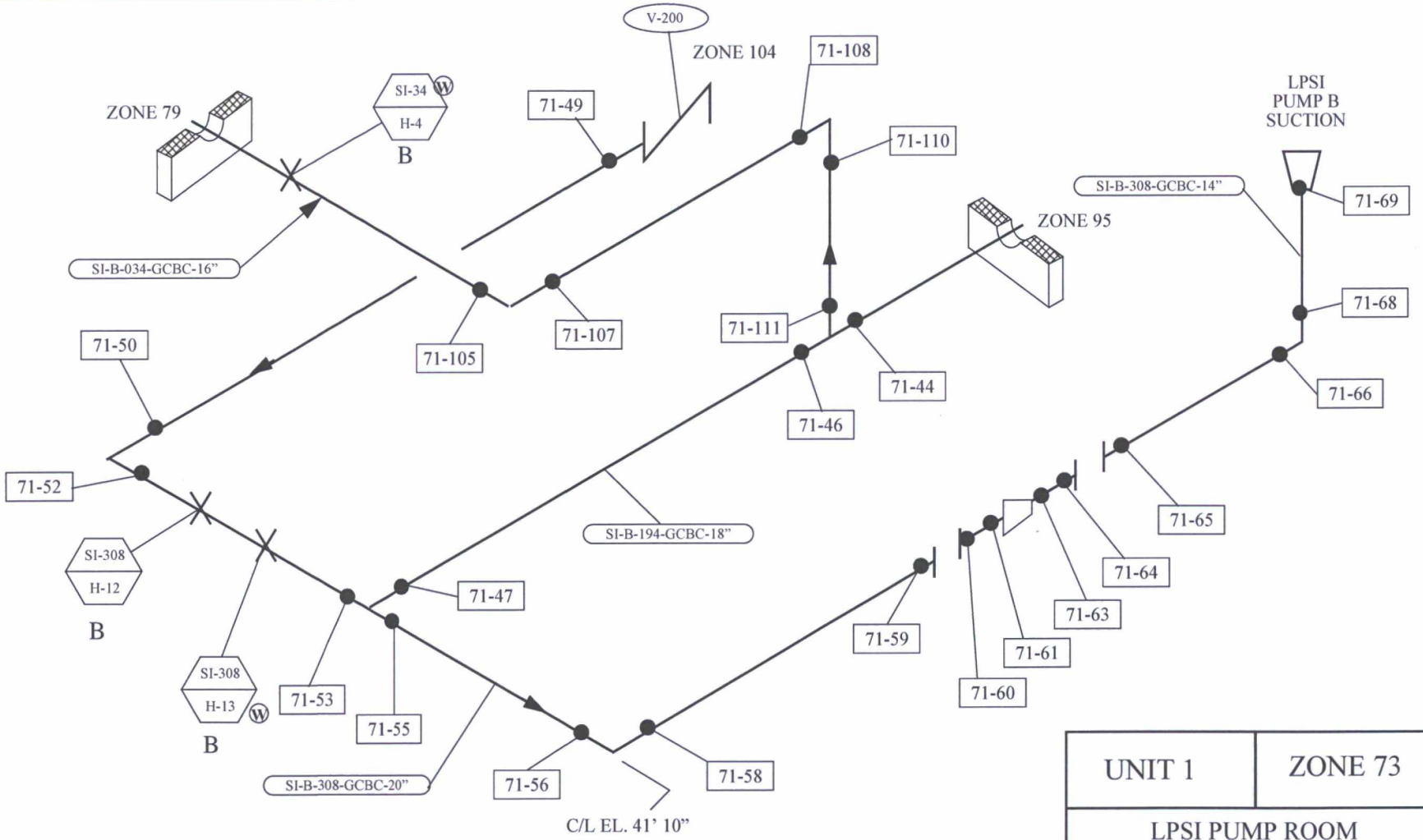
REFERENCE DRAWINGS

N001-11.01-36
N001-11.01-50

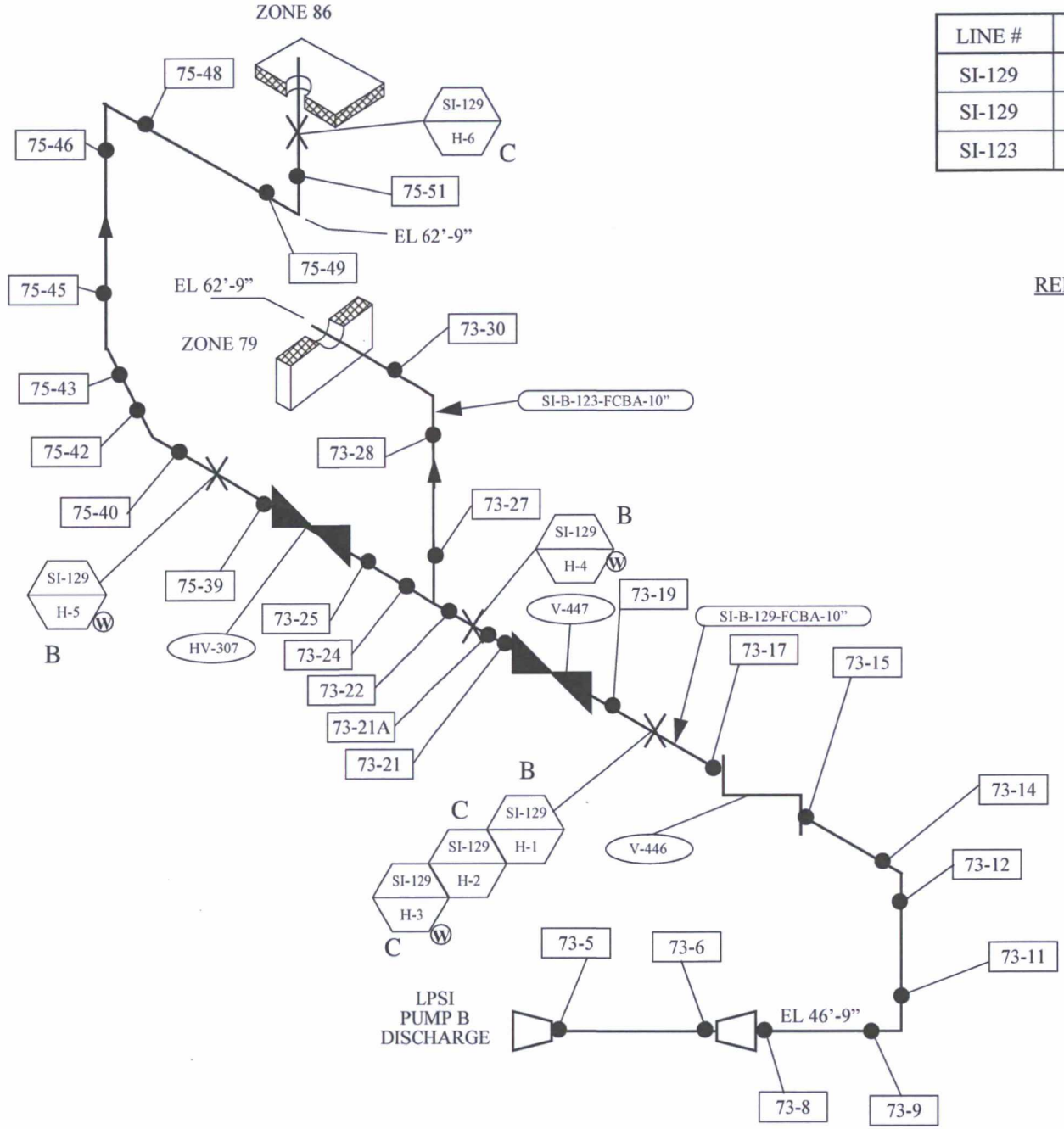
| UNIT 1 | ZONE 72 |
|---|---|
| LPSI PUMP "A" | |
| 3INT-ISI-1, Rev. 5 | |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-308 | 14" X 0.312" | 71-63 | 71-69 |
| SI-308 | 20" X 0.375" | 71-49 | 71-61 |
| SI-194 | 18" X 0.312" | 71-44 | 71-47 |
| SI-34 | 16" X 0.312" | 71-105 | 71-111 |

REFERENCE DRAWINGS
01-P-SIF-202




| UNIT 1 | ZONE 73 |
|---|---|
| LPSI PUMP ROOM "B" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

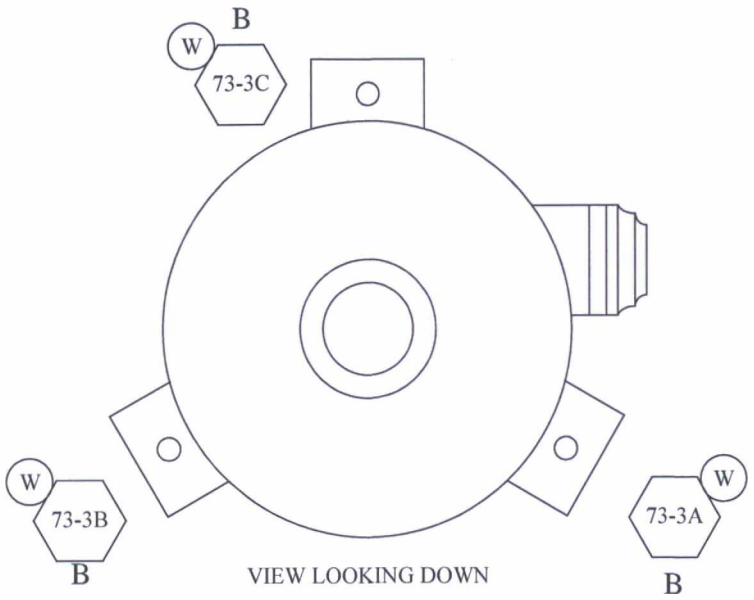


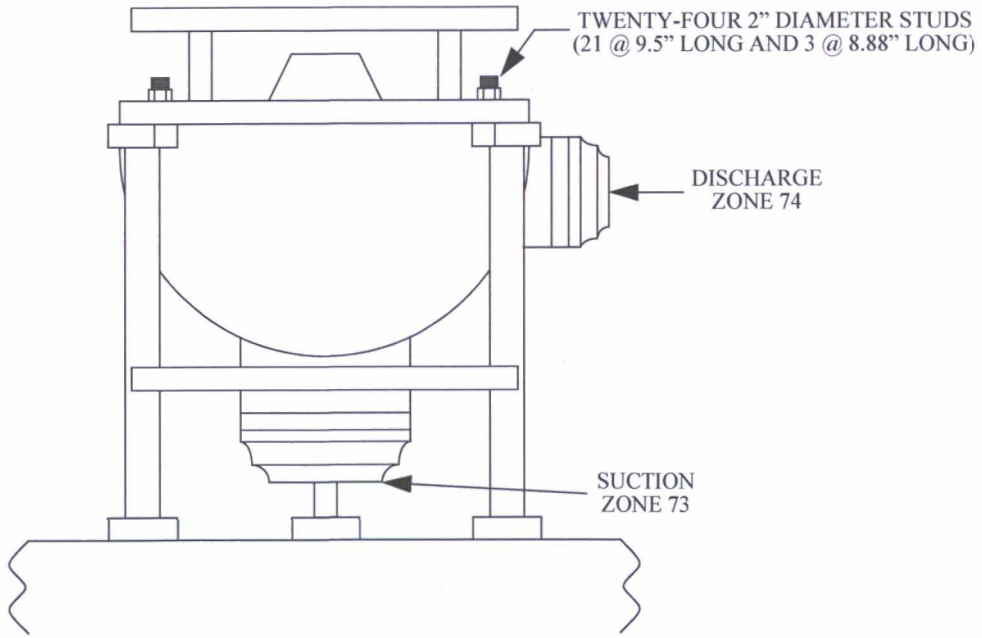

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-129 | 8" X 0.322" | 73-5 | 73-6 |
| SI-129 | 10" X 0.365" | 73-8 | 75-51 |
| SI-123 | 10" X 0.365" | 73-27 | 73-30 |

REFERENCE DRAWINGS

01-P-SIF-208

| UNIT 1 | ZONE 74 |
|---|---|
| LPSI PUMP ROOM "B" DISCHARGE | |
| | 3INT-ISI-1, Rev. 5 |




NOTES:

1) TAG NUMBER: 1MSIBP01

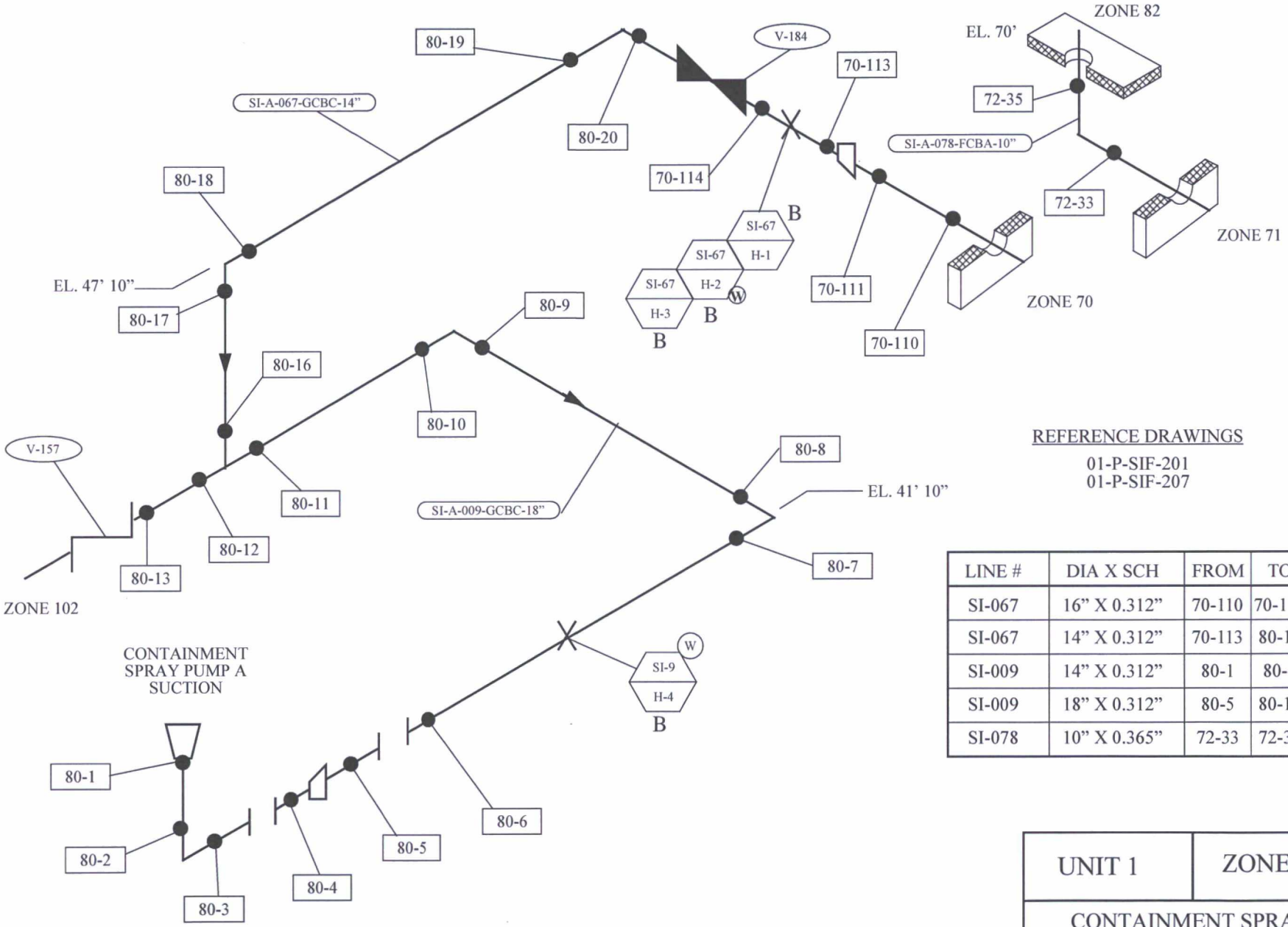
2) SERIAL NUMBER: 0876-37 INGERSOL RAND

3) NATIONAL BOARD NUMBER: 524

REFERENCE DRAWINGS

N001-11.01-36
N001-11.01-50

| UNIT 1 | ZONE 75 |
|---|---|
| LPSI PUMP "B" | |
| 3INT-ISI-1, Rev. 5 | |

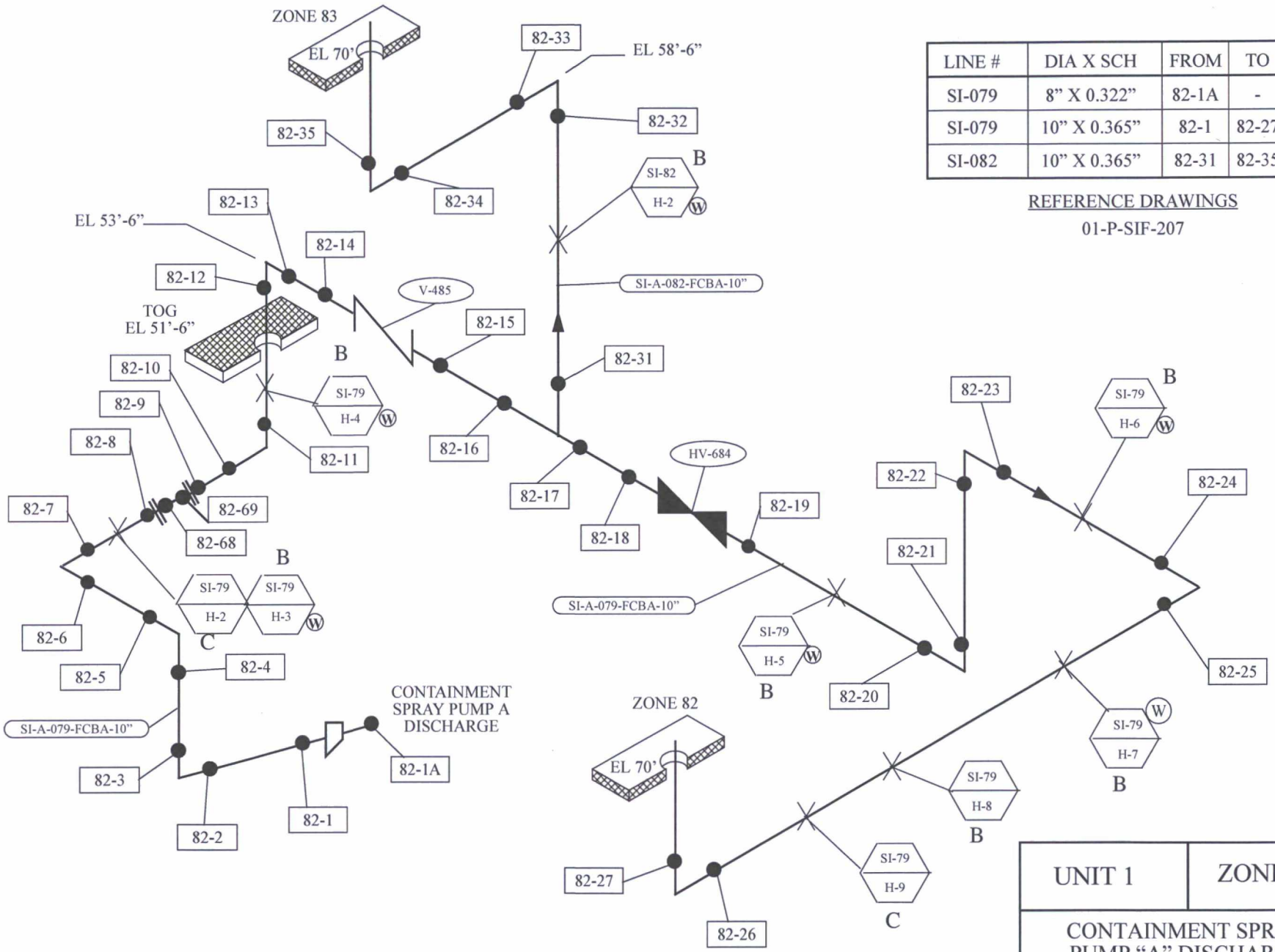



REFERENCE DRAWINGS

01-P-SIF-201
01-P-SIF-207

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-067 | 16" X 0.312" | 70-110 | 70-111 |
| SI-067 | 14" X 0.312" | 70-113 | 80-16 |
| SI-009 | 14" X 0.312" | 80-1 | 80-4 |
| SI-009 | 18" X 0.312" | 80-5 | 80-13 |
| SI-078 | 10" X 0.365" | 72-33 | 72-35 |

| UNIT 1 | ZONE 76 |
|---|---|
| CONTAINMENT SPRAY PUMP ROOM "A" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

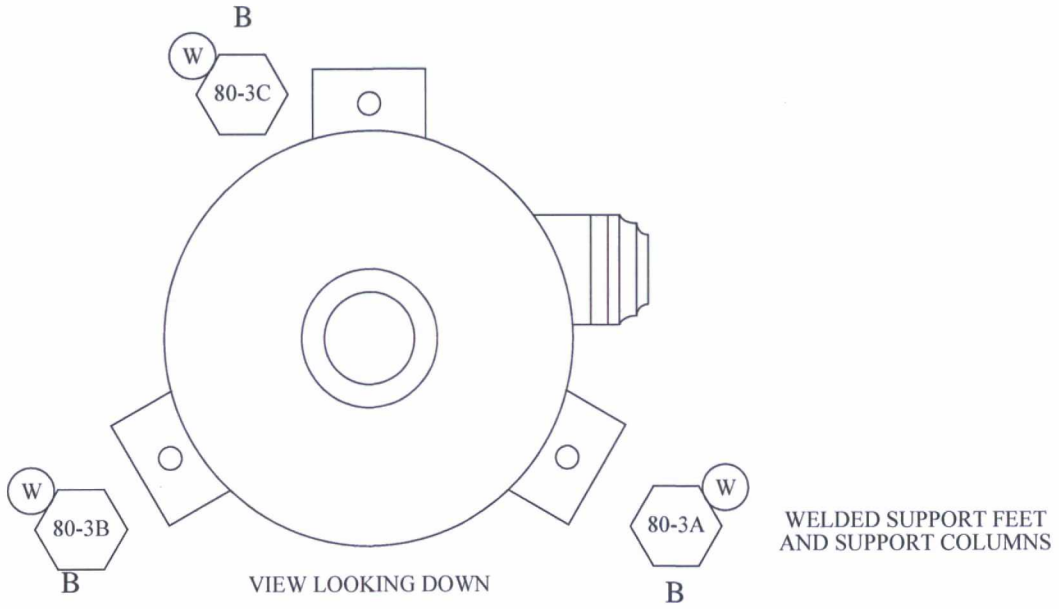


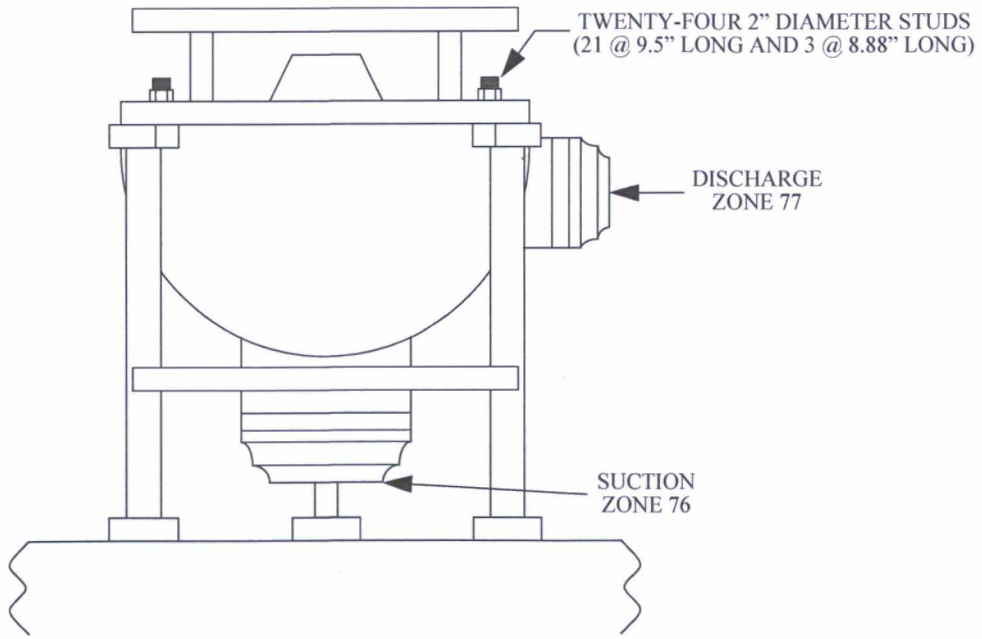

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-079 | 8" X 0.322" | 82-1A | - |
| SI-079 | 10" X 0.365" | 82-1 | 82-27 |
| SI-082 | 10" X 0.365" | 82-31 | 82-35 |

REFERENCE DRAWINGS

01-P-SIF-207

| UNIT 1 | ZONE 77 |
|---|---|
| CONTAINMENT SPRAY PUMP "A" DISCHARGE | |




NOTES:

1) TAG NUMBER: 1MSIAP03

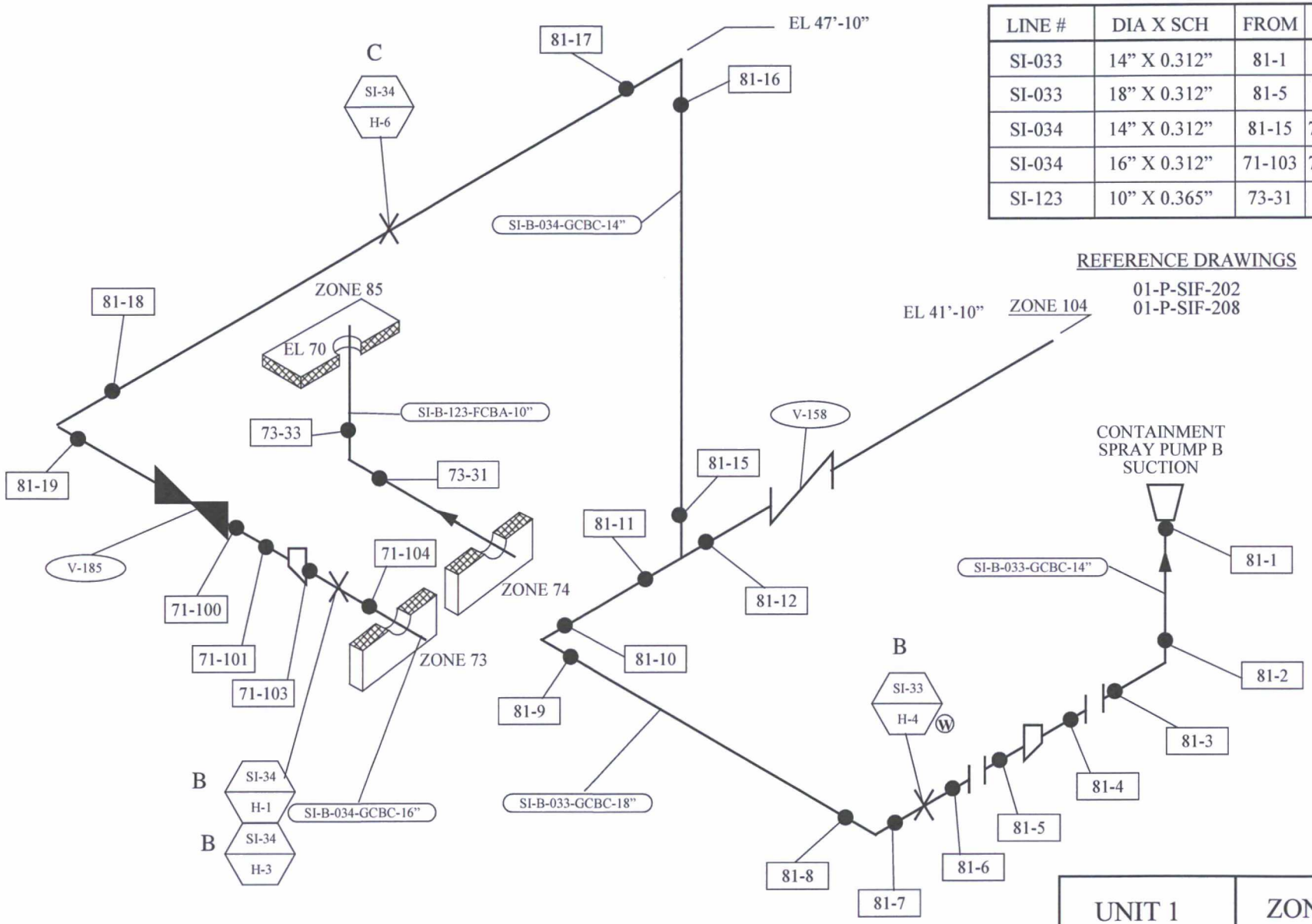
2) SERIAL NUMBER: 0876-38 INGERSOL RAND

3) NATIONAL BOARD NUMBER: 521

REFERENCE DRAWINGS

N001-11.01-36

| UNIT 1 | ZONE 78 |
|---|---|
| CONTAINMENT SPRAY PUMP "A" | |
| | 3INT-ISI-1, Rev. 5 |




| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-033 | 14" X 0.312" | 81-1 | 81-4 |
| SI-033 | 18" X 0.312" | 81-5 | 81-12 |
| SI-034 | 14" X 0.312" | 81-15 | 71-101 |
| SI-034 | 16" X 0.312" | 71-103 | 71-104 |
| SI-123 | 10" X 0.365" | 73-31 | 73-33 |

REFERENCE DRAWINGS

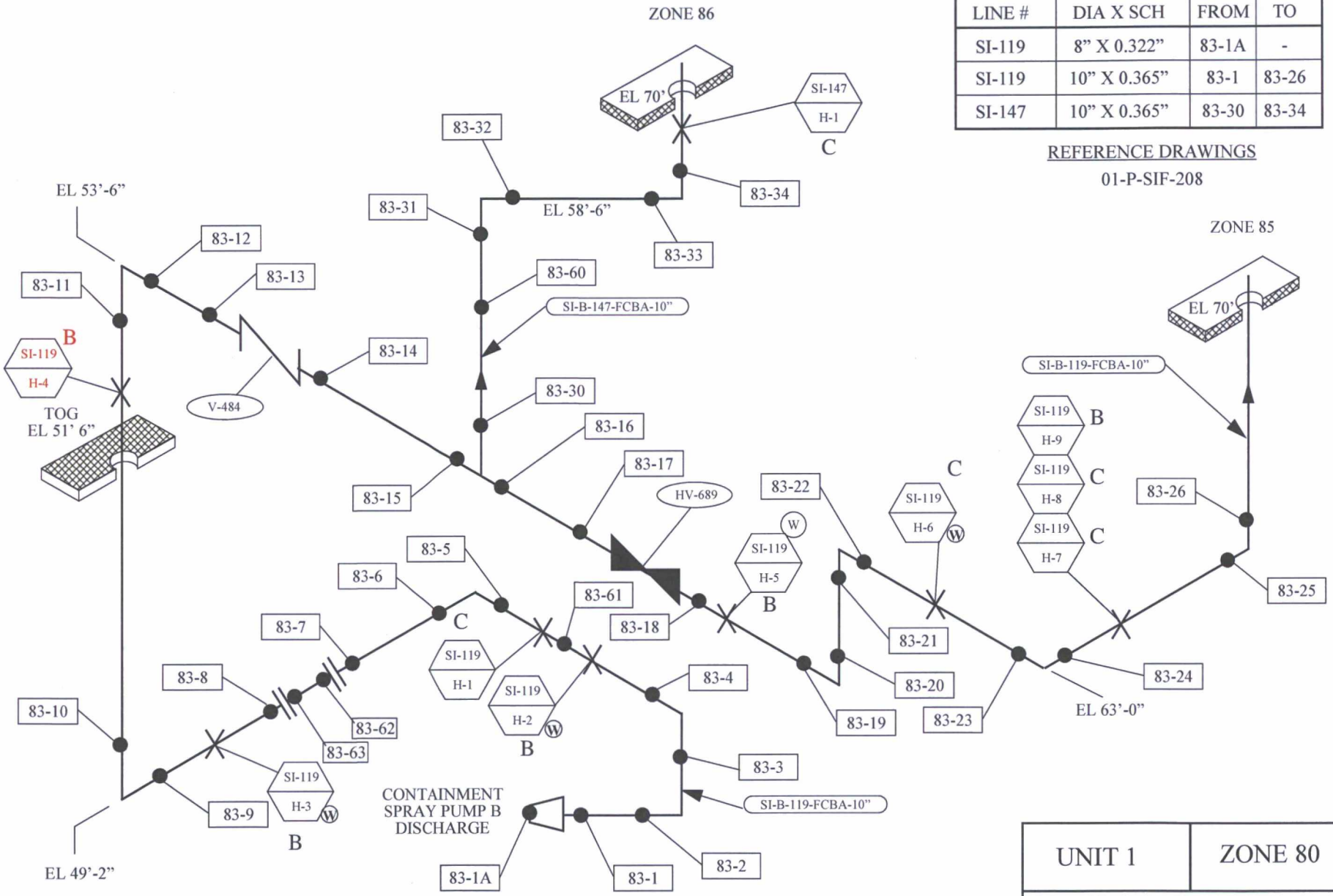
01-P-SIF-202
01-P-SIF-208

| UNIT 1 | ZONE 79 |
|---|---|
| CONTAINMENT SPRAY PUMP B SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

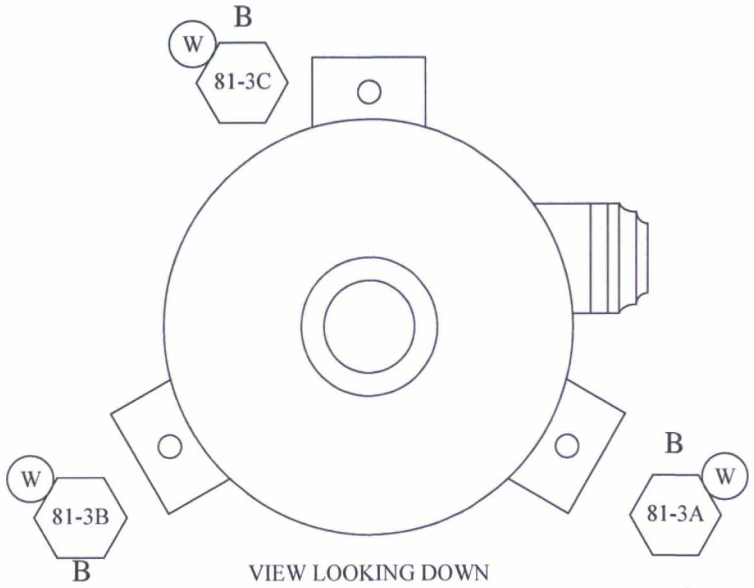
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-119 | 8" X 0.322" | 83-1A | - |
| SI-119 | 10" X 0.365" | 83-1 | 83-26 |
| SI-147 | 10" X 0.365" | 83-30 | 83-34 |

REFERENCE DRAWINGS

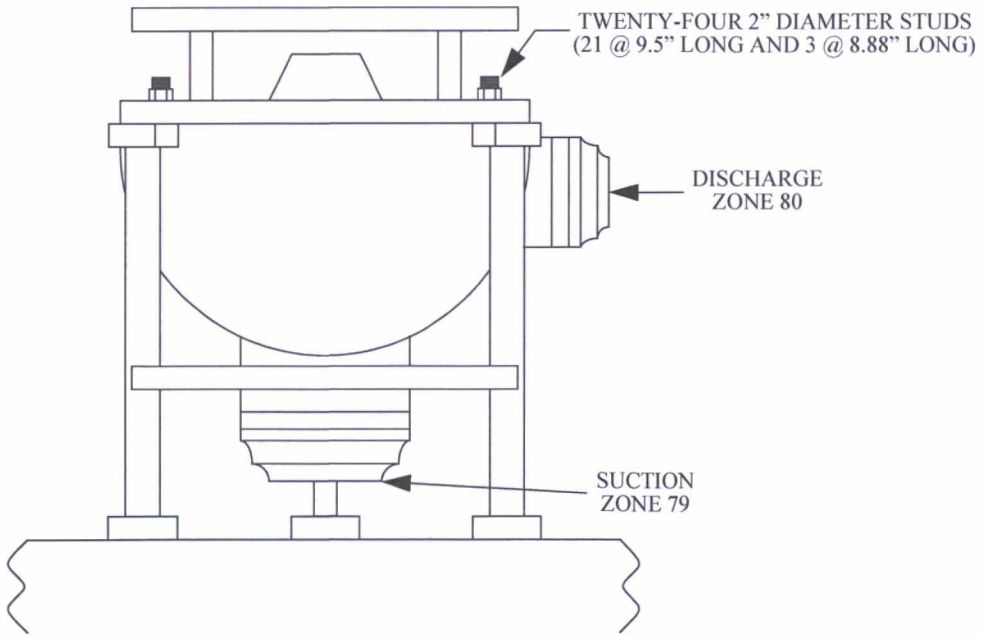
01-P-SIF-208




| UNIT 1 | ZONE 80 |
|---|---|
| CONTAINMENT SPRAY PUMP B DISCHARGE | |
| | 3INT-ISI-1, Rev. 5 |




WELDED SUPPORT FEET
AND SUPPORT COLUMNS




NOTES:

1) TAG NUMBER: 1MSIBP03

2) SERIAL NUMBER: 0876-39 INGERSOL RAND

3) NATIONAL BOARD NUMBER: 522

REFERENCE DRAWINGS

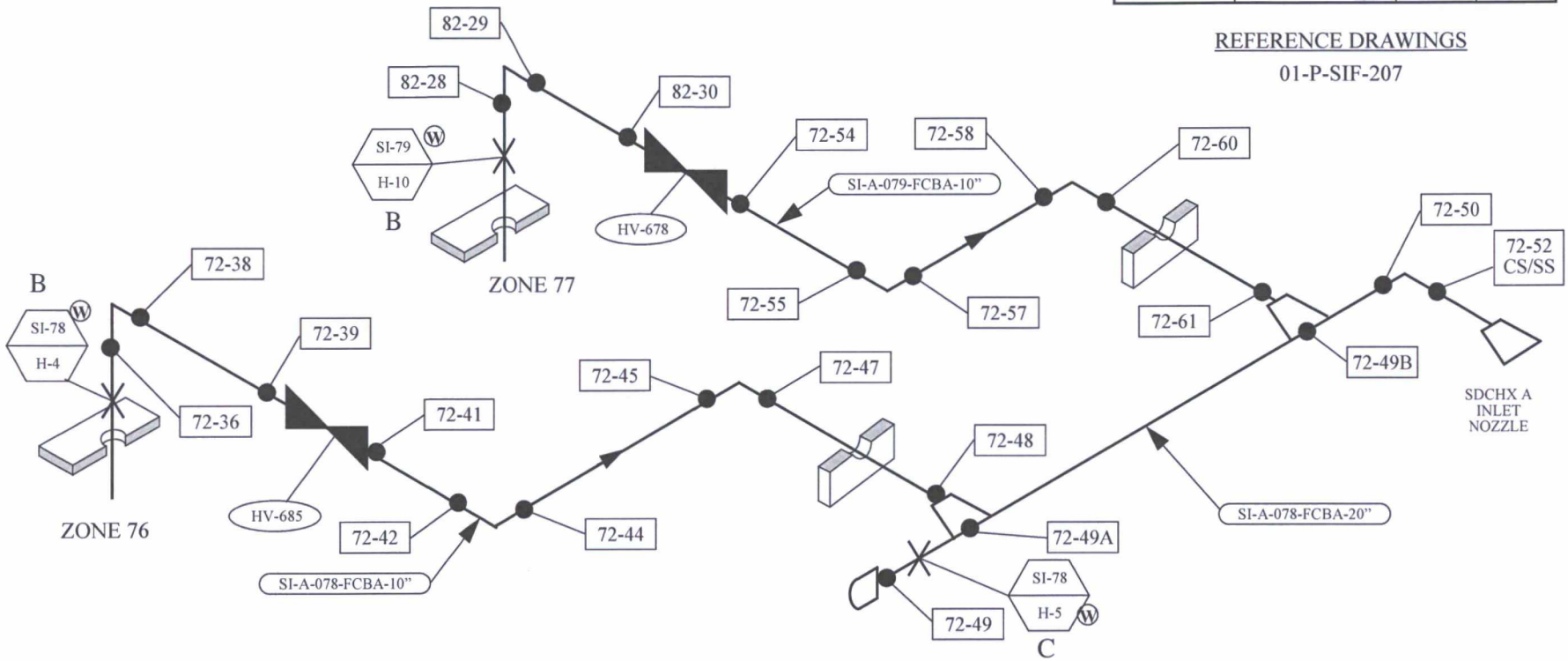
N001-11.01-36

| UNIT 1 | ZONE 81 |
|---|---|
| CONTAINMENT SPRAY PUMP "B" | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-078 | 10" X 0.365" | 72-36 | 72-48 |
| SI-078 | 20" X 0.500" | 72-49 | 72-52 |
| SI-079 | 10" X 0.365" | 82-28 | 72-61 |

REFERENCE DRAWINGS

01-P-SIF-207



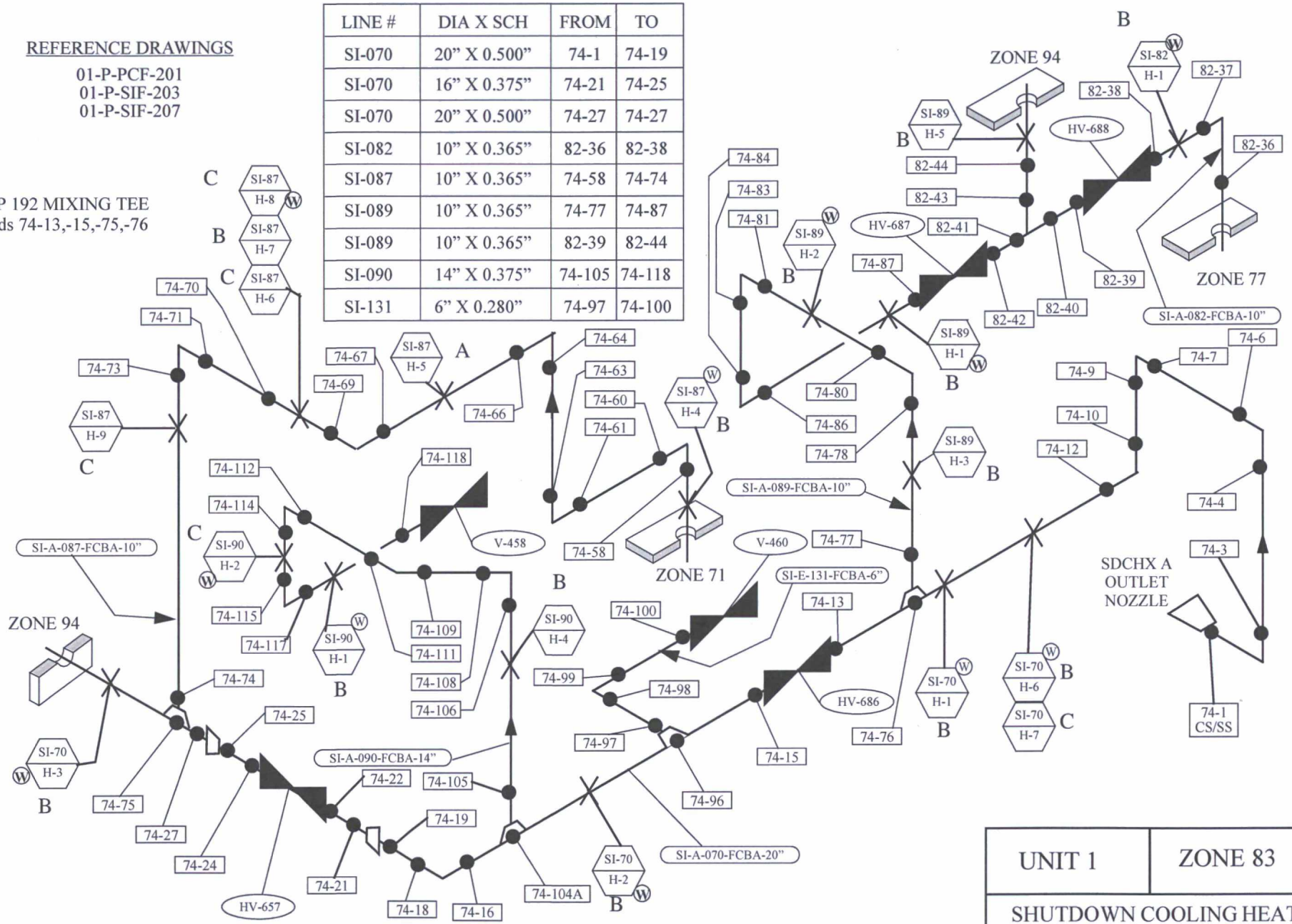

| UNIT 1 | ZONE 82 |
|---|---|
| SHUTDOWN COOLING HEAT EXCHANGER ROOM "A" | |

REFERENCE DRAWINGS

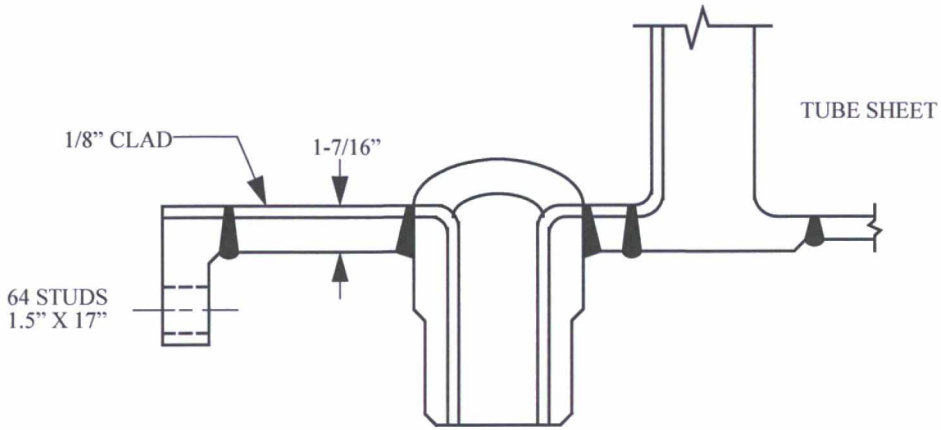
01-P-PCF-201
01-P-SIF-203
01-P-SIF-207

MRP 192 MIXING TEE
Welds 74-13,-15,-75,-76

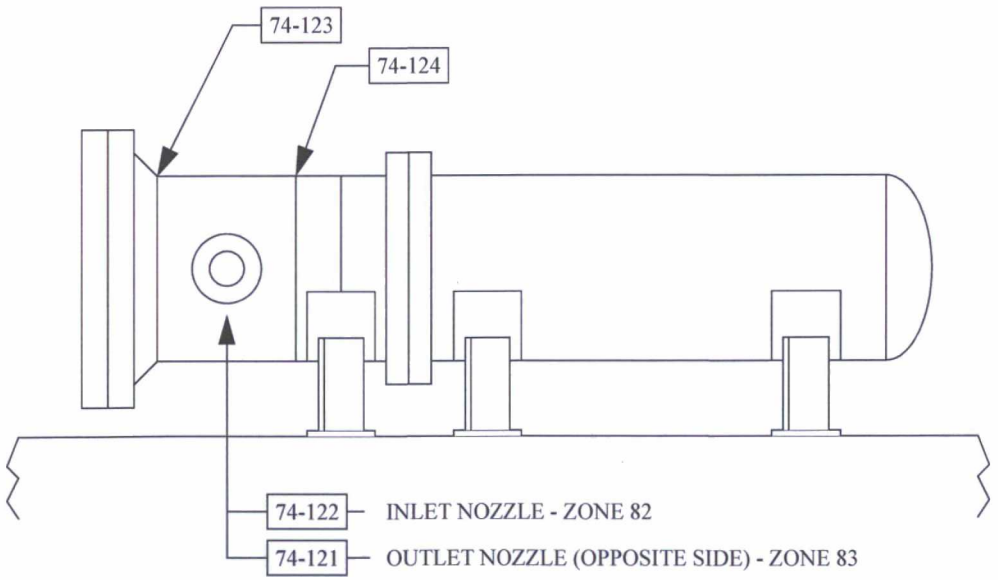
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-070 | 20" X 0.500" | 74-1 | 74-19 |
| SI-070 | 16" X 0.375" | 74-21 | 74-25 |
| SI-070 | 20" X 0.500" | 74-27 | 74-27 |
| SI-082 | 10" X 0.365" | 82-36 | 82-38 |
| SI-087 | 10" X 0.365" | 74-58 | 74-74 |
| SI-089 | 10" X 0.365" | 74-77 | 74-87 |
| SI-089 | 10" X 0.365" | 82-39 | 82-44 |
| SI-090 | 14" X 0.375" | 74-105 | 74-118 |
| SI-131 | 6" X 0.280" | 74-97 | 74-100 |




| UNIT 1 | ZONE 83 |
|---|---|
| SHUTDOWN COOLING HEAT EXCHANGER ROOM "A" | |




CHANNEL HEAD CROSS SECTION




NOTES:

1) TAG NUMBER: 1MSIAE01

2) SERIAL NUMBER: S-18341
(ENGR & FABRICATORS)

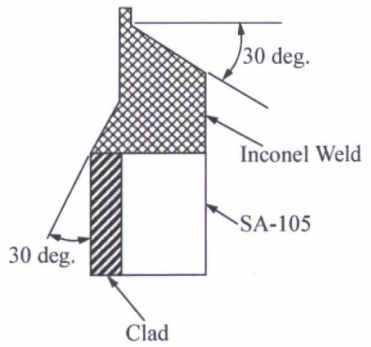
3) NATIONAL BOARD NUMBER 1708

4) ZERO DEGREE FOR GIRTH WELDS IS TDC. 90 DEGREE IS AT INLET NOZZLE SIDE.

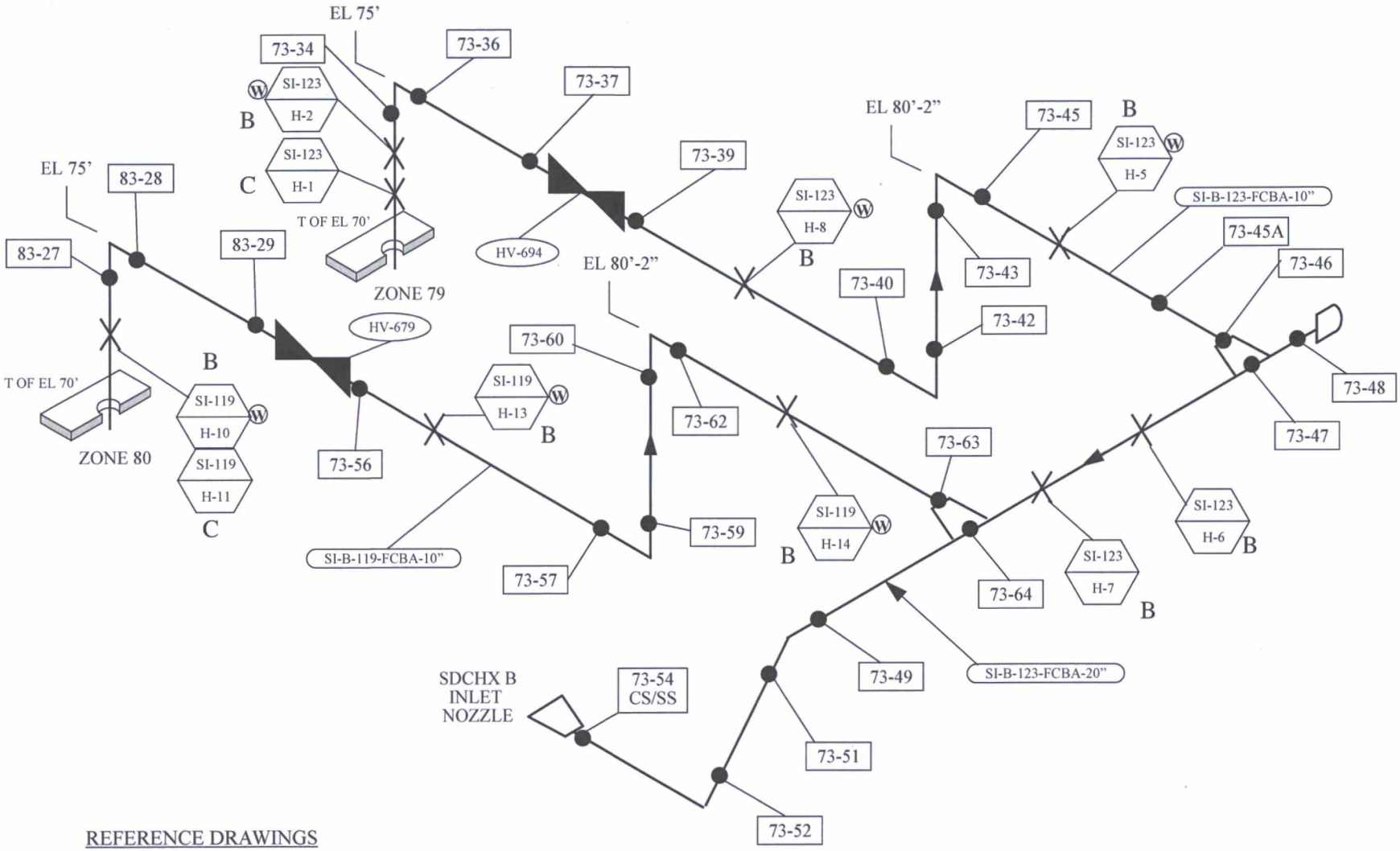
REFERENCE DRAWINGS:

N001-7.03-020
N001-7.03-25
N001-11.01-209

74-121
75-122
DETAIL




| UNIT 1 | ZONE 84 |
|---|---|
| SHUTDOWN COOLING HEAT EXCHANGER "A" | |
| | 3INT-ISI-1, Rev. 5 |



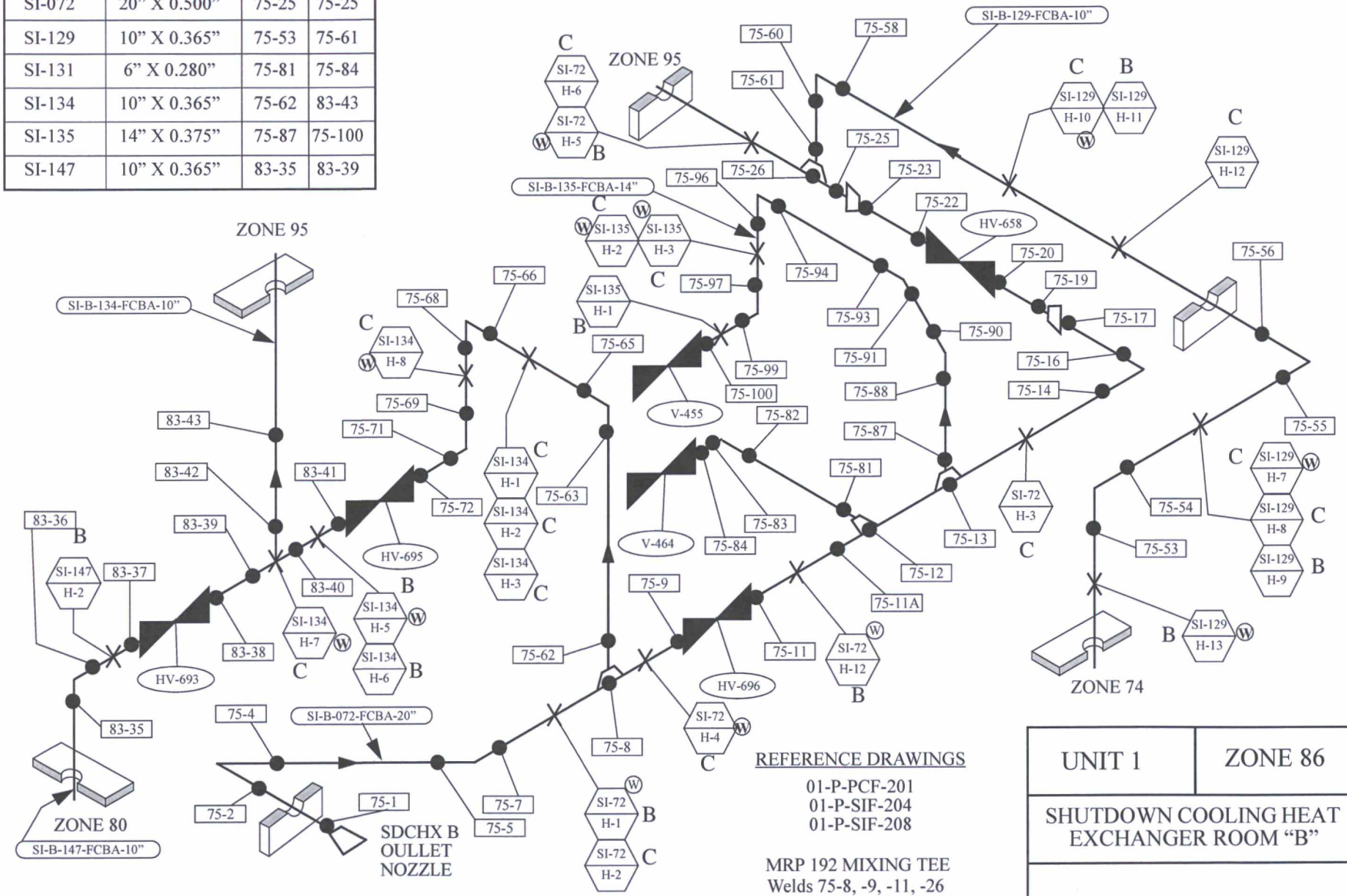

REFERENCE DRAWINGS

01-P-SIF-208

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-119 | 10" X 0.365" | 83-27 | 73-63 |
| SI-123 | 10" X 0.365" | 73-34 | 73-46 |
| SI-123 | 20" X 0.500" | 73-48 | 73-54 |

| UNIT 1 | ZONE 85 |
|---|---|
| SHUTDOWN COOLING HEAT EXCHANGER ROOM "B" | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-072 | 20" X 0.500" | 75-1 | 75-17 |
| SI-072 | 16" X 0.375" | 75-19 | 75-23 |
| SI-072 | 20" X 0.500" | 75-25 | 75-25 |
| SI-129 | 10" X 0.365" | 75-53 | 75-61 |
| SI-131 | 6" X 0.280" | 75-81 | 75-84 |
| SI-134 | 10" X 0.365" | 75-62 | 83-43 |
| SI-135 | 14" X 0.375" | 75-87 | 75-100 |
| SI-147 | 10" X 0.365" | 83-35 | 83-39 |

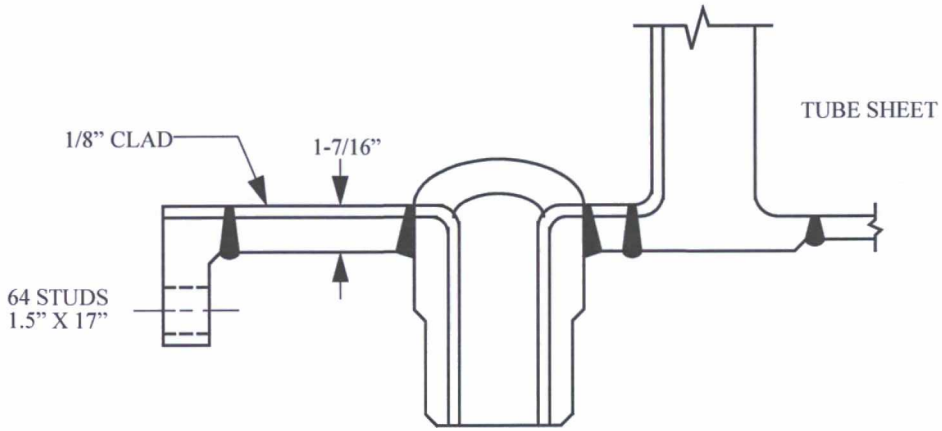



REFERENCE DRAWINGS

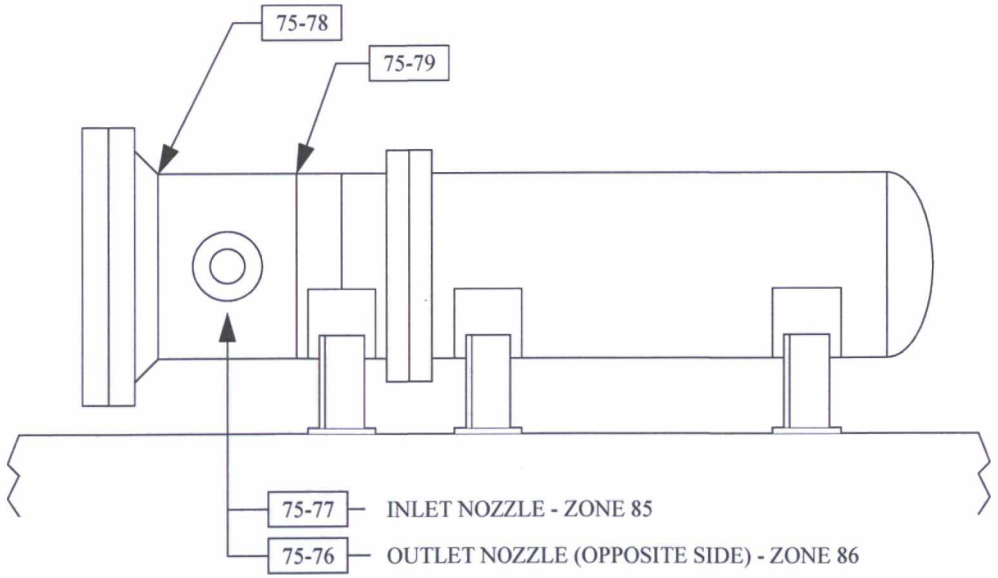
01-P-PCF-201
01-P-SIF-204
01-P-SIF-208

MRP 192 MIXING TEE
Welds 75-8, -9, -11, -26

| UNIT 1 | ZONE 86 |
|---|---|
| SHUTDOWN COOLING HEAT EXCHANGER ROOM "B" | |




CHANNEL HEAD CROSS SECTION




NOTES:

1) TAG NUMBER: 1MSIBE01

2) SERIAL NUMBER: S-18342
(ENGR & FABRICATORS)

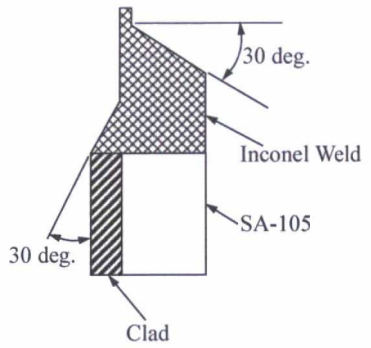
3) NATIONAL BOARD NUMBER 1709

4) ZERO DEGREE FOR GIRTH WELDS IS TDC. 90 DEGREE IS AT INLET NOZZLE SIDE.

REFERENCE DRAWINGS:

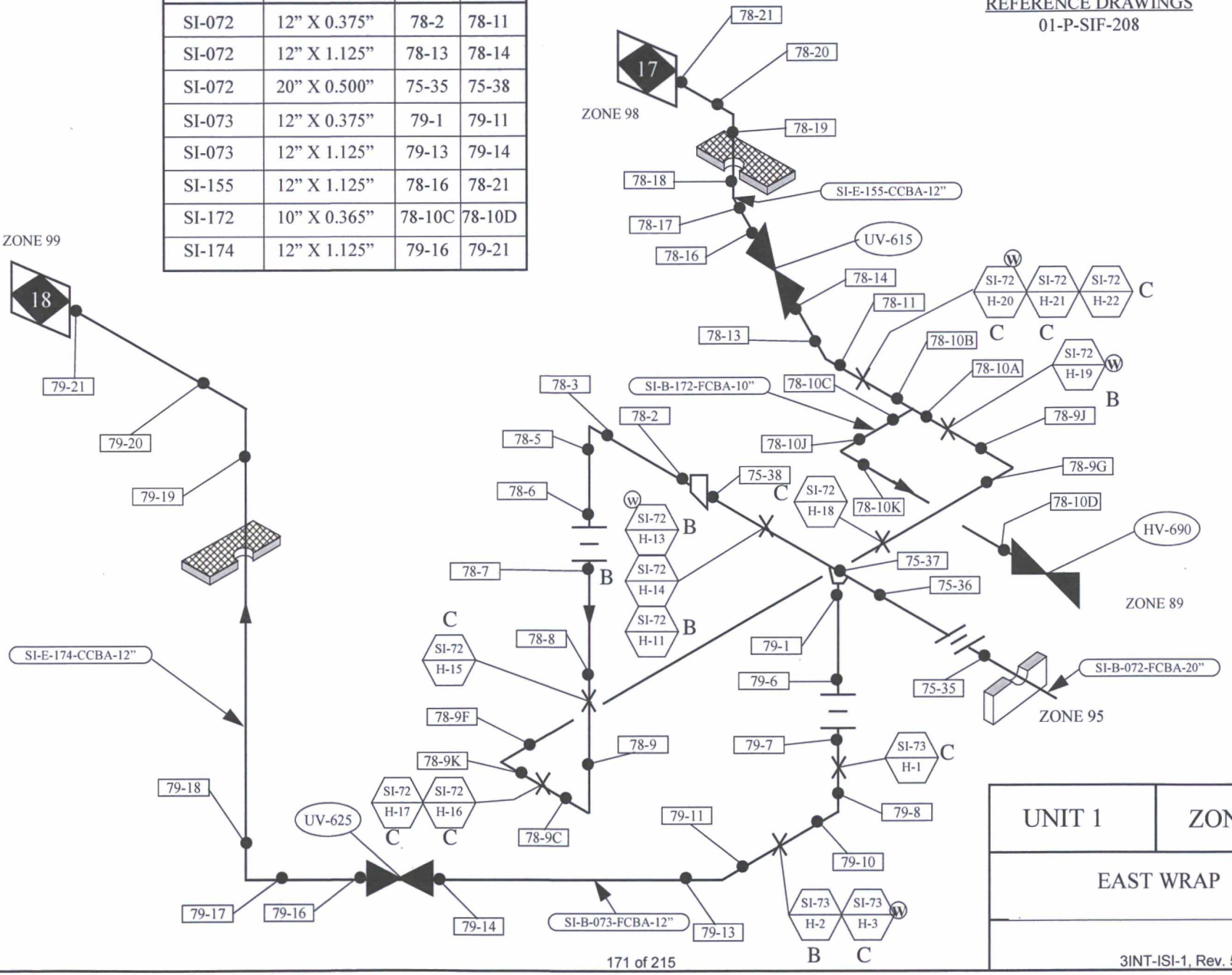
N001-7.03-020
N001-7.03-25
N001-11.01-209

75-76
75-77
DETAIL

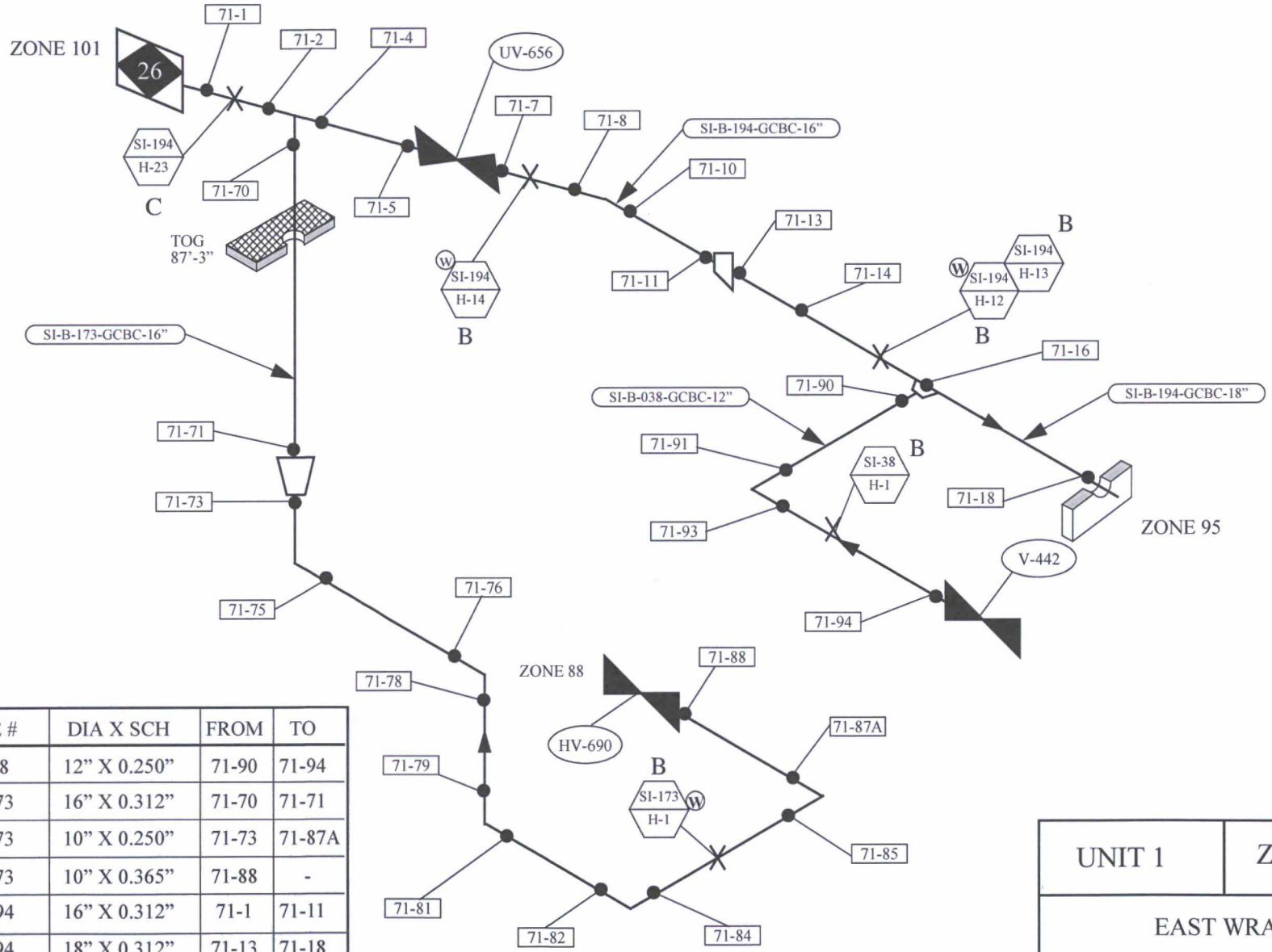



| UNIT 1 | ZONE 87 |
|---|---|
| SHUTDOWN COOLING HEAT EXCHANGER "B' | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-072 | 12" X 0.375" | 78-2 | 78-11 |
| SI-072 | 12" X 1.125" | 78-13 | 78-14 |
| SI-072 | 20" X 0.500" | 75-35 | 75-38 |
| SI-073 | 12" X 0.375" | 79-1 | 79-11 |
| SI-073 | 12" X 1.125" | 79-13 | 79-14 |
| SI-155 | 12" X 1.125" | 78-16 | 78-21 |
| SI-172 | 10" X 0.365" | 78-10C | 78-10D |
| SI-174 | 12" X 1.125" | 79-16 | 79-21 |



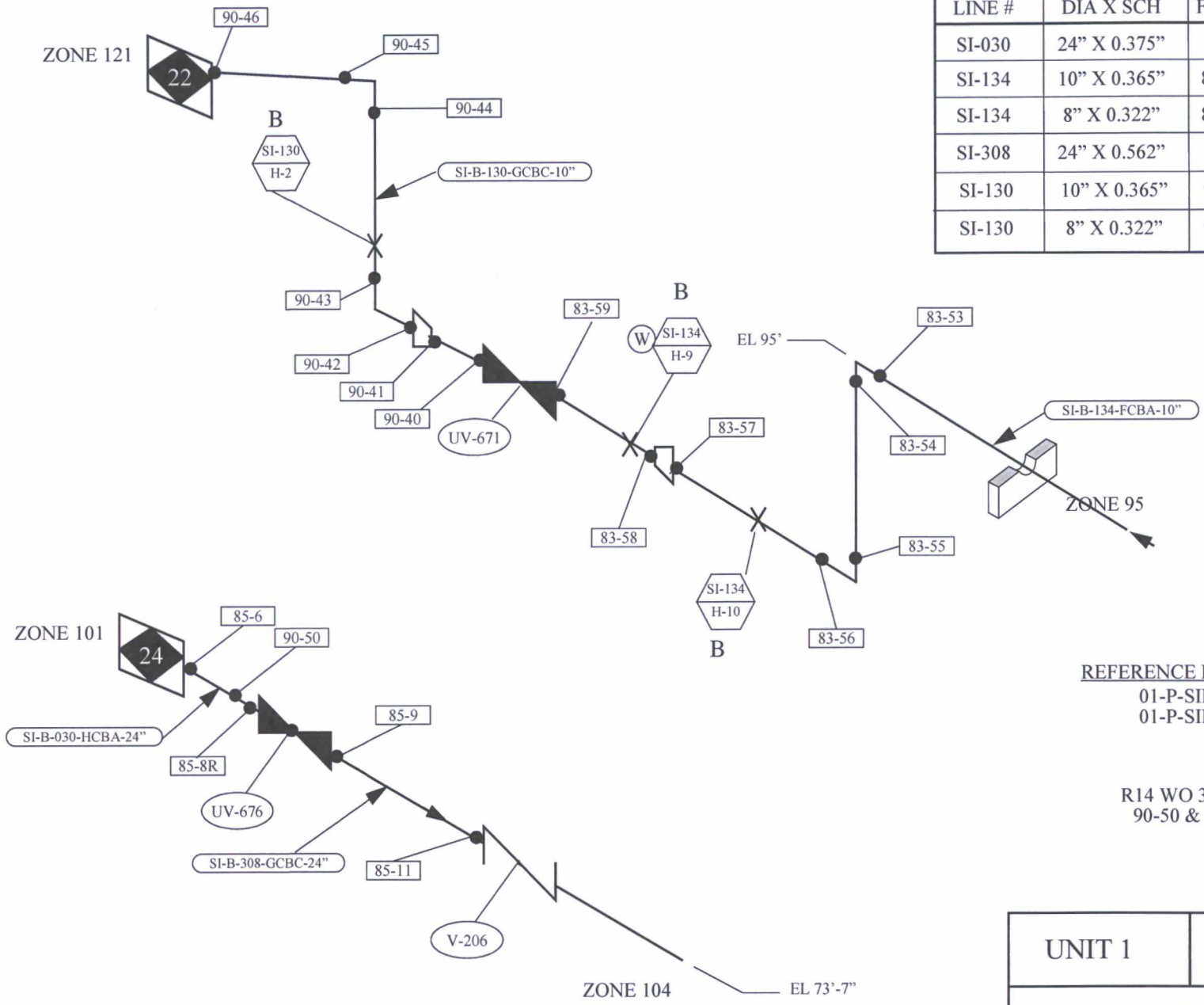
REFERENCE DRAWINGS
01-P-SIF-202
01-P-SIF-208




| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-38 | 12" X 0.250" | 71-90 | 71-94 |
| SI-173 | 16" X 0.312" | 71-70 | 71-71 |
| SI-173 | 10" X 0.250" | 71-73 | 71-87A |
| SI-173 | 10" X 0.365" | 71-88 | - |
| SI-194 | 16" X 0.312" | 71-1 | 71-11 |
| SI-194 | 18" X 0.312" | 71-13 | 71-18 |

| UNIT 1 | ZONE 89 |
|---|---|
| EAST WRAP | |
| 3INT-ISI-1, Rev. 5 | |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-030 | 24" X 0.375" | 85-6 | 85-8R |
| SI-134 | 10" X 0.365" | 83-53 | 83-57 |
| SI-134 | 8" X 0.322" | 83-58 | 83-59 |
| SI-308 | 24" X 0.562" | 85-9 | 85-11 |
| SI-130 | 10" X 0.365" | 90-42 | 90-46 |
| SI-130 | 8" X 0.322" | 90-40 | 90-41 |

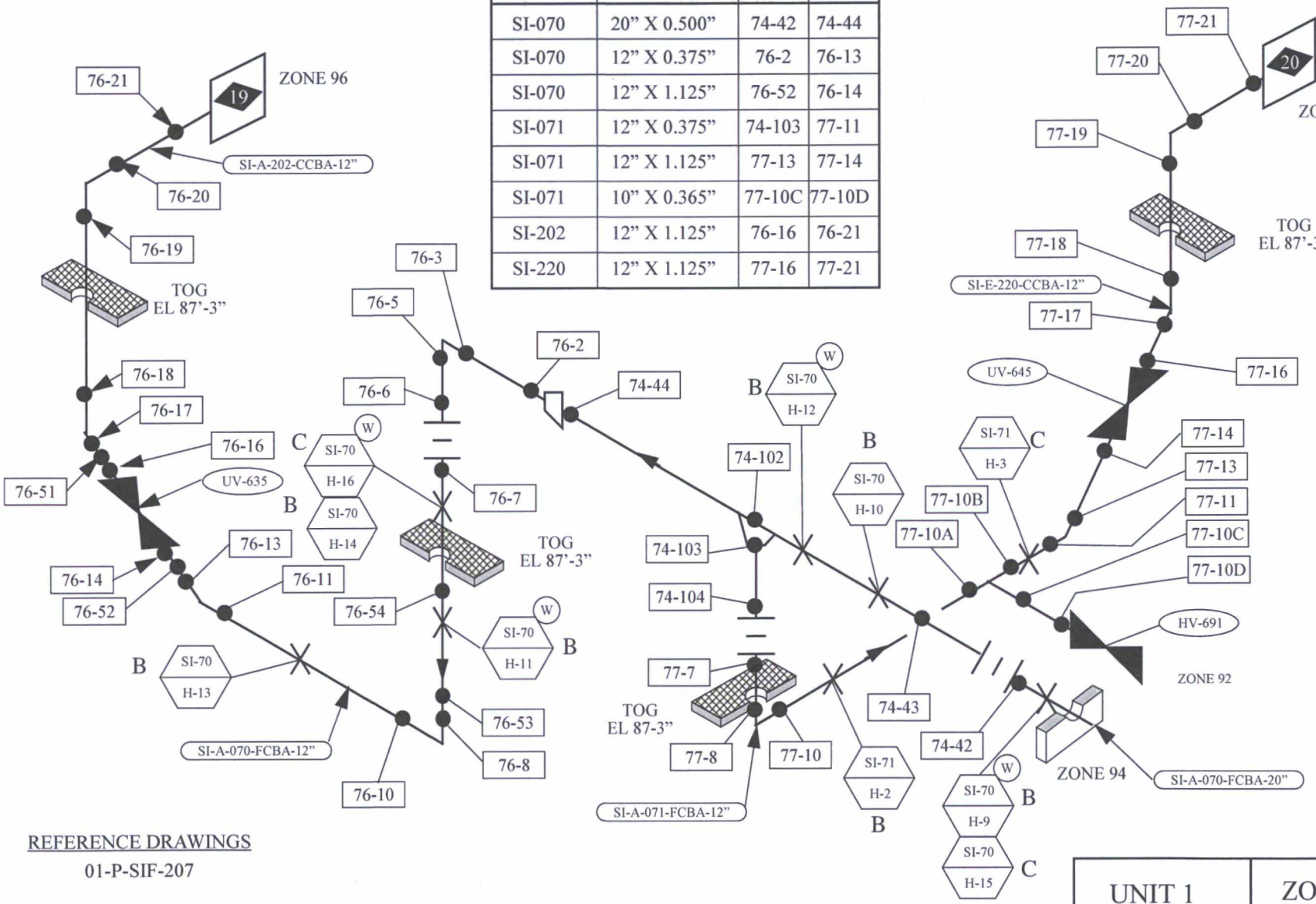



REFERENCE DRAWINGS
01-P-SIF-202
01-P-SIF-208

R14 WO 3136723
90-50 & 85-8R

| UNIT 1 | ZONE 90 |
|---|---|
| EAST WRAP | |

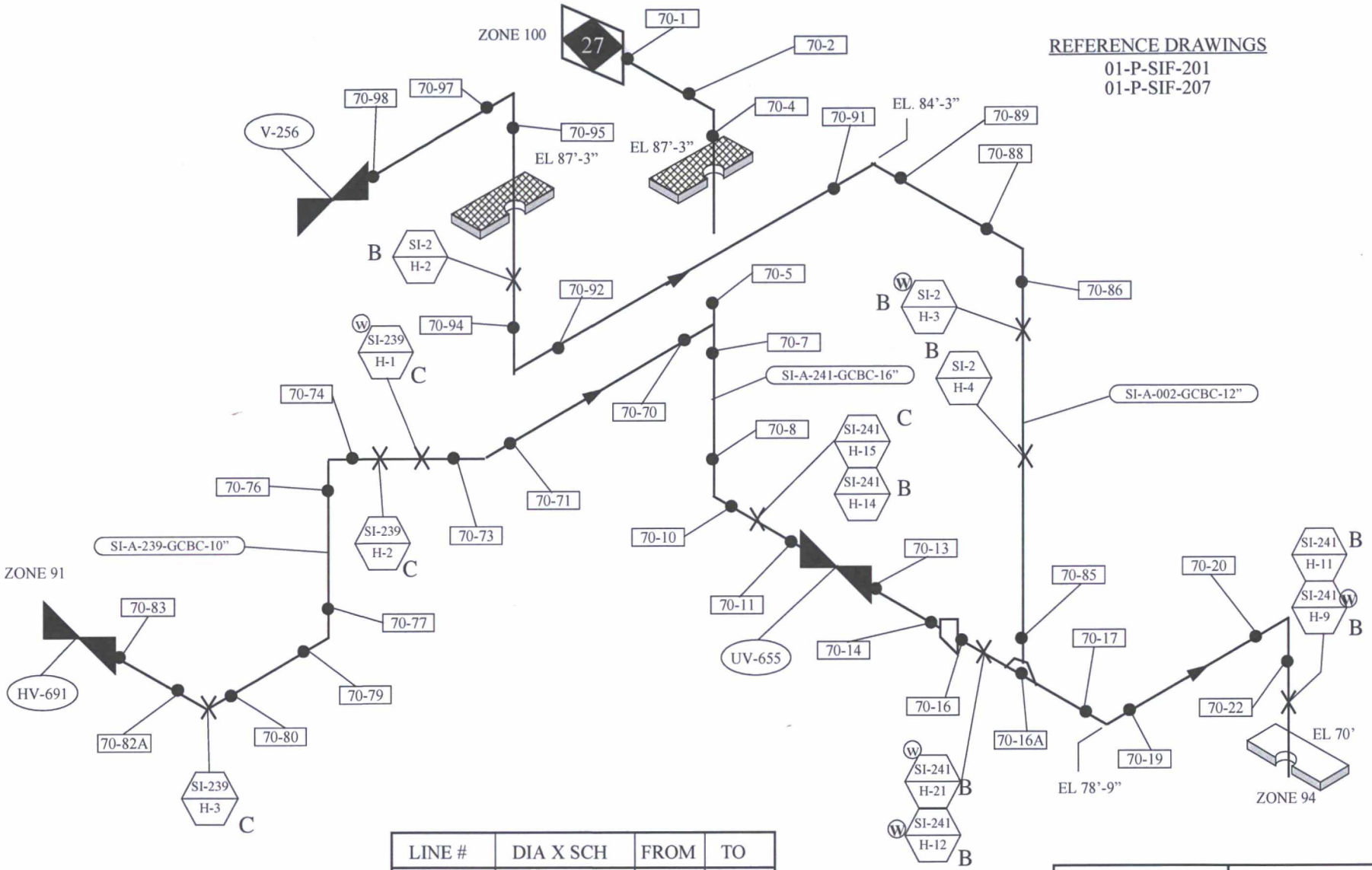
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-070 | 20" X 0.500" | 74-42 | 74-44 |
| SI-070 | 12" X 0.375" | 76-2 | 76-13 |
| SI-070 | 12" X 1.125" | 76-52 | 76-14 |
| SI-071 | 12" X 0.375" | 74-103 | 77-11 |
| SI-071 | 12" X 1.125" | 77-13 | 77-14 |
| SI-071 | 10" X 0.365" | 77-10C | 77-10D |
| SI-202 | 12" X 1.125" | 76-16 | 76-21 |
| SI-220 | 12" X 1.125" | 77-16 | 77-21 |




REFERENCE DRAWINGS

01-P-SIF-207

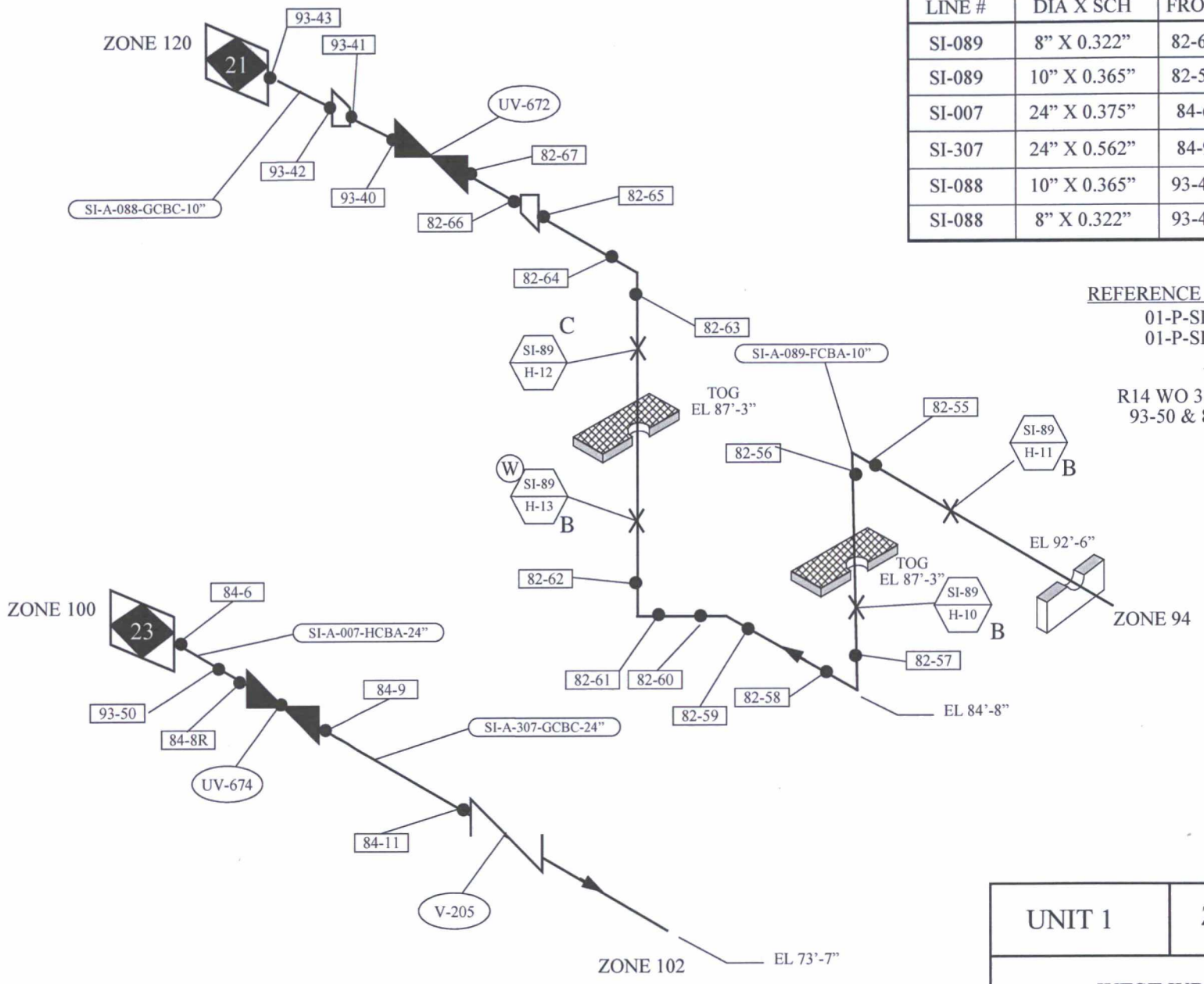
| UNIT 1 | ZONE 91 |
|---|---|
| WEST WRAP | |




REFERENCE DRAWINGS
01-P-SIF-201
01-P-SIF-207

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-002 | 12" X 0.250" | 70-85 | 70-98 |
| SI-239 | 10" X 0.250" | 70-70 | 70-82A |
| SI-239 | 10" X 0.365" | 70-83 | - |
| SI-241 | 16" X 0.312" | 70-1 | 70-14 |
| SI-241 | 18" X 0.312" | 70-16 | 70-22 |

| UNIT 1 | ZONE 92 |
|---|---|
| WEST WRAP | |
| 3INT-ISI-1, Rev. 5 | |

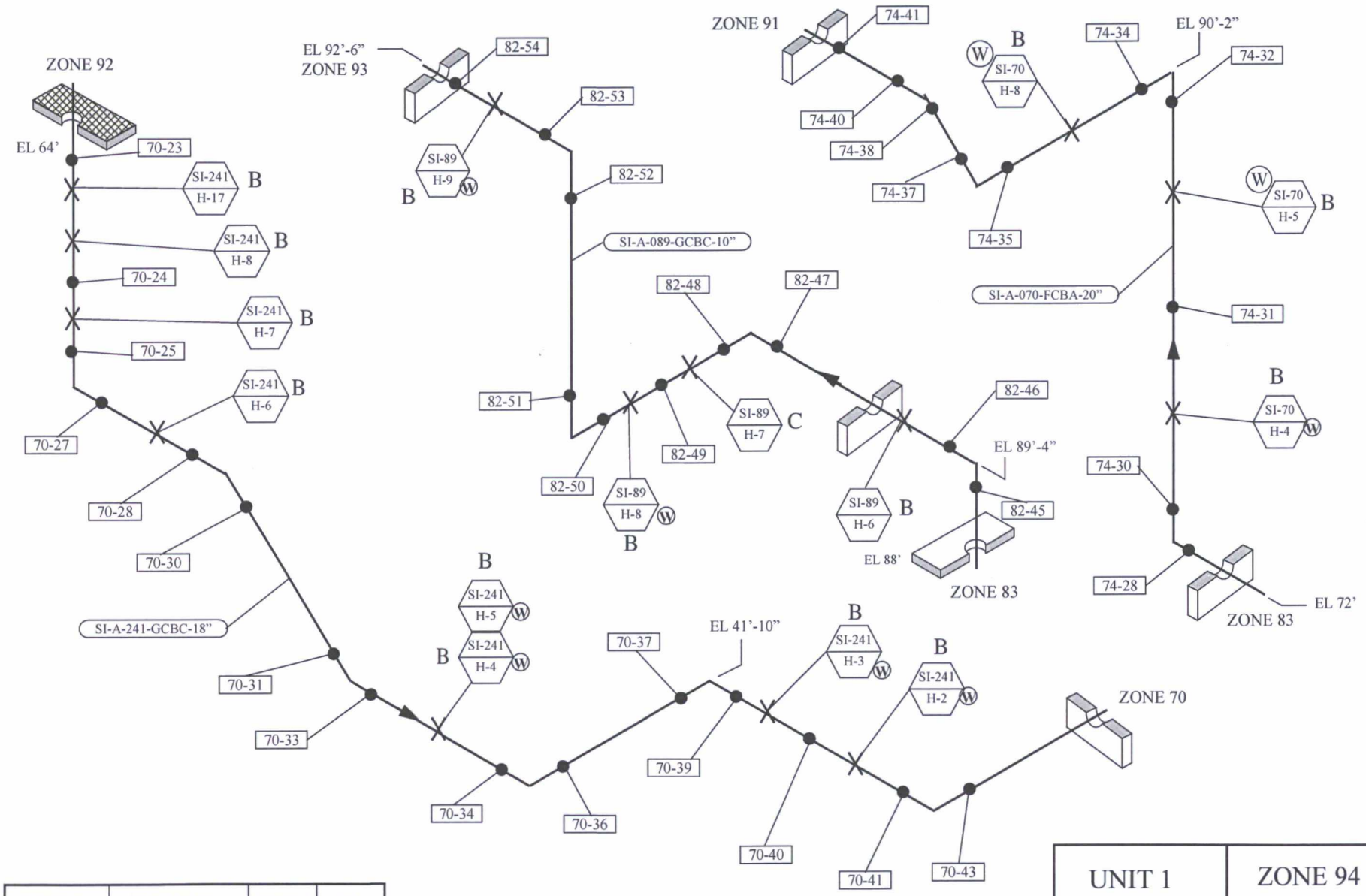



| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-089 | 8" X 0.322" | 82-66 | 82-67 |
| SI-089 | 10" X 0.365" | 82-55 | 82-65 |
| SI-007 | 24" X 0.375" | 84-6 | 84-8R |
| SI-307 | 24" X 0.562" | 84-9 | 84-11 |
| SI-088 | 10" X 0.365" | 93-42 | 93-43 |
| SI-088 | 8" X 0.322" | 93-40 | 93-41 |

REFERENCE DRAWINGS
01-P-SIF-201
01-P-SIF-207

R14 WO 3136754
93-50 & 84-8R

| UNIT 1 | ZONE 93 |
|---|---|
| WEST WRAP | |
| | 3INT-ISI-1, Rev. 5 |

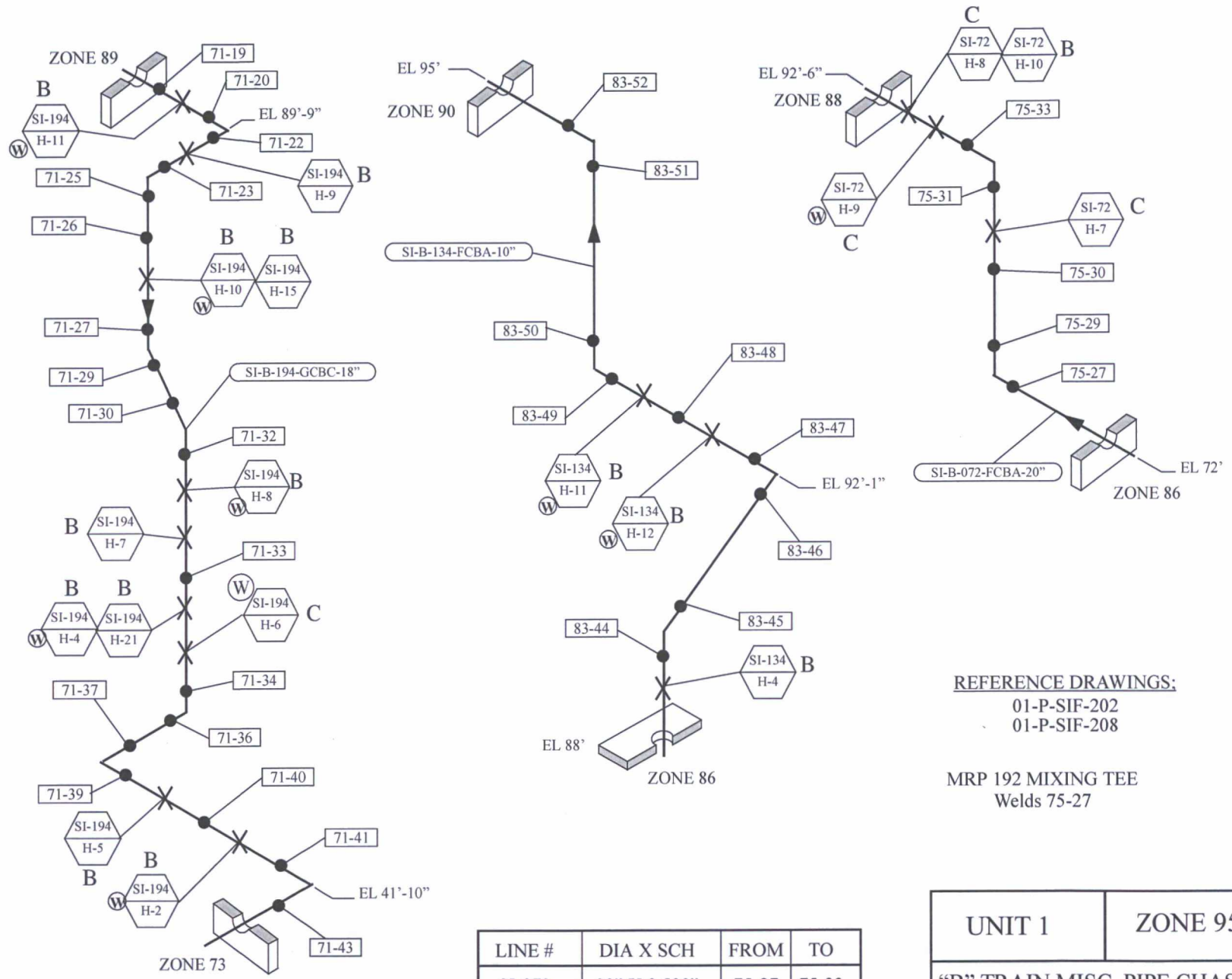



| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-070 | 20" X 0.500" | 74-28 | 74-41 |
| SI-089 | 10" X 0.365" | 82-45 | 82-54 |
| SI-241 | 18" X 0.312" | 70-23 | 70-43 |

REFERENCE DRAWINGS:
01-P-SIF-201
01-P-SIF-207

MRP 192 MIXING TEE
Welds 74-28

| UNIT 1 | ZONE 94 |
|---|---|
| "A" TRAIN MISC. PIPE CHASES AND 88' PIPE TUNNEL | |
| 3INT-ISI-1, Rev. 5 | |

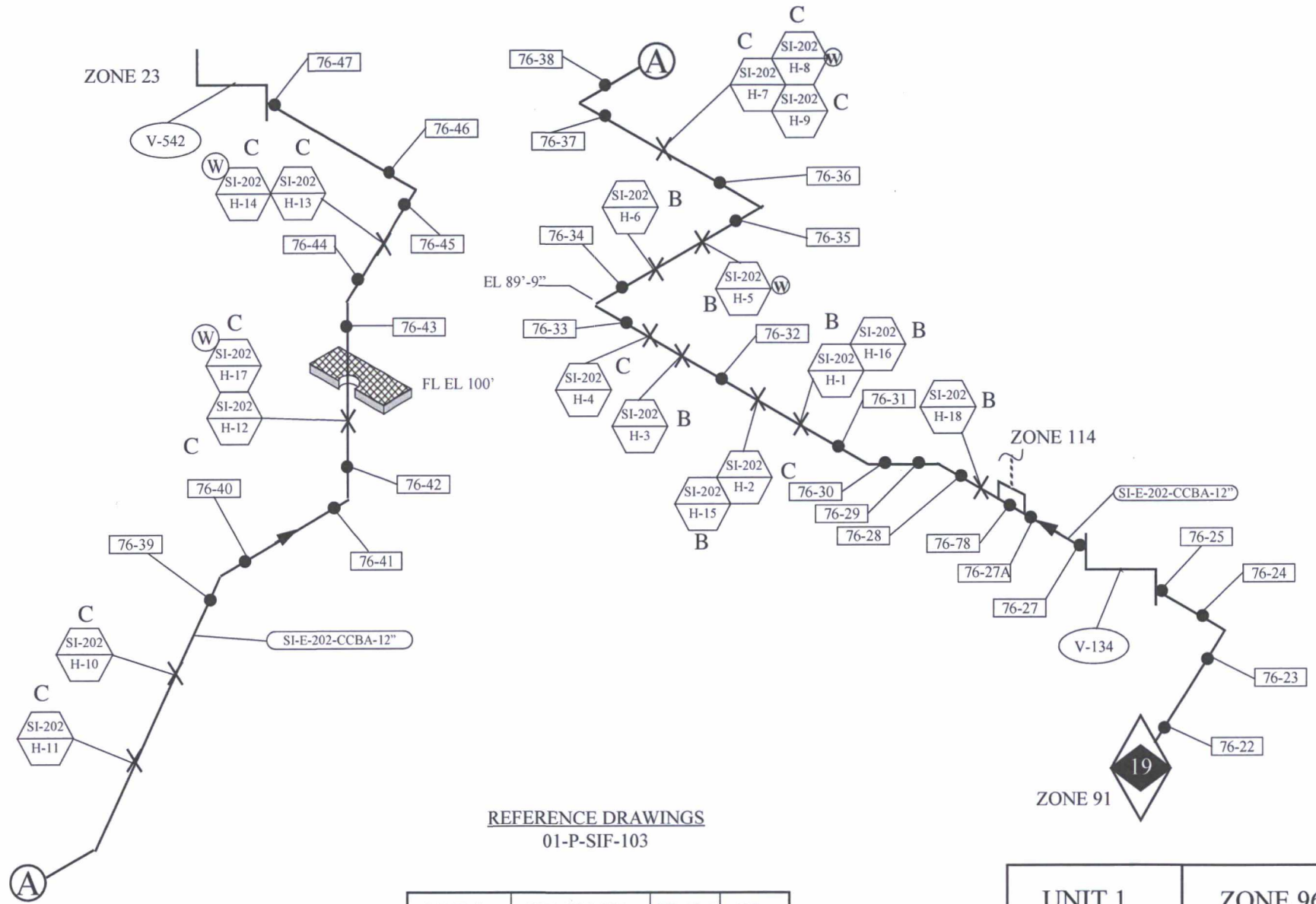



REFERENCE DRAWINGS;
01-P-SIF-202
01-P-SIF-208

MRP 192 MIXING TEE
Welds 75-27

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-072 | 20" X 0.500" | 75-27 | 75-33 |
| SI-134 | 10" X 0.365" | 83-44 | 83-52 |
| SI-194 | 18" X 0.312" | 71-19 | 71-43 |

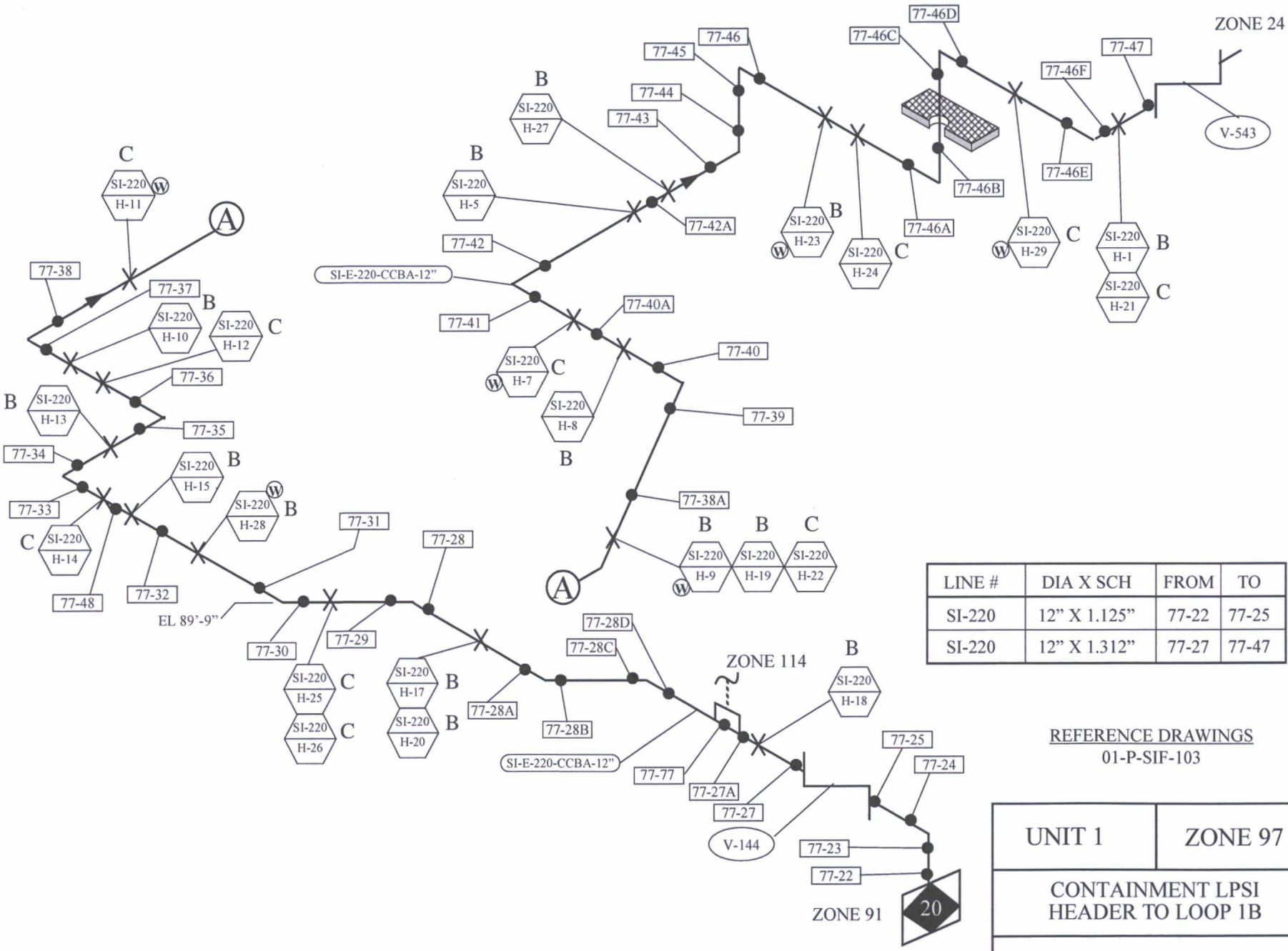
| UNIT 1 | ZONE 95 |
|---|---|
| "B" TRAIN MISC. PIPE CHASES AND 88' PIPE TUNNEL | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS
01-P-SIF-103

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-202 | 12" X 1.125" | 76-22 | 76-25 |
| SI-202 | 12" X 1.312" | 76-27 | 76-47 |

| UNIT 1 | ZONE 96 |
|---|---|
| CONTAINMENT LPSI HEADER TO LOOP 1A | |
| | 3INT-ISI-1, Rev. 5 |

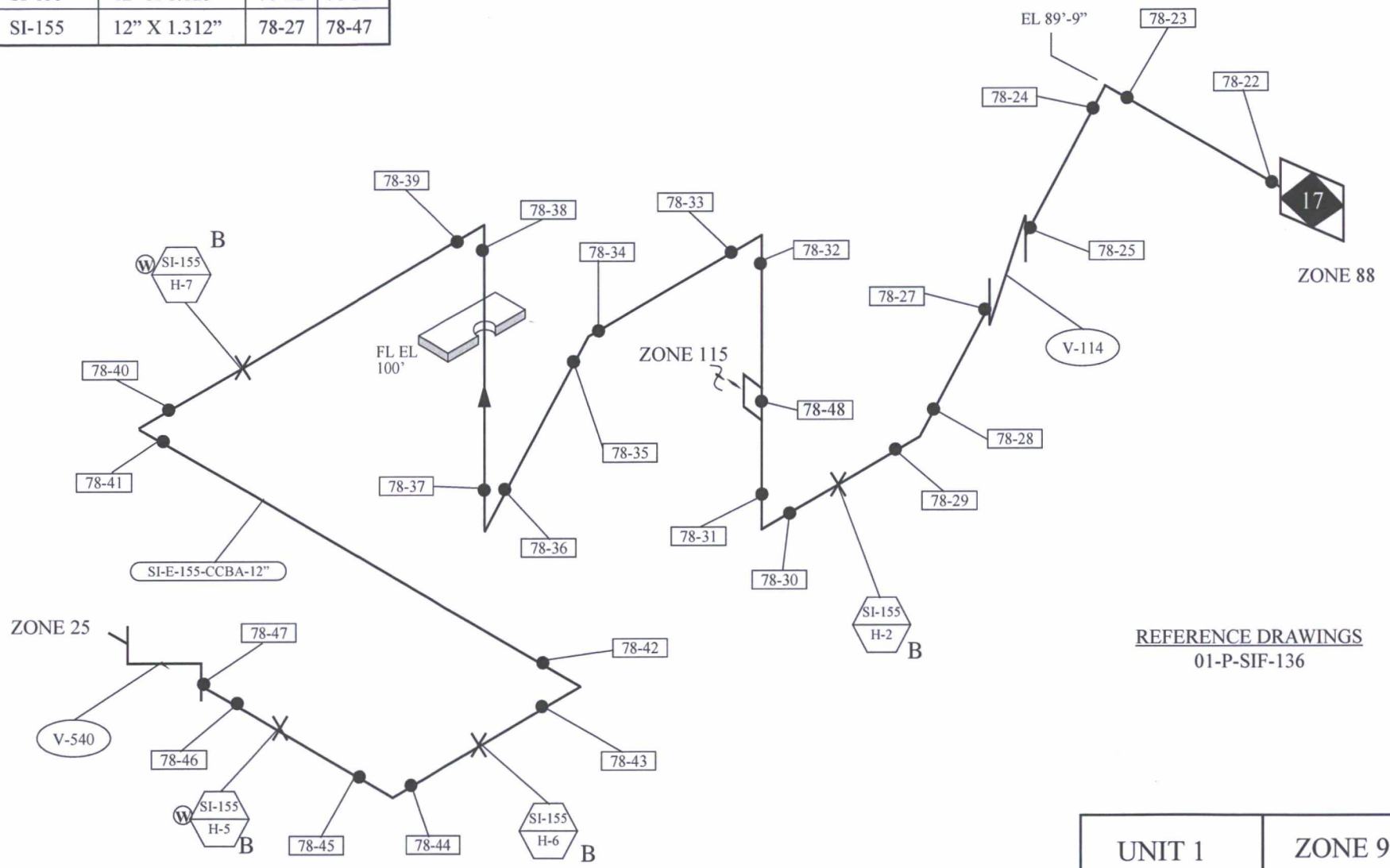



| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-220 | 12" X 1.125" | 77-22 | 77-25 |
| SI-220 | 12" X 1.312" | 77-27 | 77-47 |

REFERENCE DRAWINGS
01-P-SIF-103

| UNIT 1 | ZONE 97 |
|---|---|
| CONTAINMENT LPSI HEADER TO LOOP 1B | |
| | 3INT-ISI-1, Rev. 5 |

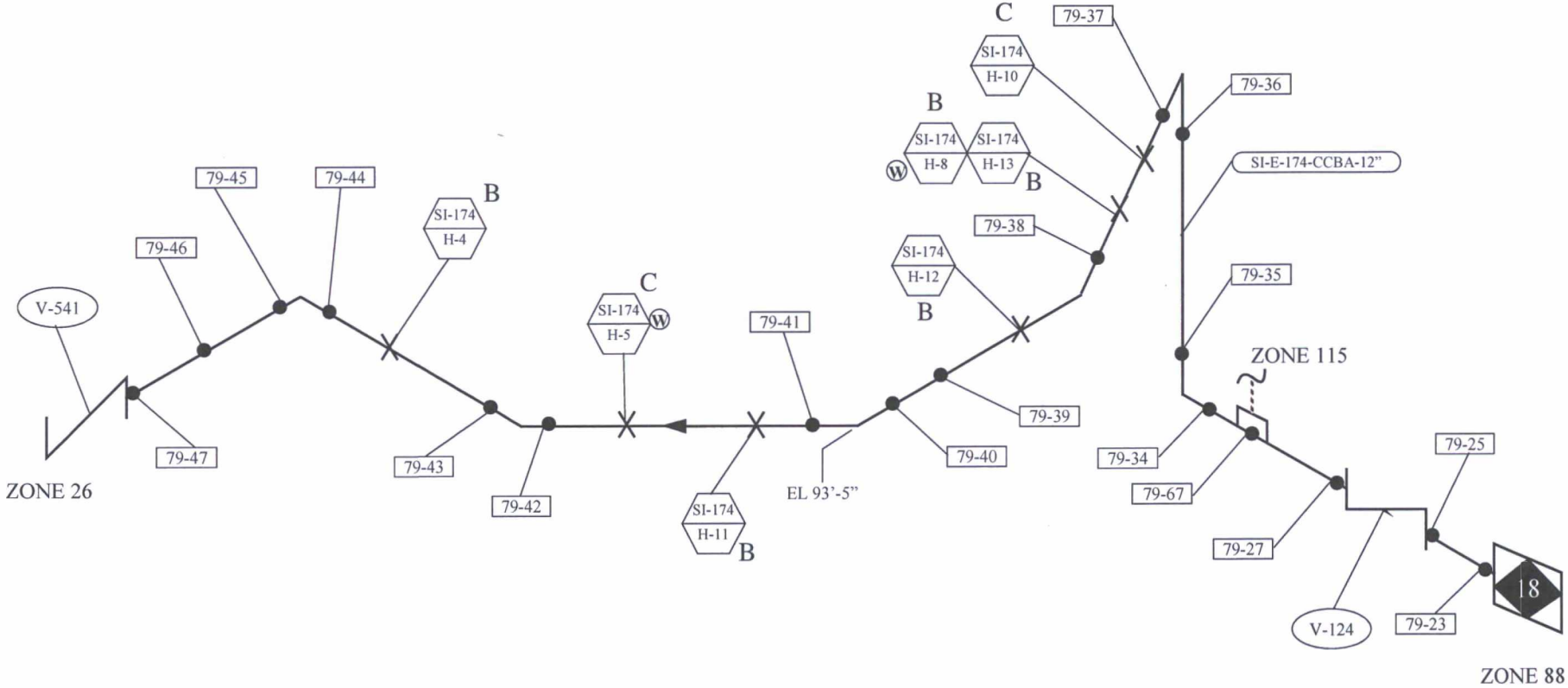
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-155 | 12" X 1.125" | 78-22 | 78-25 |
| SI-155 | 12" X 1.312" | 78-27 | 78-47 |




REFERENCE DRAWINGS
01-P-SIF-136

| UNIT 1 | ZONE 98 |
|---|---|
| CONTAINMENT LPSI HEADER TO LOOP 2A | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-174 | 12" X 1.125" | 79-23 | 79-25 |
| SI-174 | 12" X 1.312" | 79-27 | 79-47 |

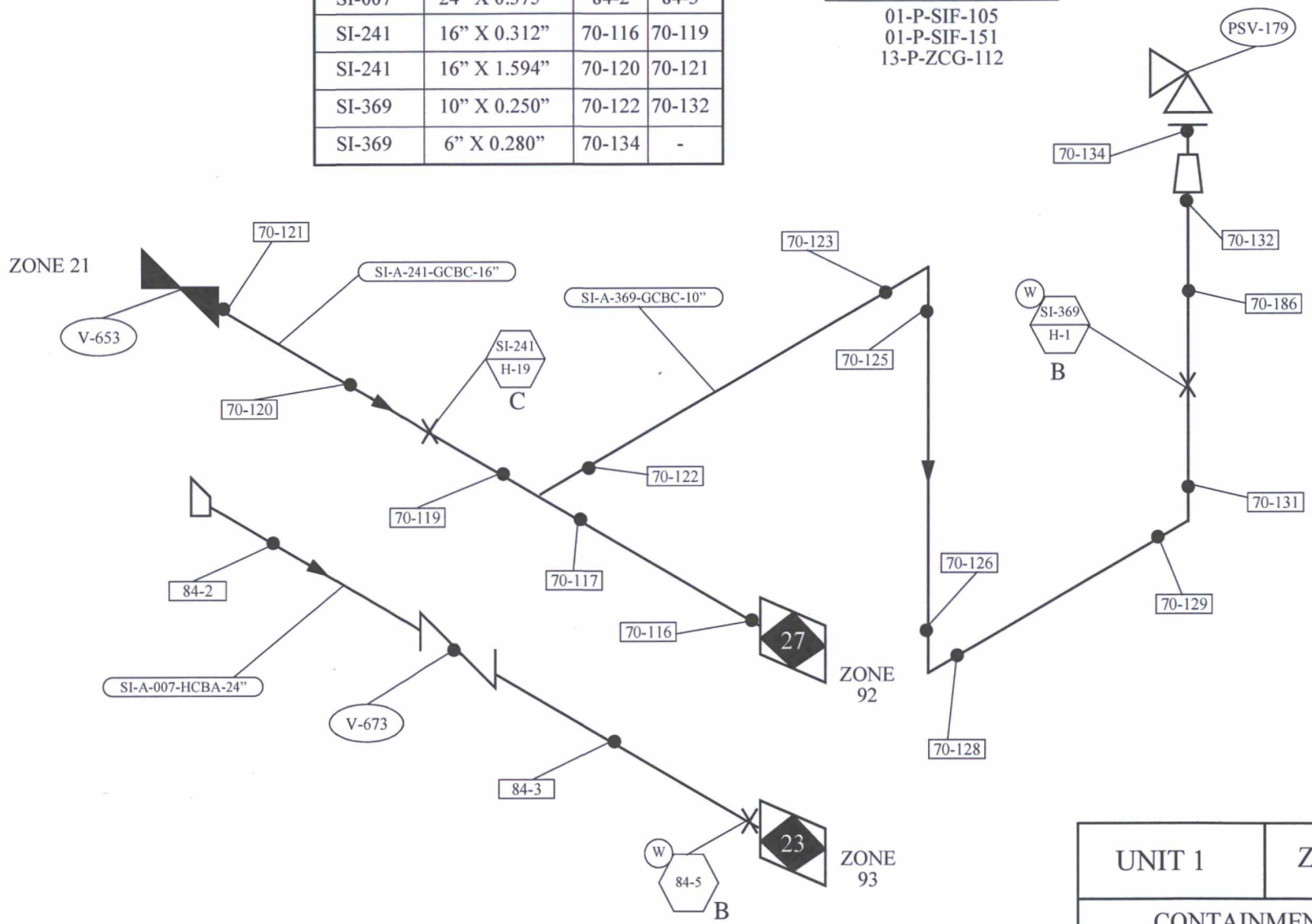



REFERENCE DRAWINGS
01-P-SIF-136

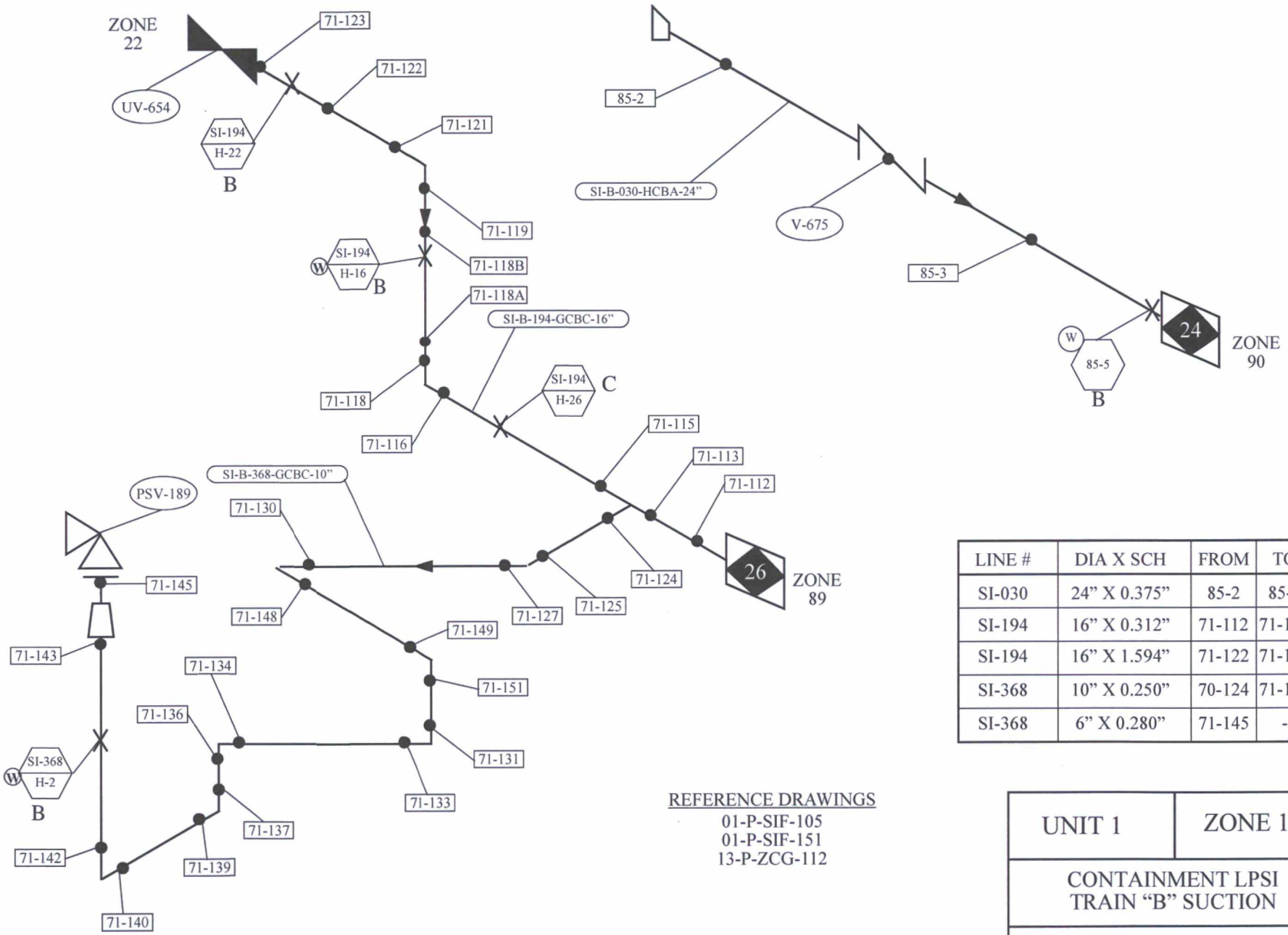
| UNIT 1 | ZONE 99 |
|---|---|
| CONTAINMENT LPSI HEADER TO LOOP 2B | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-007 | 24" X 0.375" | 84-2 | 84-3 |
| SI-241 | 16" X 0.312" | 70-116 | 70-119 |
| SI-241 | 16" X 1.594" | 70-120 | 70-121 |
| SI-369 | 10" X 0.250" | 70-122 | 70-132 |
| SI-369 | 6" X 0.280" | 70-134 | - |

REFERENCE DRAWINGS
01-P-SIF-105
01-P-SIF-151
13-P-ZCG-112




| UNIT 1 | ZONE 100 |
|---|---|
| CONTAINMENT LPSI TRAIN "A" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

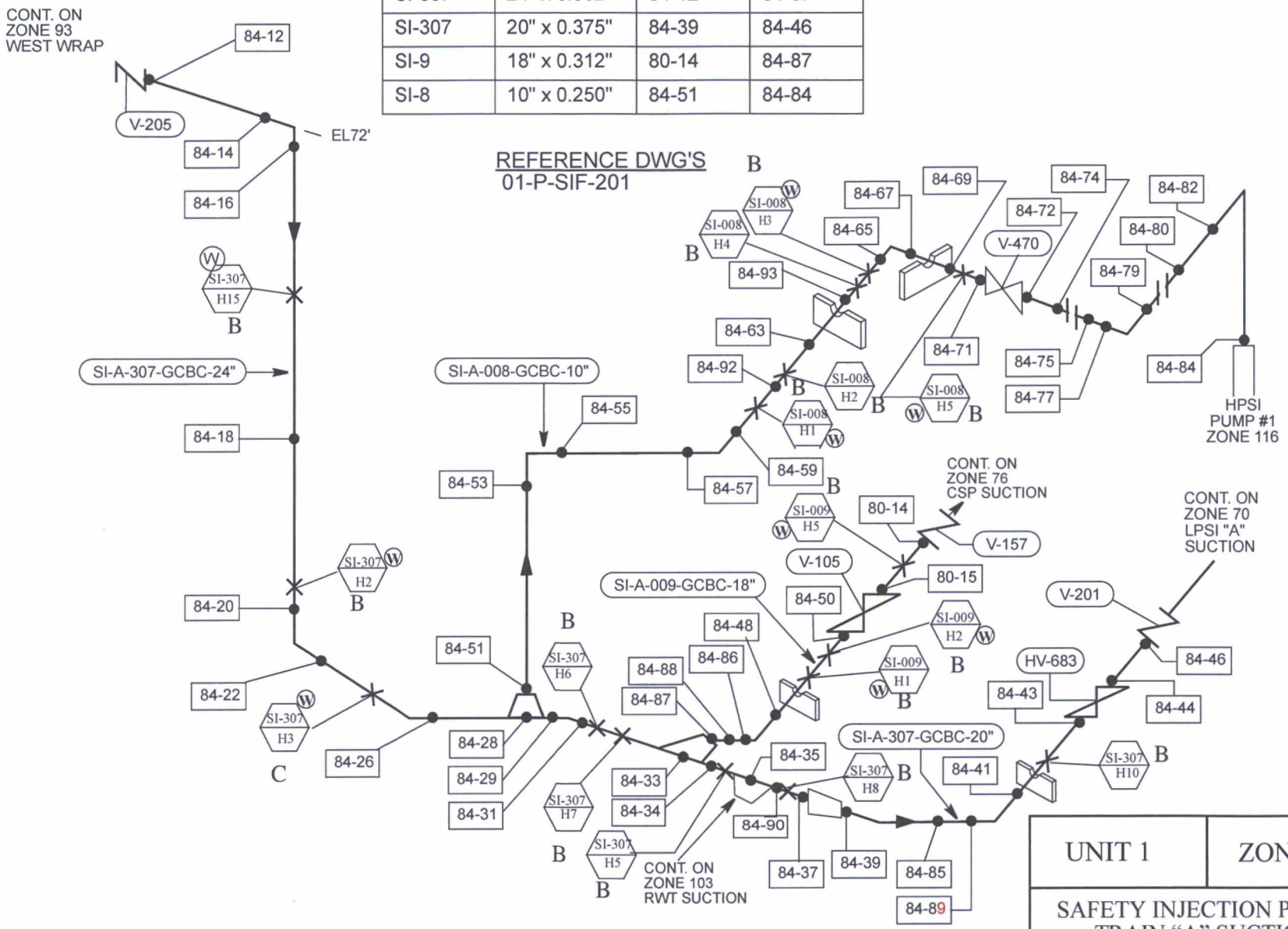



| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-030 | 24" X 0.375" | 85-2 | 85-3 |
| SI-194 | 16" X 0.312" | 71-112 | 71-121 |
| SI-194 | 16" X 1.594" | 71-122 | 71-123 |
| SI-368 | 10" X 0.250" | 70-124 | 71-143 |
| SI-368 | 6" X 0.280" | 71-145 | - |

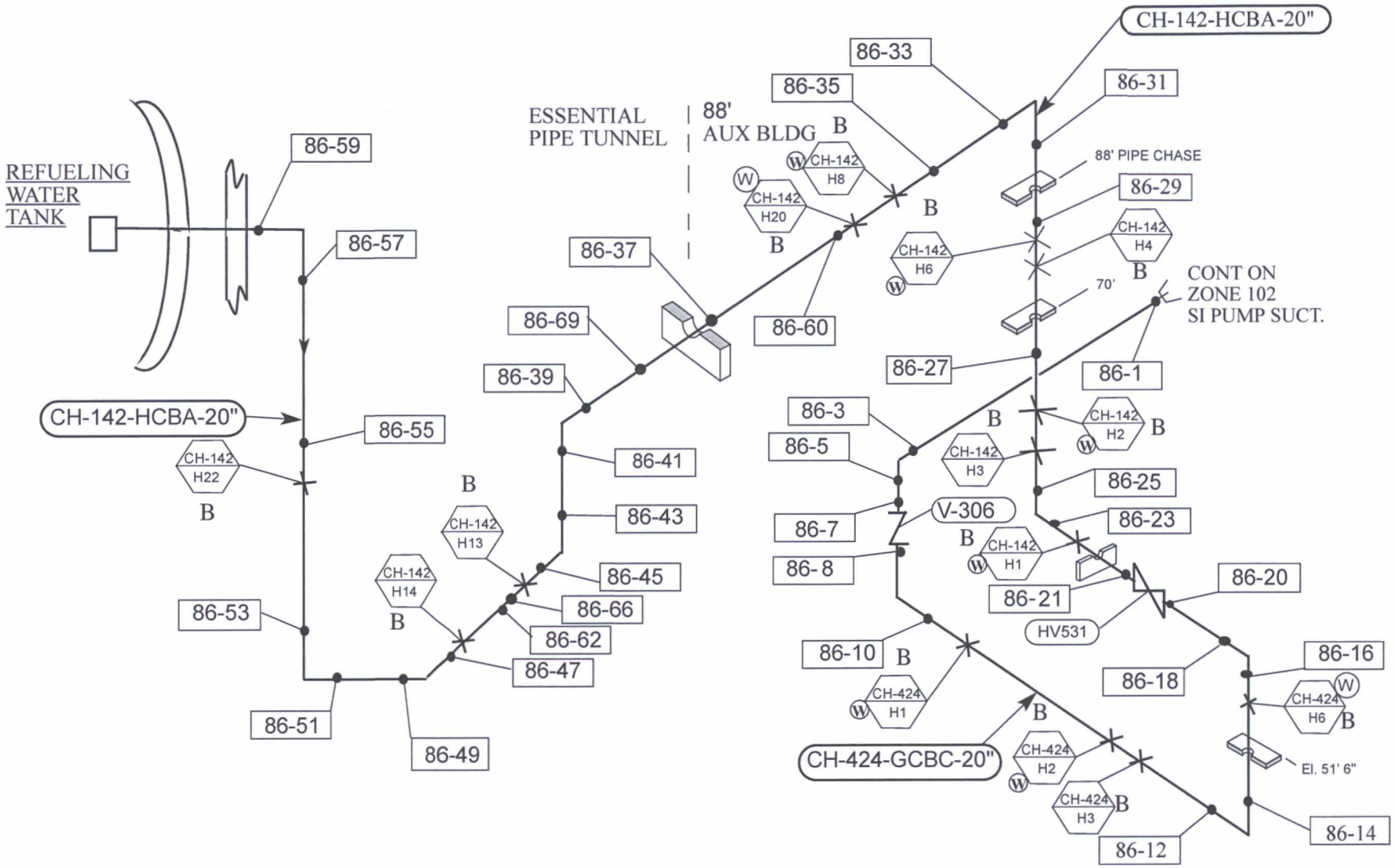
REFERENCE DRAWINGS
01-P-SIF-105
01-P-SIF-151
13-P-ZCG-112

| UNIT 1 | ZONE 101 |
|---|---|
| CONTAINMENT LPSI TRAIN "B" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

| LINE# | DIA/SCH | FROM | TO |
|---|---|---|---|
| SI-307 | 24" x 0.562" | 84-12 | 84-37 |
| SI-307 | 20" x 0.375" | 84-39 | 84-46 |
| SI-9 | 18" x 0.312" | 80-14 | 84-87 |
| SI-8 | 10" x 0.250" | 84-51 | 84-84 |




| UNIT 1 | ZONE 102 |
|---|---|
| SAFETY INJECTION PUMPS TRAIN "A" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |



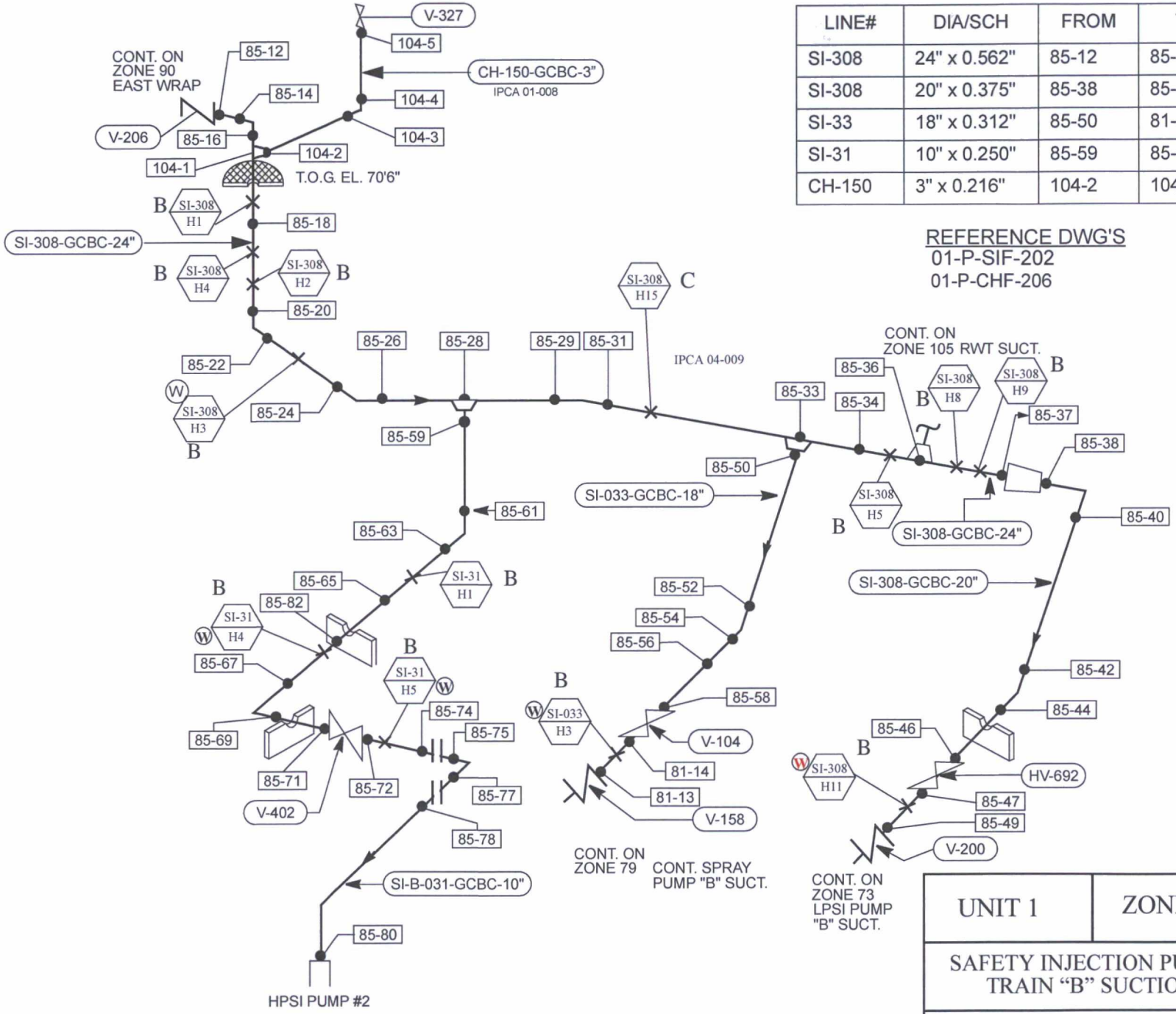

| LINE# | DIA/SCH | FROM | TO |
|---|---|---|---|
| CH- 424 | 20" x 0.375" | 86-1 | 86-20 |
| CH- 142 | 20" x 0.375" | 86-21 | 86-59 |

Reference DWG'S.

01-P-SIF-201
13-P-ZYA-925

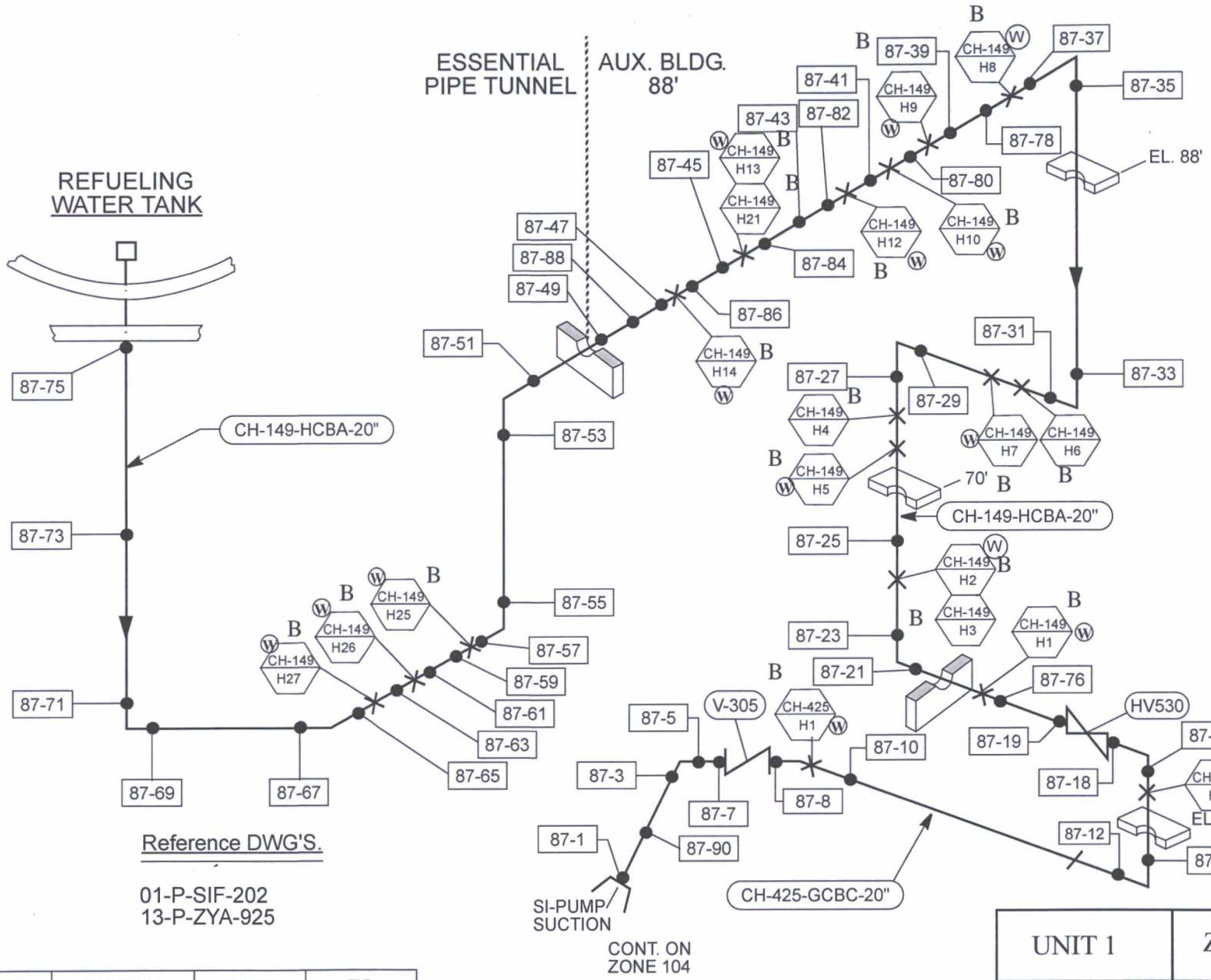
| UNIT 1 | ZONE 103 |
|---|---|
| REFUELING WATER TRAIN "A" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

| LINE# | DIA/SCH | FROM | TO |
|---|---|---|---|
| SI-308 | 24" x 0.562" | 85-12 | 85-37 |
| SI-308 | 20" x 0.375" | 85-38 | 85-49 |
| SI-33 | 18" x 0.312" | 85-50 | 81-13 |
| SI-31 | 10" x 0.250" | 85-59 | 85-80 |
| CH-150 | 3" x 0.216" | 104-2 | 104-5 |




REFERENCE DWG'S
01-P-SIF-202
01-P-CHF-206

| UNIT 1 | ZONE 104 |
|---|---|
| SAFETY INJECTION PUMPS TRAIN "B" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |



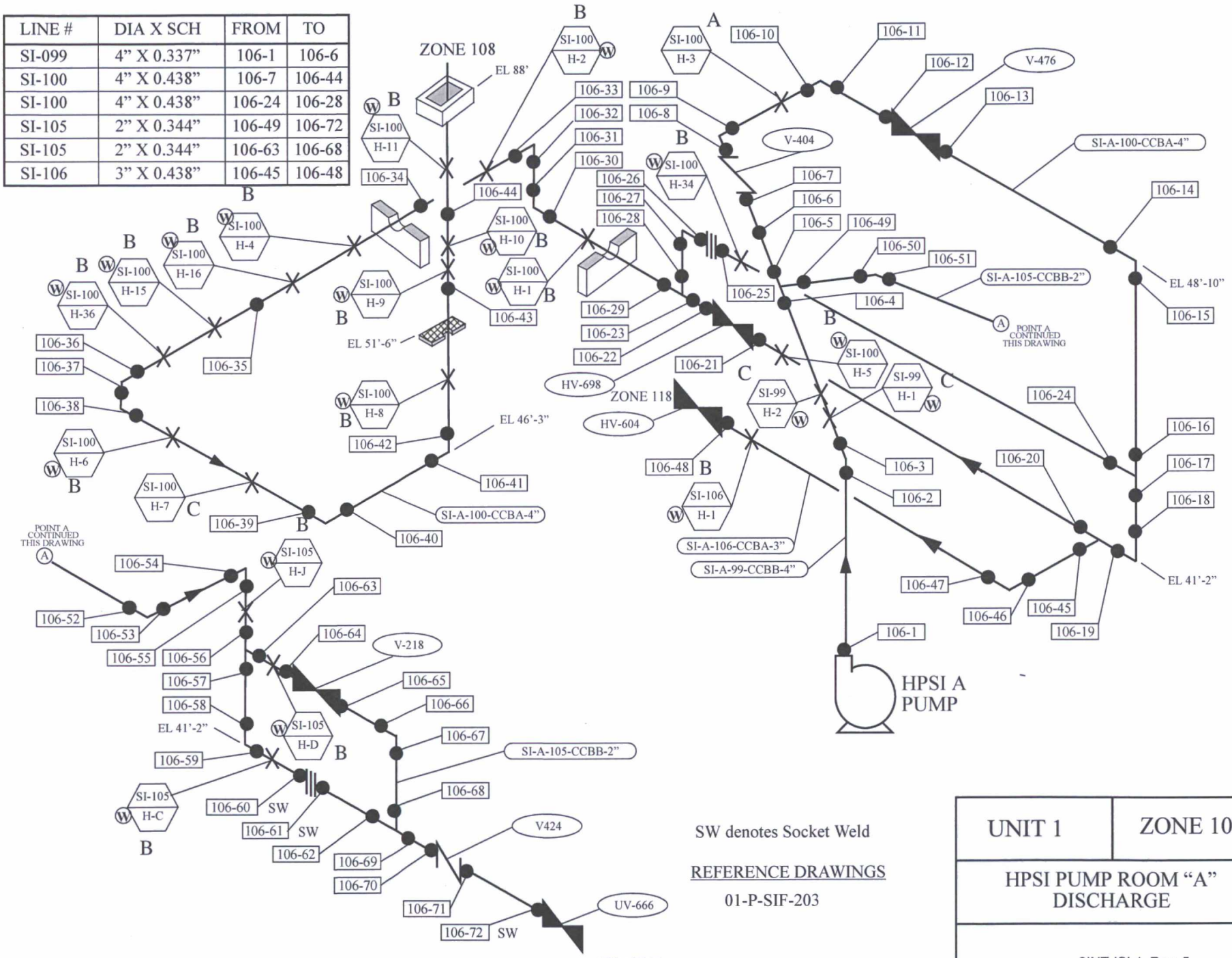

Reference DWG'S.

01-P-SIF-202
13-P-ZYA-925

| LINE# | DIA/SCH | FROM | TO |
|---|---|---|---|
| CH-425 | 20" x 0.375" | 87-1 | 87-18 |
| CH-149 | 20" x 0.375" | 87-19 | 87-75 |

| UNIT 1 | ZONE 105 |
|---|---|
| REFUELING WATER TRAIN "B" SUCTION | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-099 | 4" X 0.337" | 106-1 | 106-6 |
| SI-100 | 4" X 0.438" | 106-7 | 106-44 |
| SI-100 | 4" X 0.438" | 106-24 | 106-28 |
| SI-105 | 2" X 0.344" | 106-49 | 106-72 |
| SI-105 | 2" X 0.344" | 106-63 | 106-68 |
| SI-106 | 3" X 0.438" | 106-45 | 106-48 |



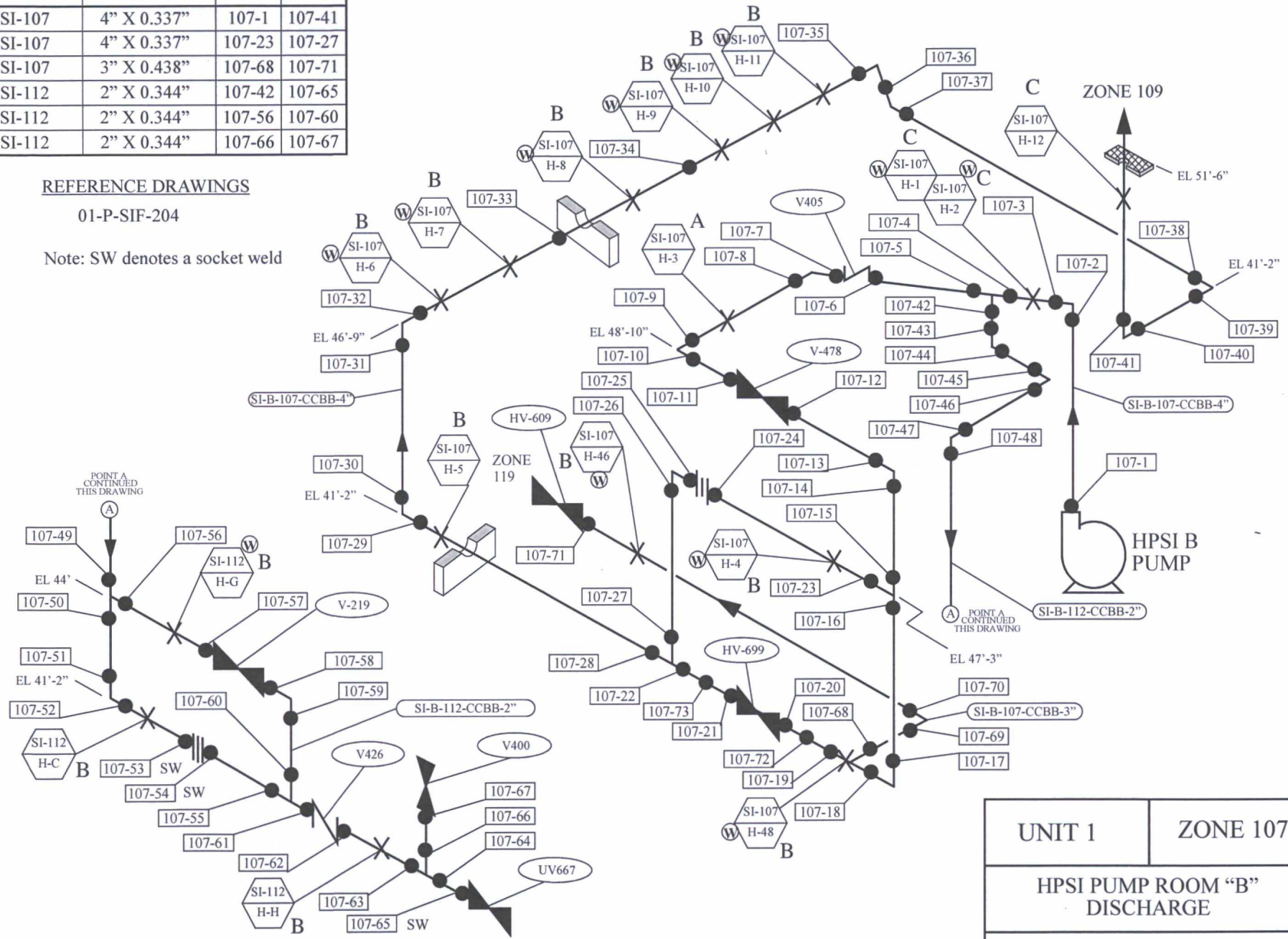

| UNIT 1 | ZONE 106 |
|---|---|
| HPSI PUMP ROOM "A" DISCHARGE | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-107 | 4" X 0.337" | 107-1 | 107-41 |
| SI-107 | 4" X 0.337" | 107-23 | 107-27 |
| SI-107 | 3" X 0.438" | 107-68 | 107-71 |
| SI-112 | 2" X 0.344" | 107-42 | 107-65 |
| SI-112 | 2" X 0.344" | 107-56 | 107-60 |
| SI-112 | 2" X 0.344" | 107-66 | 107-67 |

REFERENCE DRAWINGS

01-P-SIF-204

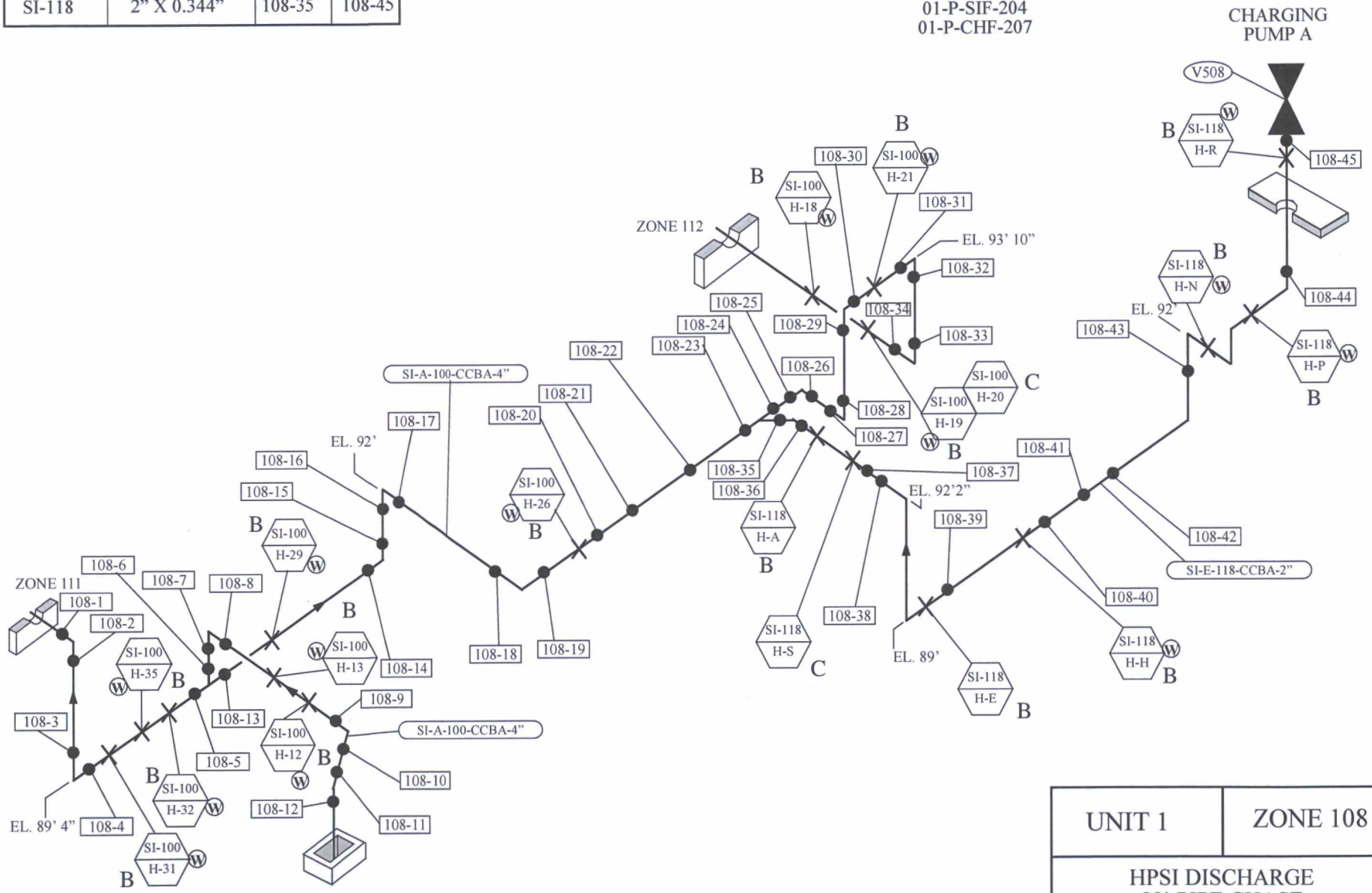
Note: SW denotes a socket weld




| UNIT 1 | ZONE 107 |
|---|---|
| HPSI PUMP ROOM "B" DISCHARGE | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-100 | 4" X 0.438" | 108-1 | 108-34 |
| SI-118 | 2" X 0.344" | 108-35 | 108-45 |

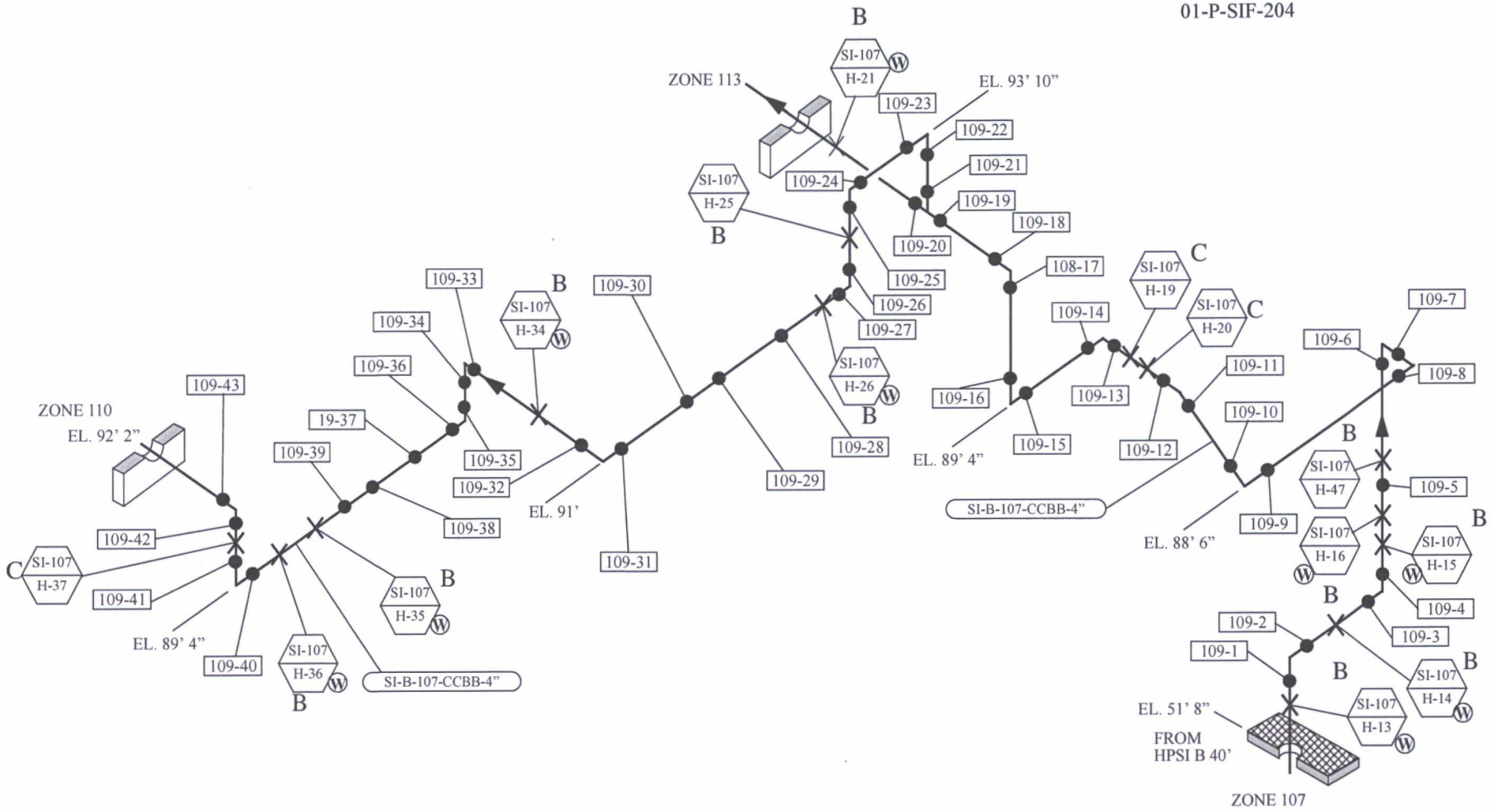
REFERENCE DRAWINGS
01-P-SIF-203
01-P-SIF-204
01-P-CHF-207




| UNIT 1 | ZONE 108 |
|---|---|
| HPSI DISCHARGE<br>88' PIPE CHASE | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-107 | 4" X 0.337" | 109-1 | 109-43 |

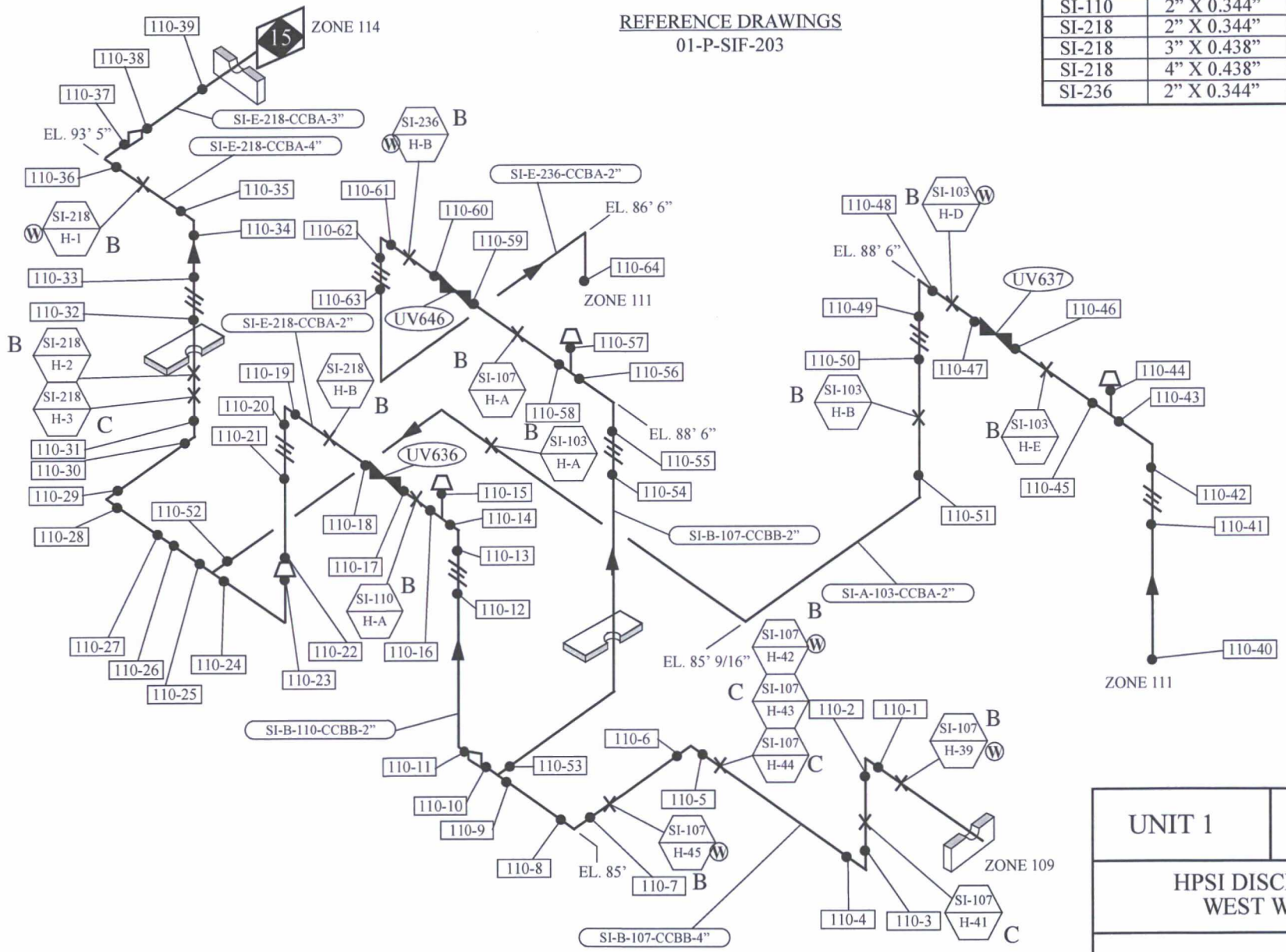
REFERENCE DRAWINGS
01-P-SIF-203
01-P-SIF-204




| UNIT 1 | ZONE 109 |
|---|---|
| HPSI DISCHARGE 88' PIPE CHASE | |
| | 3INT-ISI-1, Rev. 5 |

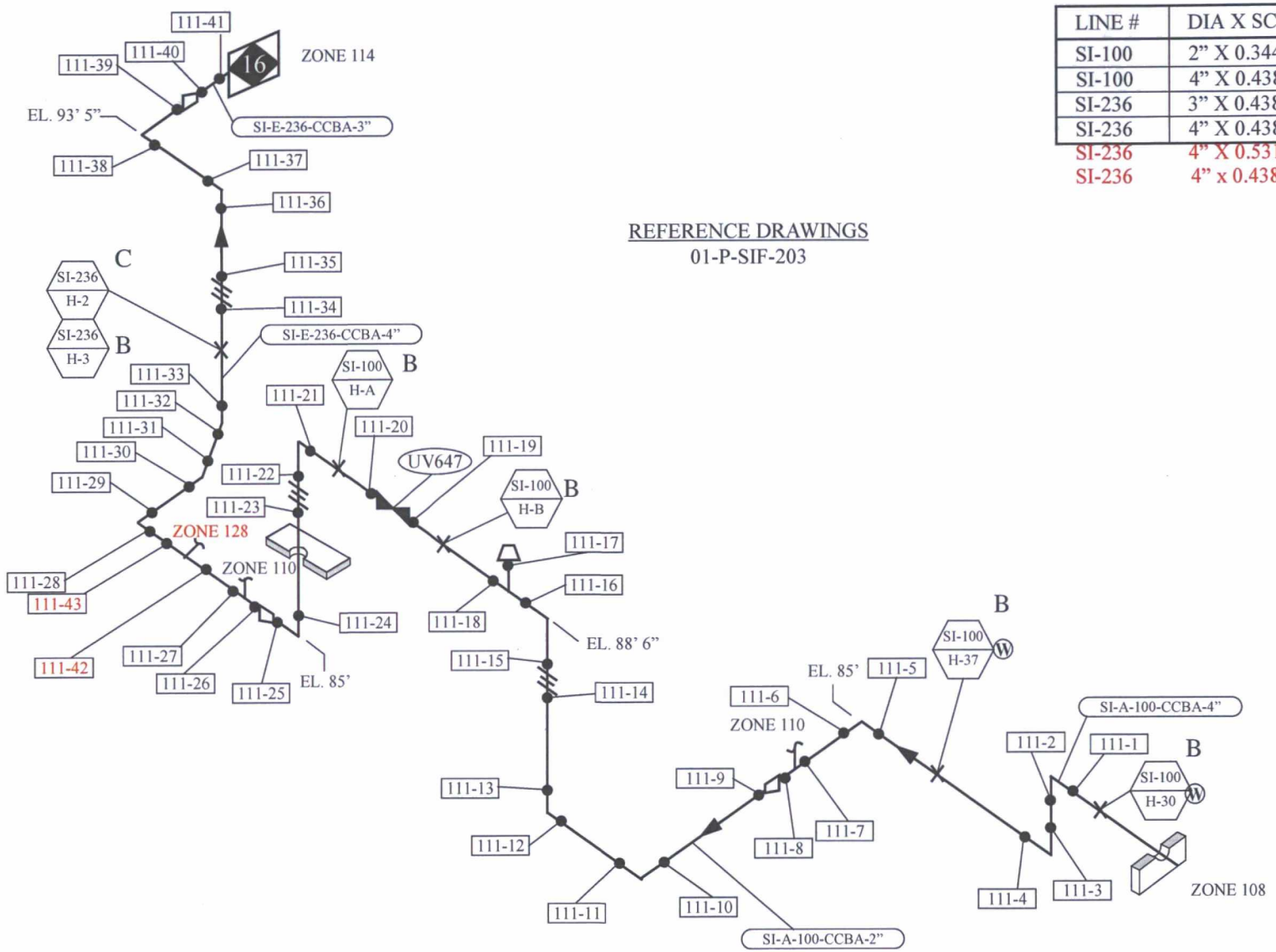
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-103 | 2" X 0.344" | 110-40 | 110-52 |
| SI-107 | 2" X 0.344" | 110-53 | 110-59 |
| SI-107 | 4" X 0.337" | 110-1 | 110-10 |
| SI-110 | 2" X 0.344" | 110-11 | 110-17 |
| SI-218 | 2" X 0.344" | 110-18 | 110-22 |
| SI-218 | 3" X 0.438" | 110-38 | 110-39 |
| SI-218 | 4" X 0.438" | 110-23 | 110-37 |
| SI-236 | 2" X 0.344" | 110-60 | 110-64 |

REFERENCE DRAWINGS
01-P-SIF-203




| UNIT 1 | ZONE 110 |
|---|---|
| HPSI DISCHARGE WEST WRAP | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-100 | 2" X 0.344" | 111-9 | 111-25 |
| SI-100 | 4" X 0.438" | 111-1 | 111-8 |
| SI-236 | 3" X 0.438" | 111-40 | 111-41 |
| SI-236 | 4" X 0.438" | 111-26 | 111-27 |
| SI-236 | 4" X 0.531" | 111-42 | 111-43 |
| SI-236 | 4" x 0.438" | 111-28 | 111-39 |

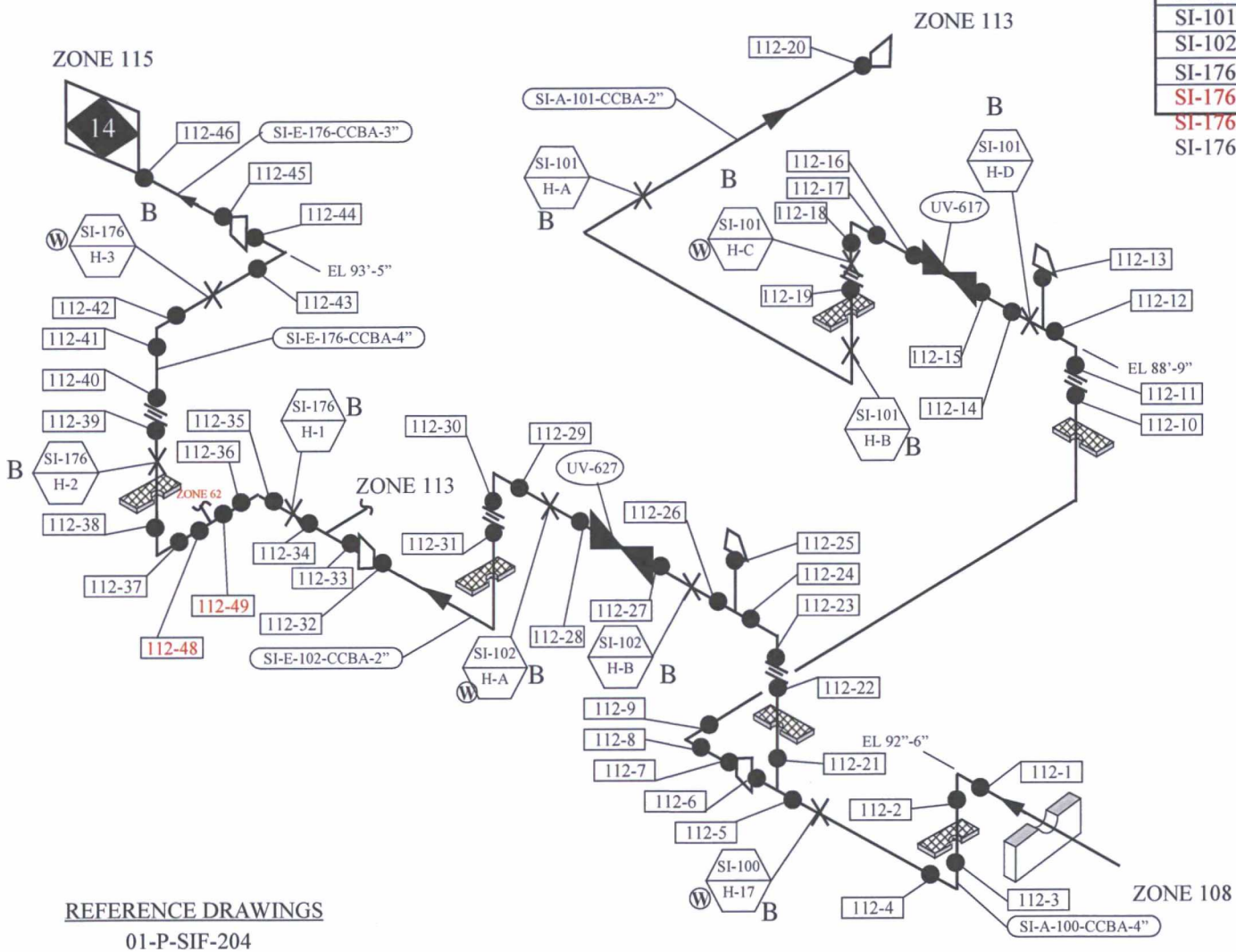



REFERENCE DRAWINGS
01-P-SIF-203

R18 Fukushima; EDC 2013-00537; Welds 42, 43; WO 4418123

| UNIT 1 | ZONE 111 |
|---|---|
| HPSI DISCHARGE WEST WRAP | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-100 | 4" X 0.438" | 112-1 | 112-6 |
| SI-101 | 2" X 0.344" | 112-7 | 112-20 |
| SI-102 | 2" X 0.344" | 112-21 | 112-32 |
| SI-176 | 4" X 0.438" | 112-33 | 112-36 |
| SI-176 | 4" X 0.531" | 112-48 | 112-49 |
| SI-176 | 4" X 0.438" | 112-37 | 112-44 |
| SI-176 | 3" X 0.438" | 112-45 | 112-46 |



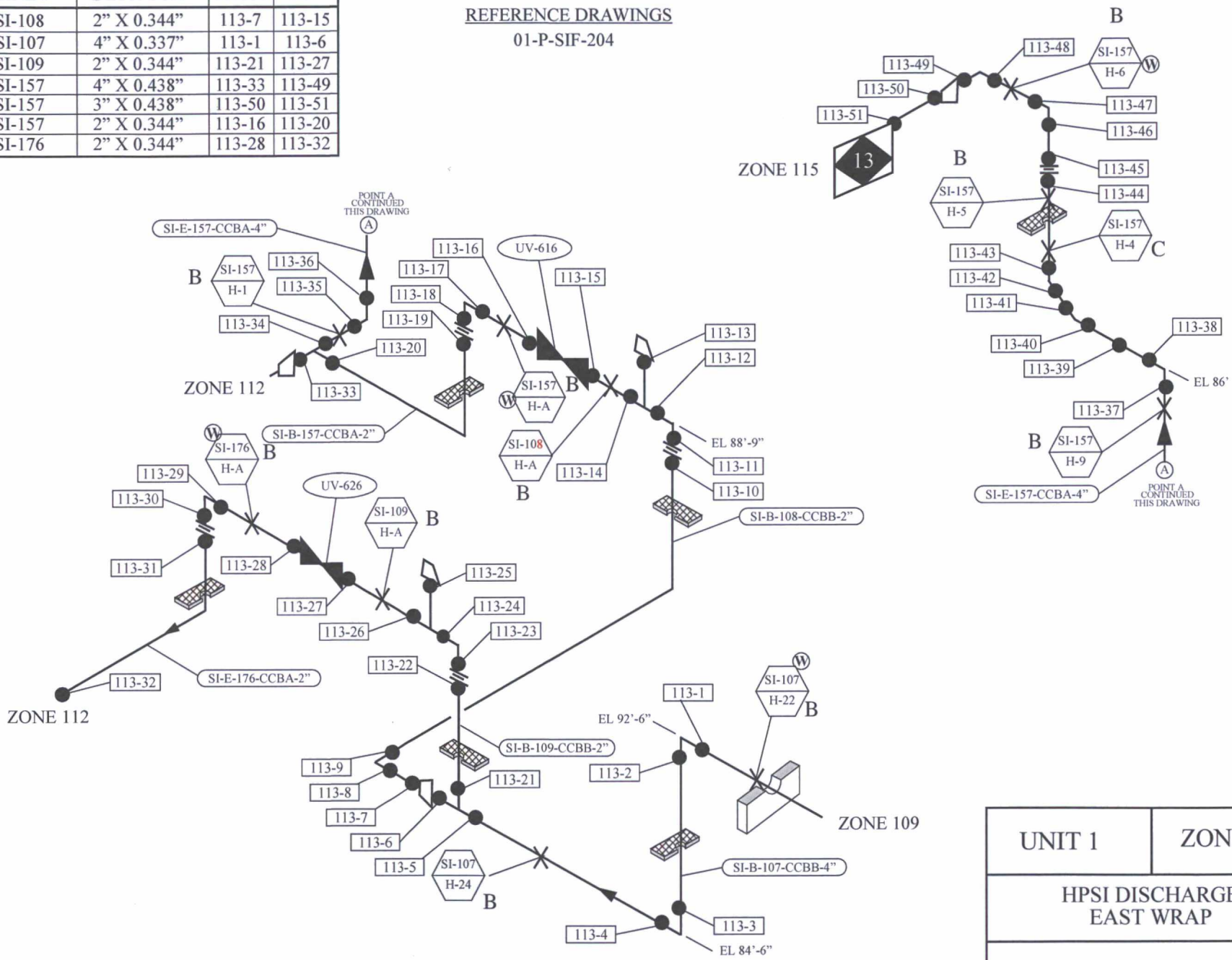

REFERENCE DRAWINGS
01-P-SIF-204

R18 Fukushima; EDC 2013-00538; Welds 48, 49; WO 4418147

| UNIT 1 | ZONE 112 |
|---|---|
| HPSI DISCHARGE EAST WRAP | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-108 | 2" X 0.344" | 113-7 | 113-15 |
| SI-107 | 4" X 0.337" | 113-1 | 113-6 |
| SI-109 | 2" X 0.344" | 113-21 | 113-27 |
| SI-157 | 4" X 0.438" | 113-33 | 113-49 |
| SI-157 | 3" X 0.438" | 113-50 | 113-51 |
| SI-157 | 2" X 0.344" | 113-16 | 113-20 |
| SI-176 | 2" X 0.344" | 113-28 | 113-32 |

REFERENCE DRAWINGS
01-P-SIF-204

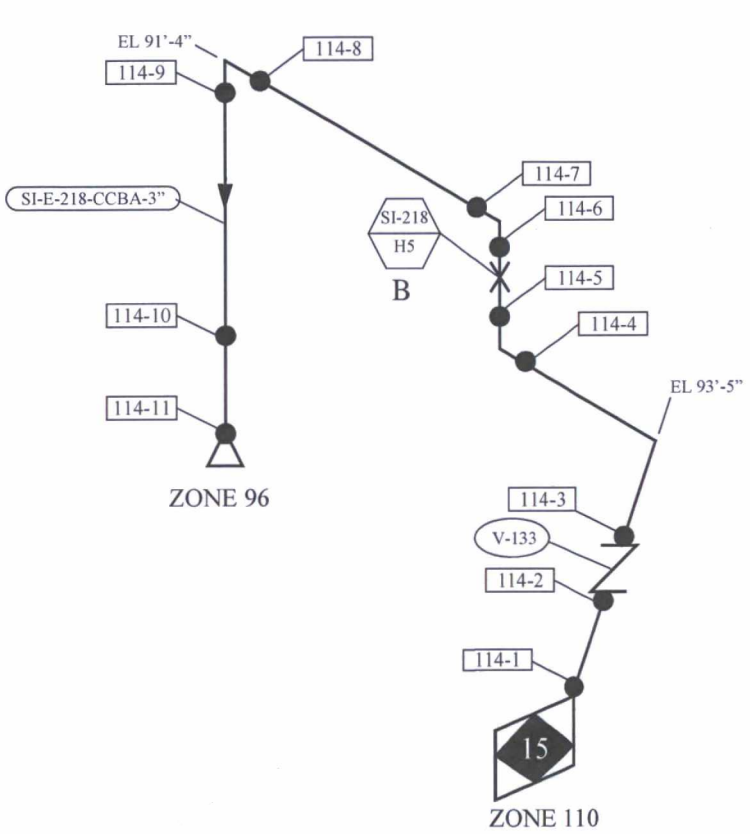


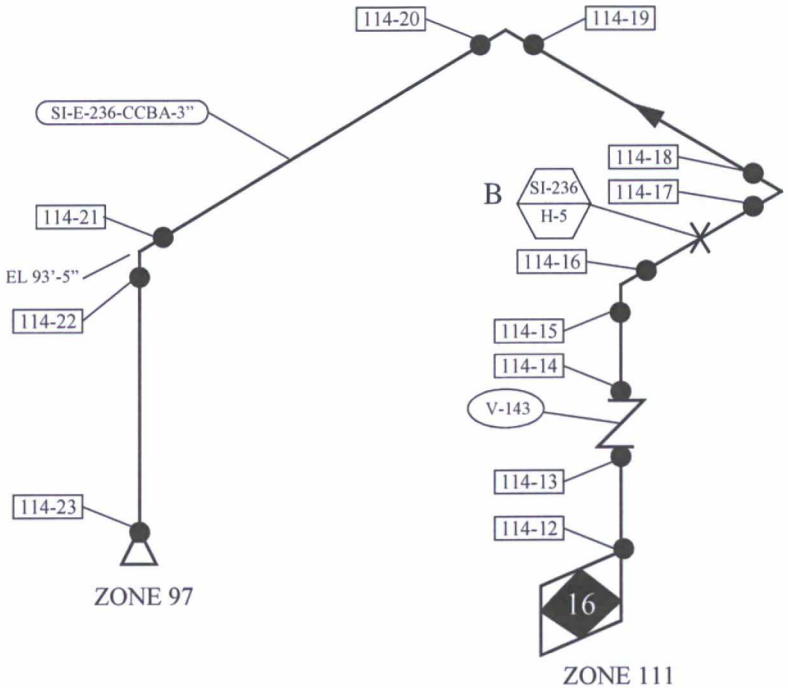

| UNIT 1 | ZONE 113 |
|---|---|
| HPSI DISCHARGE EAST WRAP | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-218 | 3" X 0.438" | 114-1 | 114-11 |
| SI-236 | 3" X 0.438" | 114-12 | 114-23 |

REFERENCE DRAWINGS

01-P-SIF-103



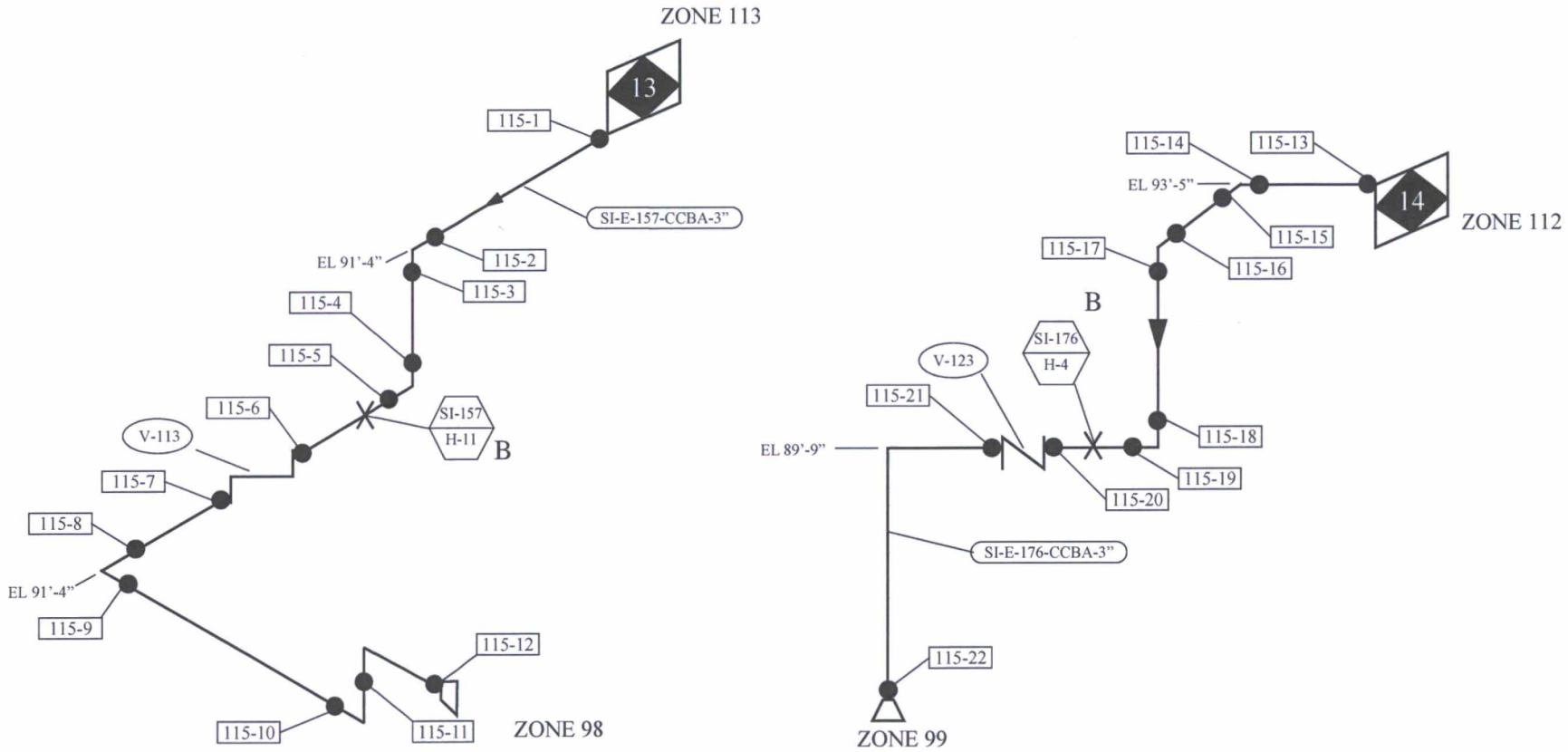




| UNIT 1 | ZONE 114 |
|---|---|
| CONTAINMENT HPSI HEADER LOOP 1A & 1B | |
| | 3INT-ISI-1, Rev. 5 |

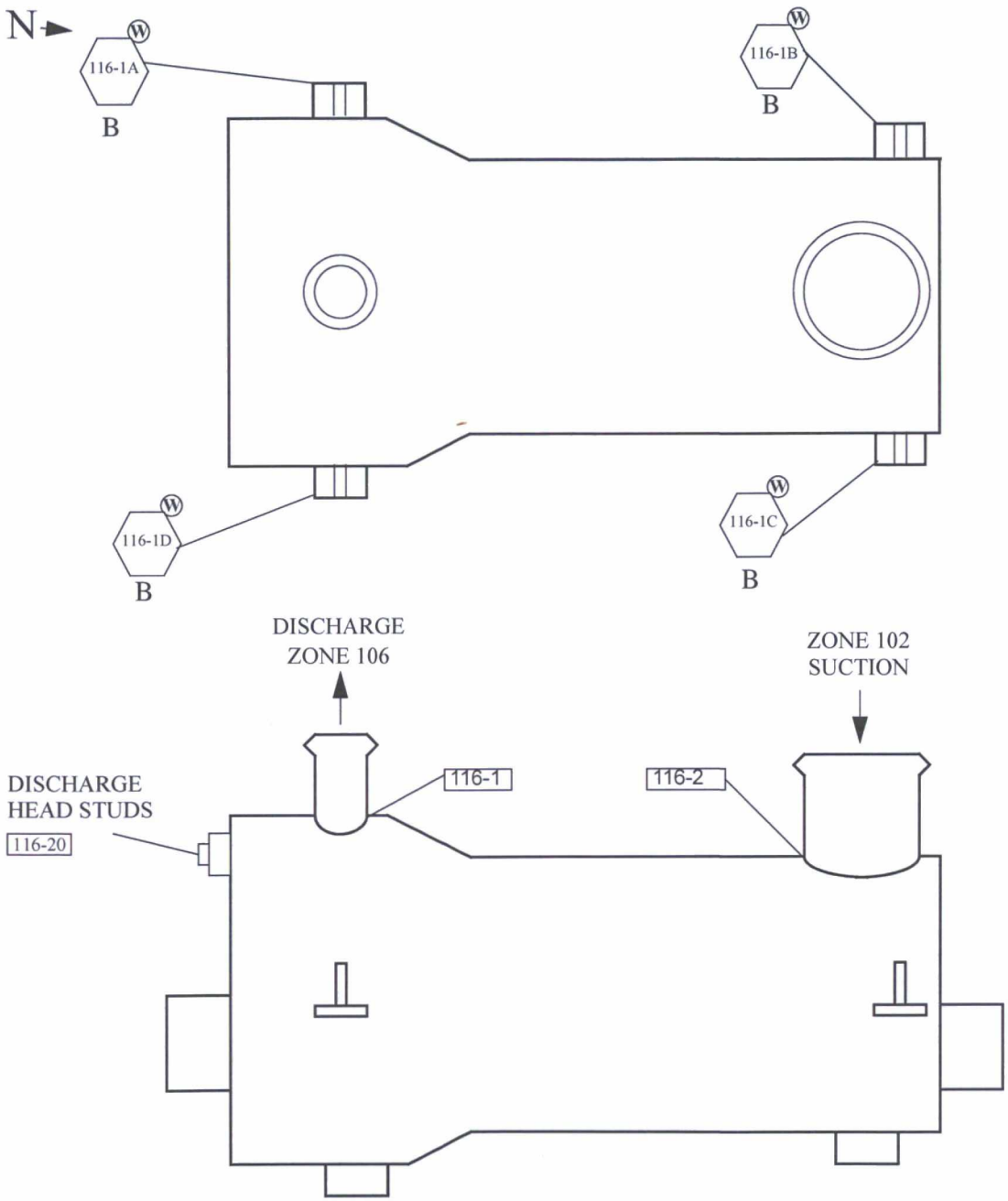
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-157 | 3" X 0.438" | 115-1 | 115-12 |
| SI-176 | 3" X 0.438" | 115-13 | 115-22 |

REFERENCE DRAWINGS

01-P-SIF-136




| UNIT 1 | ZONE 115 |
|---|---|
| CONTAINMENT<br>HPSI HEADER LOOP 2A & 2B | |
| | 3INT-ISI-1, Rev. 5 |




1) TAG NUMBER: 1MSIAP02

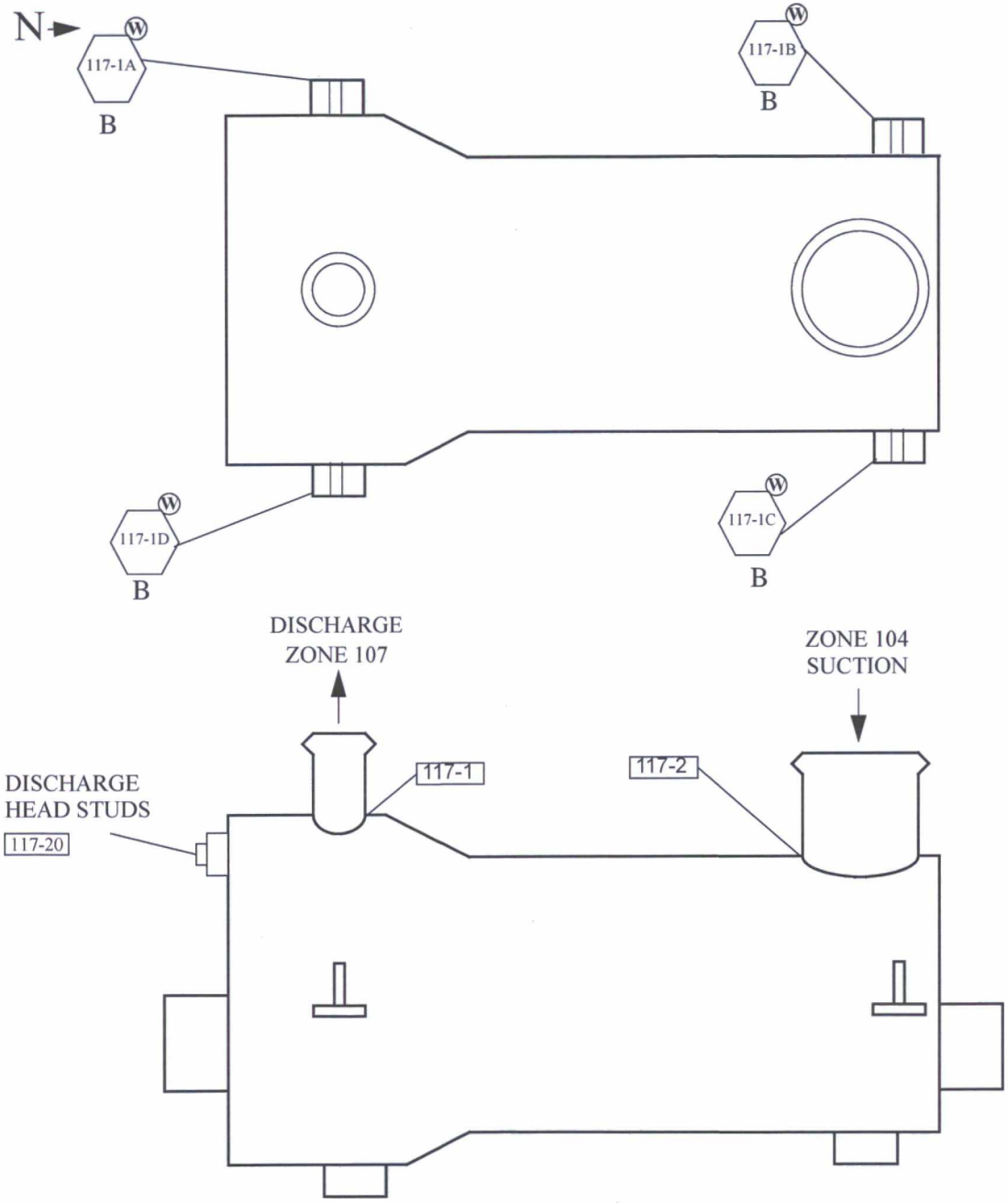
2) SERIAL NUMBER: INGERSOL RAND
S/N 0776-14

3) DISCHARGE HEAD STUDS 16@ 2.25"
DIA. X 10.88"

REFERENCE DRAWINGS

01-P-SIF-201
01-P-SIF-203

| UNIT 1 | ZONE 116 |
|---|---|
| HPSI PUMP "A" | |
| | 3INT-ISI-1, Rev. 5 |




1) TAG NUMBER: 1MSIBP02

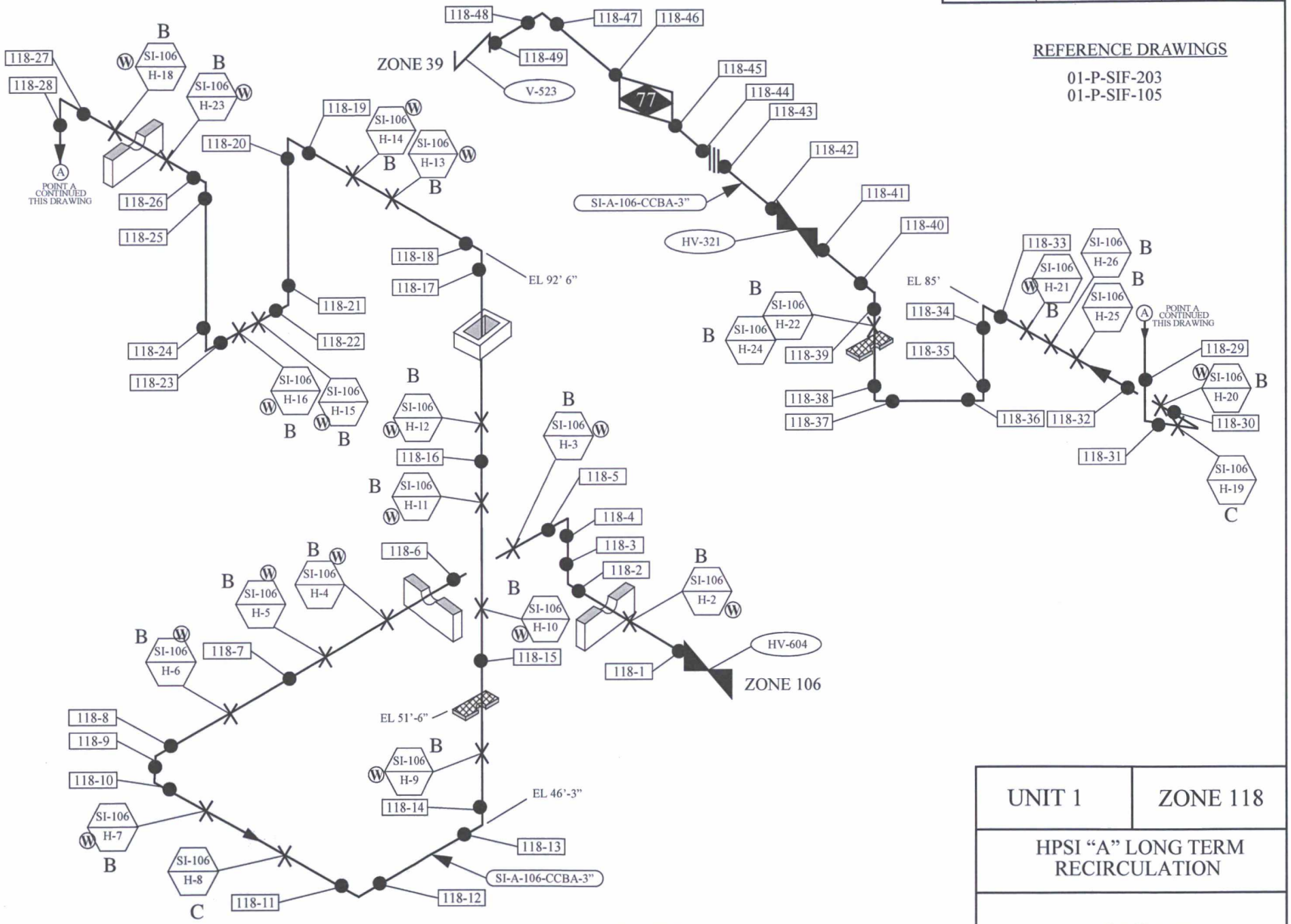
2) SERIAL NUMBER: INGERSOL RAND
S/N 0776-15

3) DISCHARGE HEAD STUDS 16@ 2.25"
DIA. X 10.88"

REFERENCE DRAWINGS
01-P-SIF-201
01-P-SIF-203

| UNIT 1 | ZONE 117 |
|---|---|
| HPSI PUMP "B' | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-106 | 3" X 0.438" | 118-1 | 118-49 |

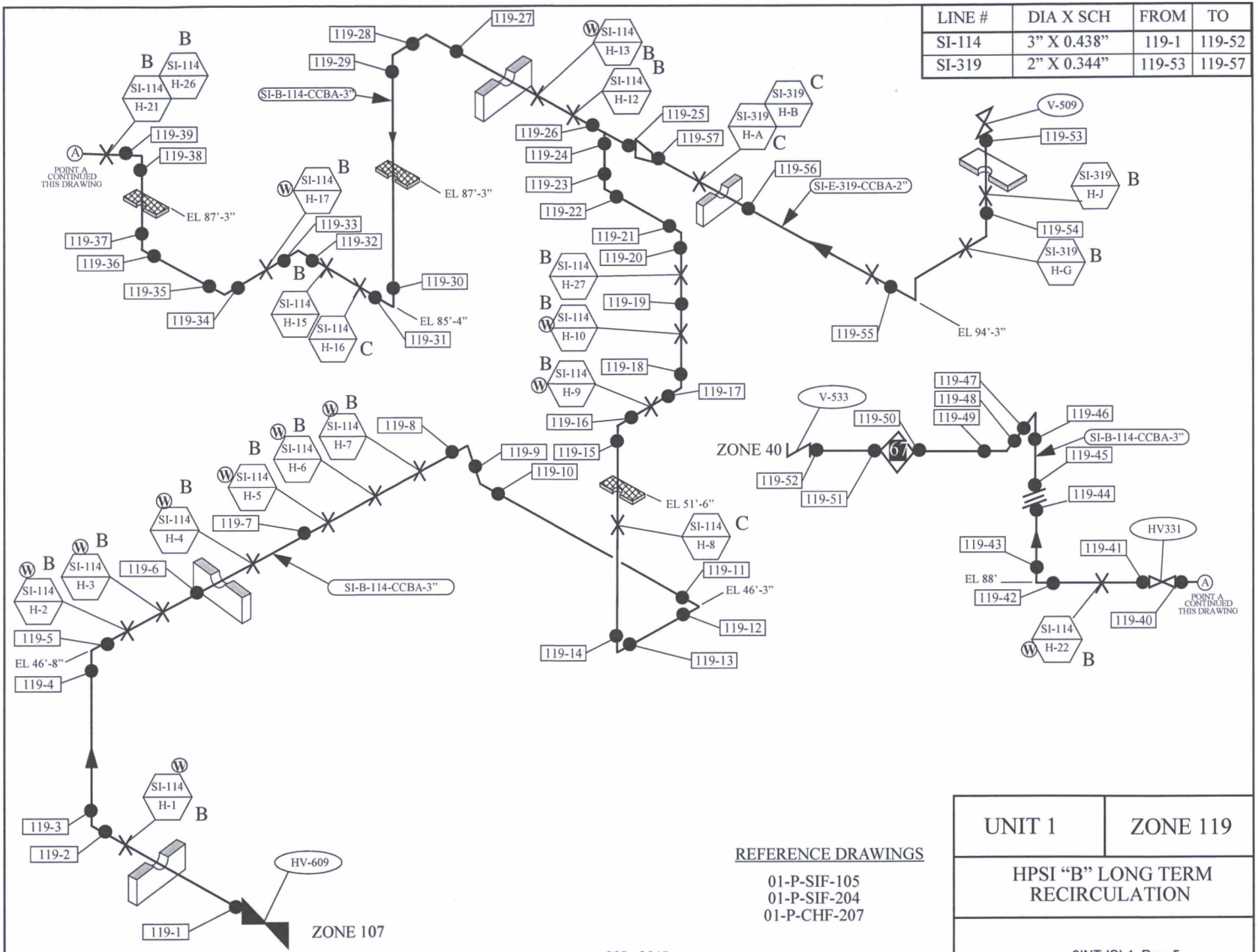



REFERENCE DRAWINGS

01-P-SIF-203
01-P-SIF-105

| UNIT 1 | ZONE 118 |
|---|---|
| HPSI "A" LONG TERM RECIRCULATION | |
| | 3INT-ISI-1, Rev. 5 |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-114 | 3" X 0.438" | 119-1 | 119-52 |
| SI-319 | 2" X 0.344" | 119-53 | 119-57 |

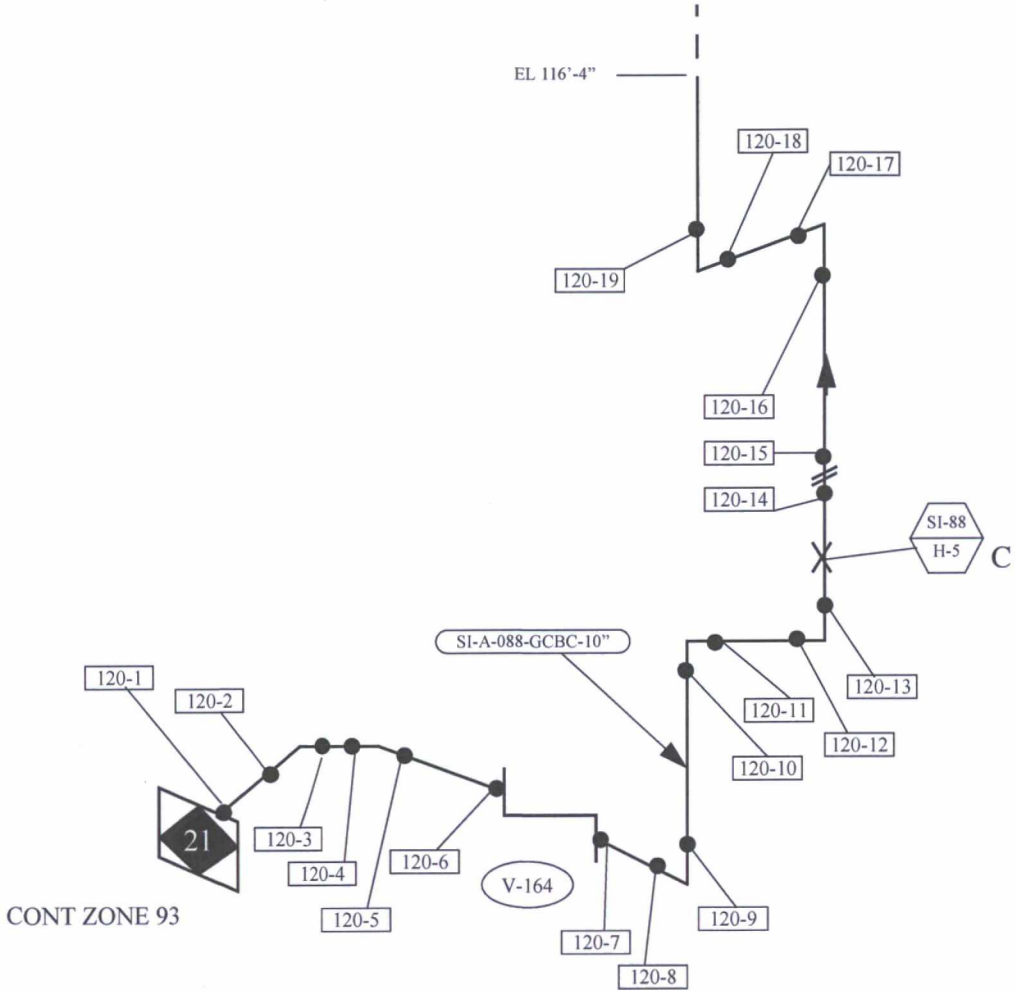



## REFERENCE DRAWINGS

01-P-SIF-105
01-P-SIF-204
01-P-CHF-207

| UNIT 1 | ZONE 119 |
|---|---|
| HPSI "B" LONG TERM RECIRCULATION | |
| | 3INT-ISI-1, Rev. 5 |

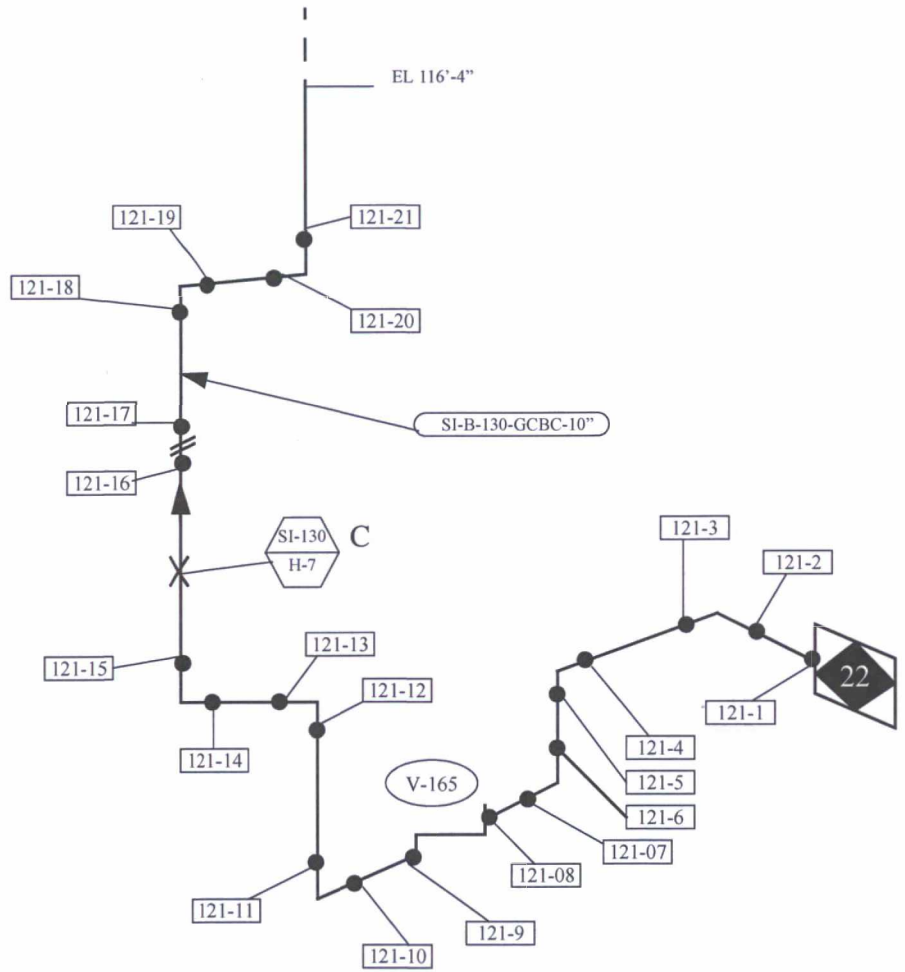
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-088 | 10" X 0.250" | 120-1 | 120-19 |




REFERENCE DRAWINGS
13-P-ZCG-105

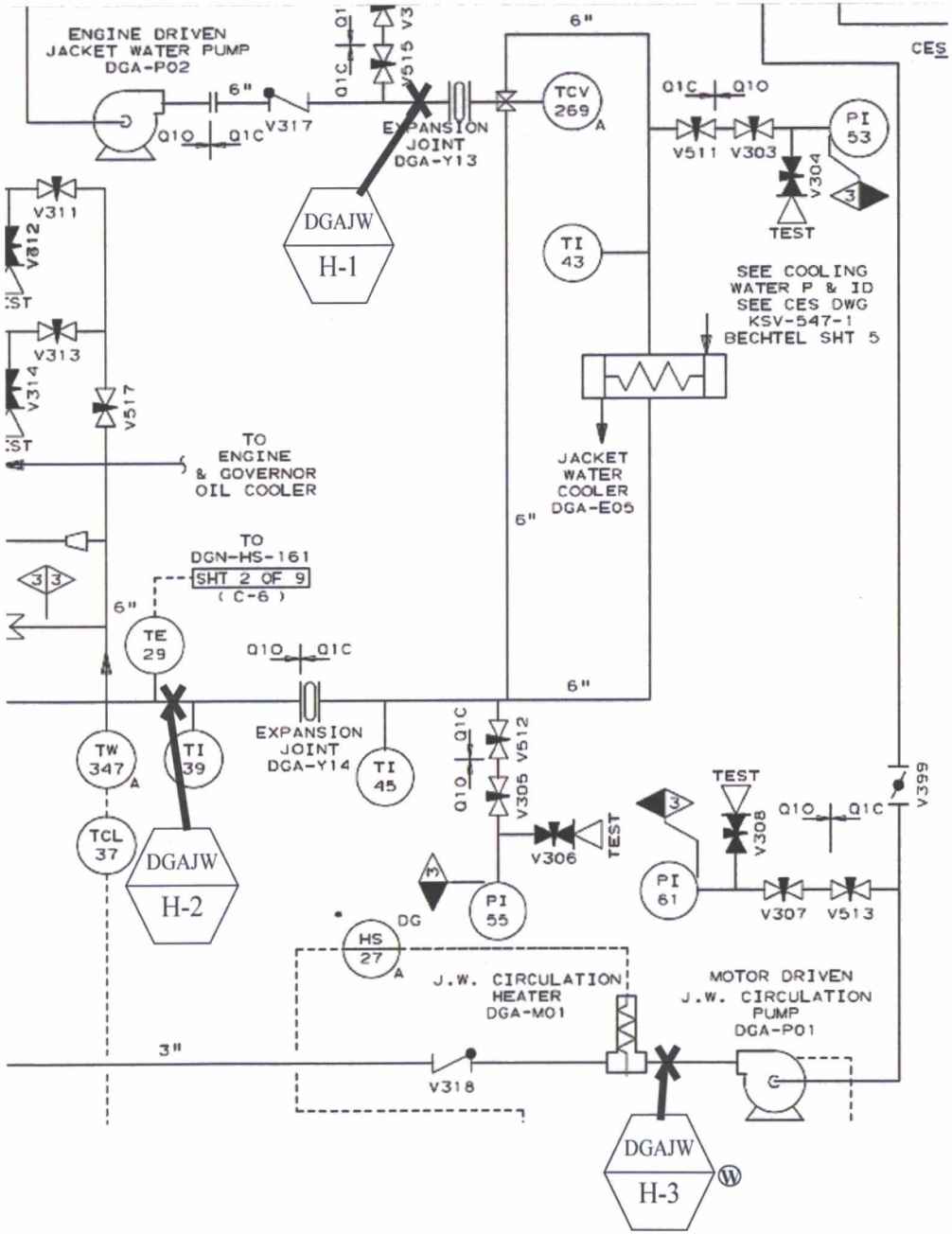
| UNIT 1 | ZONE 120 |
|---|---|
| CONTAINMENT SPRAY A | |

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-130 | 10" X 0.250" | 121-1 | 121-21 |



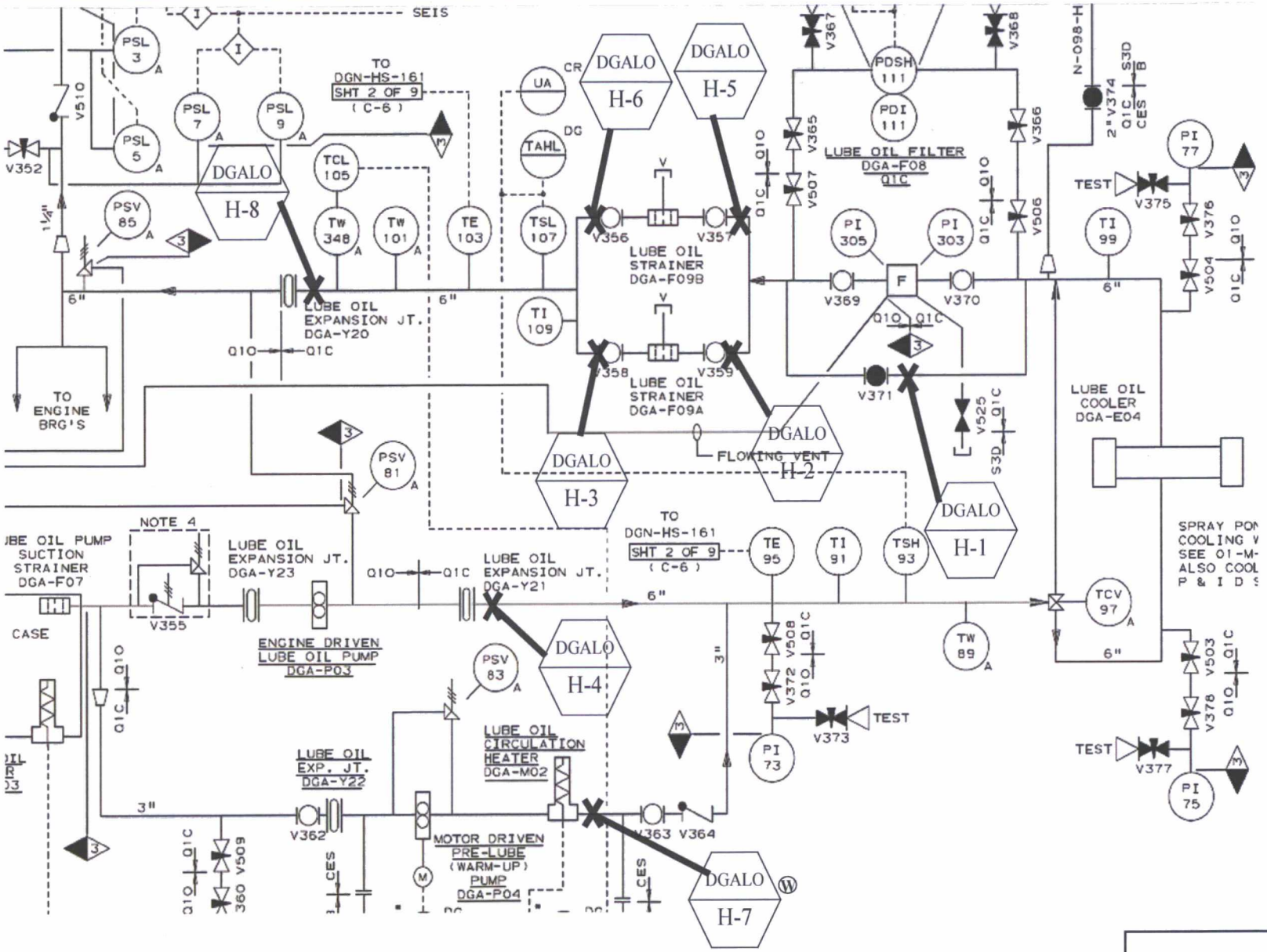

REFERENCE DRAWINGS
13-P-ZCG-105

| UNIT 1 | ZONE 121 |
|---|---|
| CONTAINMENT SPRAY B | |



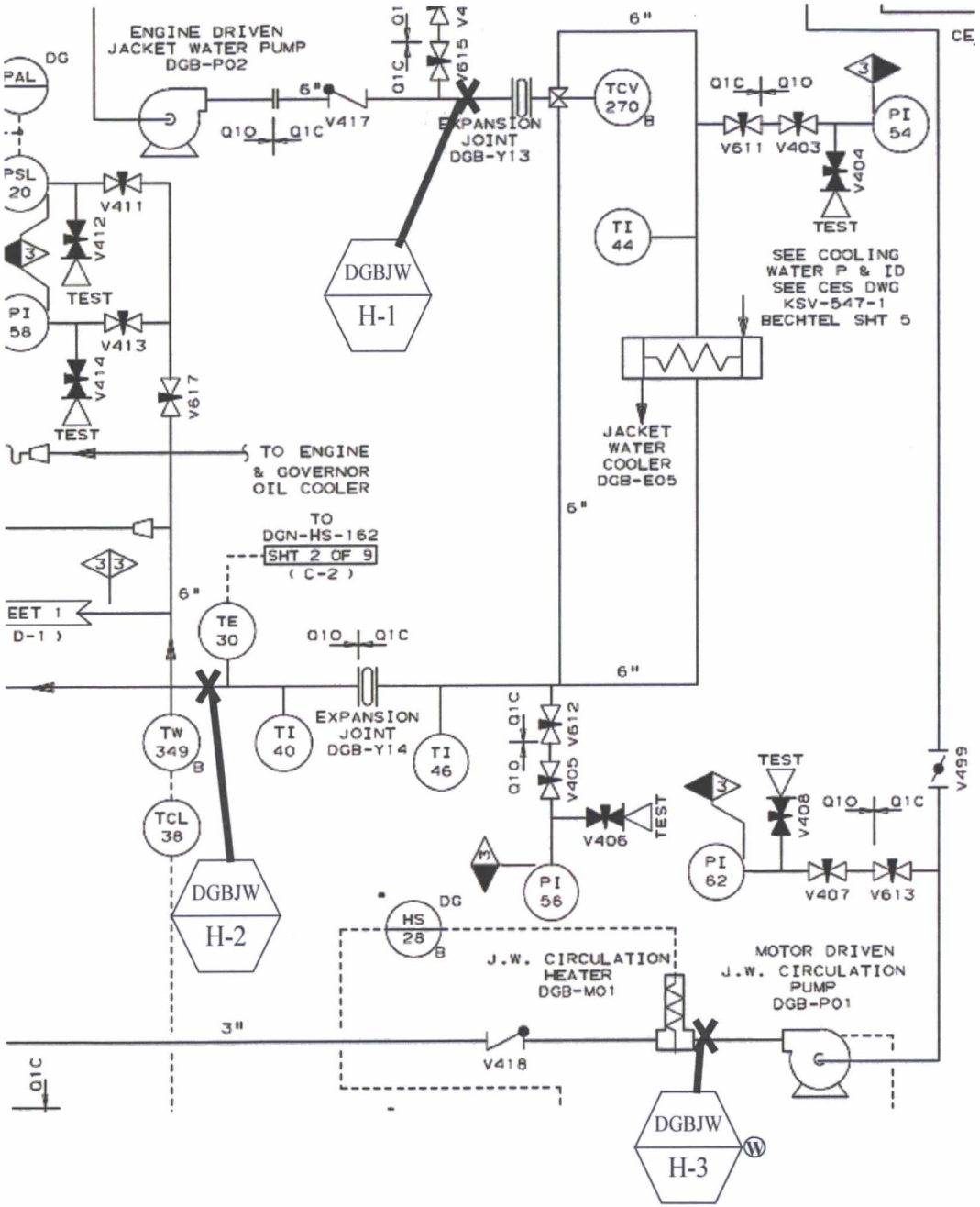

REFERENCE DRAWINGS
01-M-DGA-0001

| UNIT 1 | ZONE 122 |
|---|---|
| DG A JACKET WATER<br>CLASS 3 | |
| | 3INT-ISI-1, Rev. 5 |



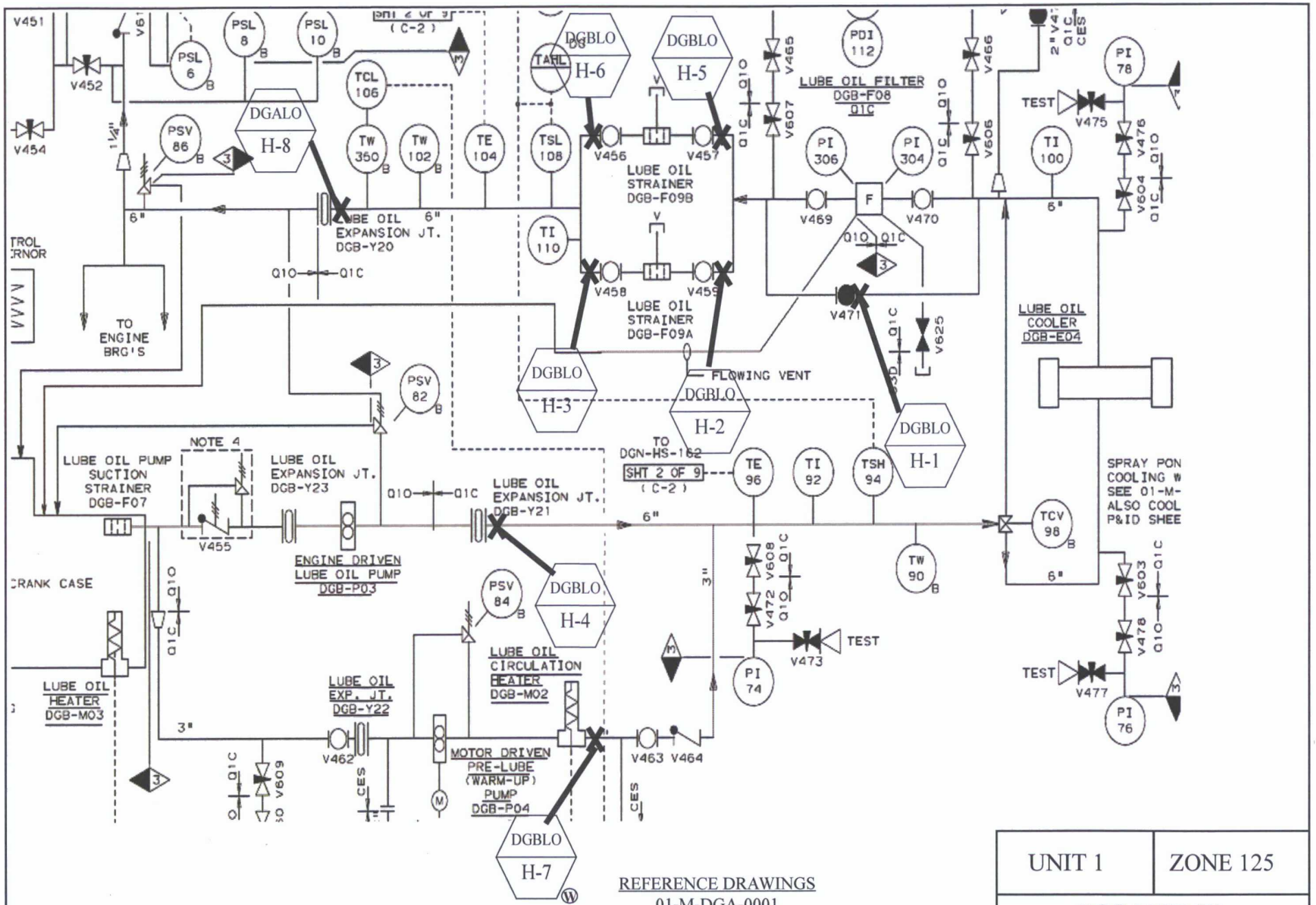

REFERENCE DRAWINGS
01-M-DGA-0001

| UNIT 1 | ZONE 123 |
|---|---|
| DG A LUBE OIL CLASS 3 | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS
01-M-DGA-0001

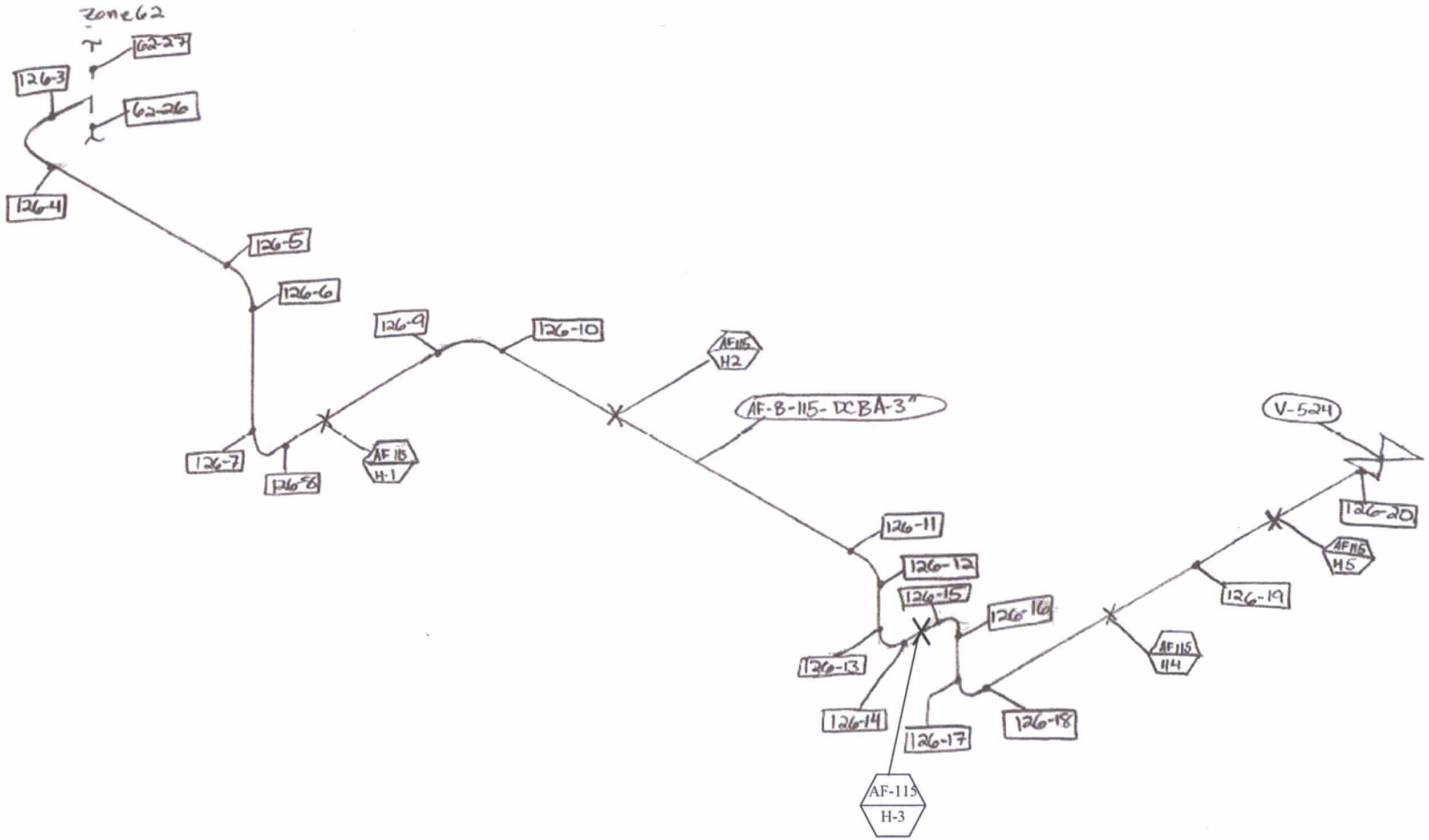
| UNIT 1 | ZONE 124 |
|---|---|
| DG B JACKET WATER<br>CLASS 3 | |
| | 3INT-ISI-1, Rev. 5 |




REFERENCE DRAWINGS
01-M-DGA-0001

| UNIT 1 | ZONE 125 |
|---|---|
| DG B LUBE OIL CLASS 3 | |
| | 3INT-ISI-1, Rev. 5 |

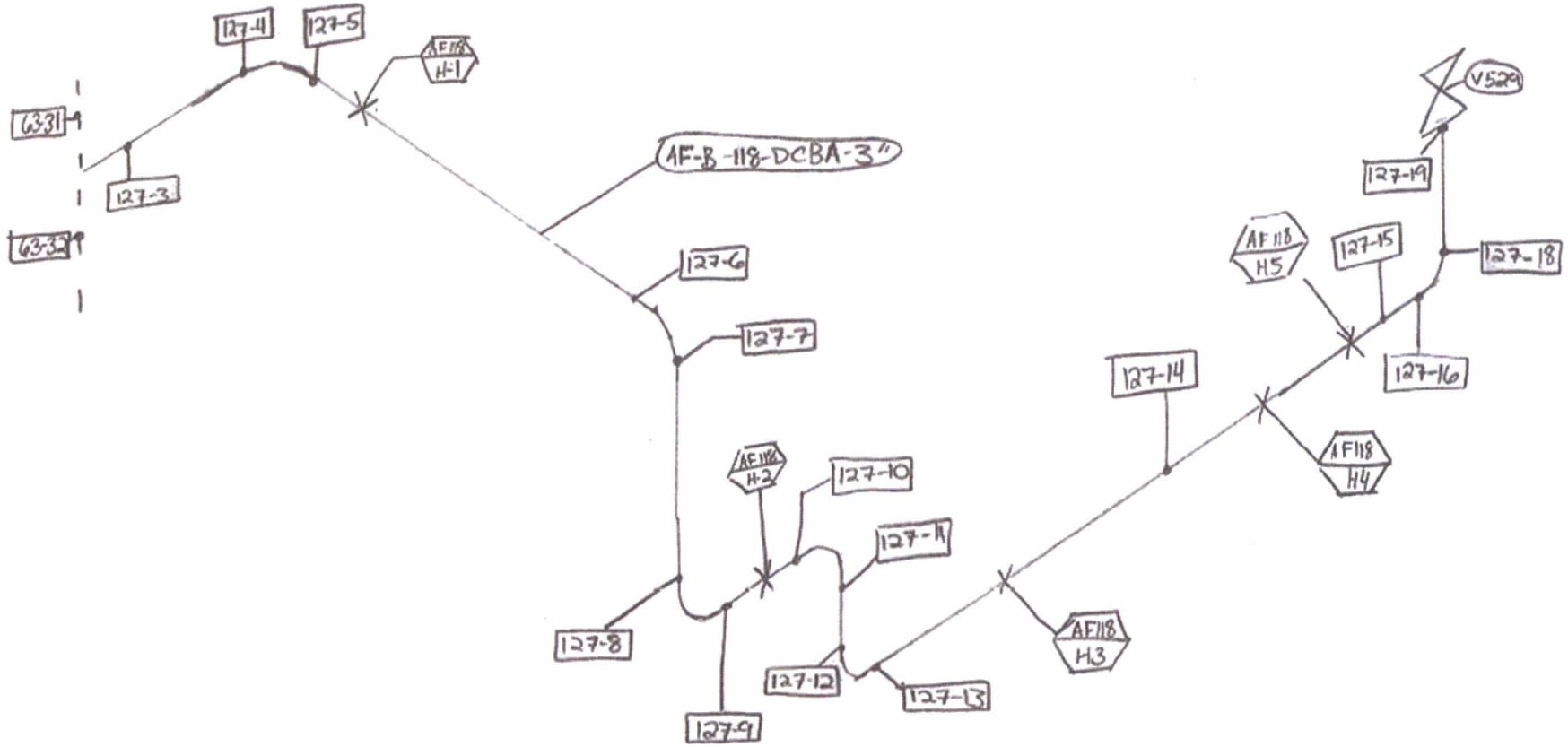
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| AF-115 | 3" X 0.438" | 126-3 | 126-20 |




| UNIT 1 | ZONE 126 |
|---|---|
| AF Alternate Supply | |
| | 3INT-ISI-1, Rev. 5 |

R18 Fukushima; EDC 2013-00545; Entire Zone; WO 4418186

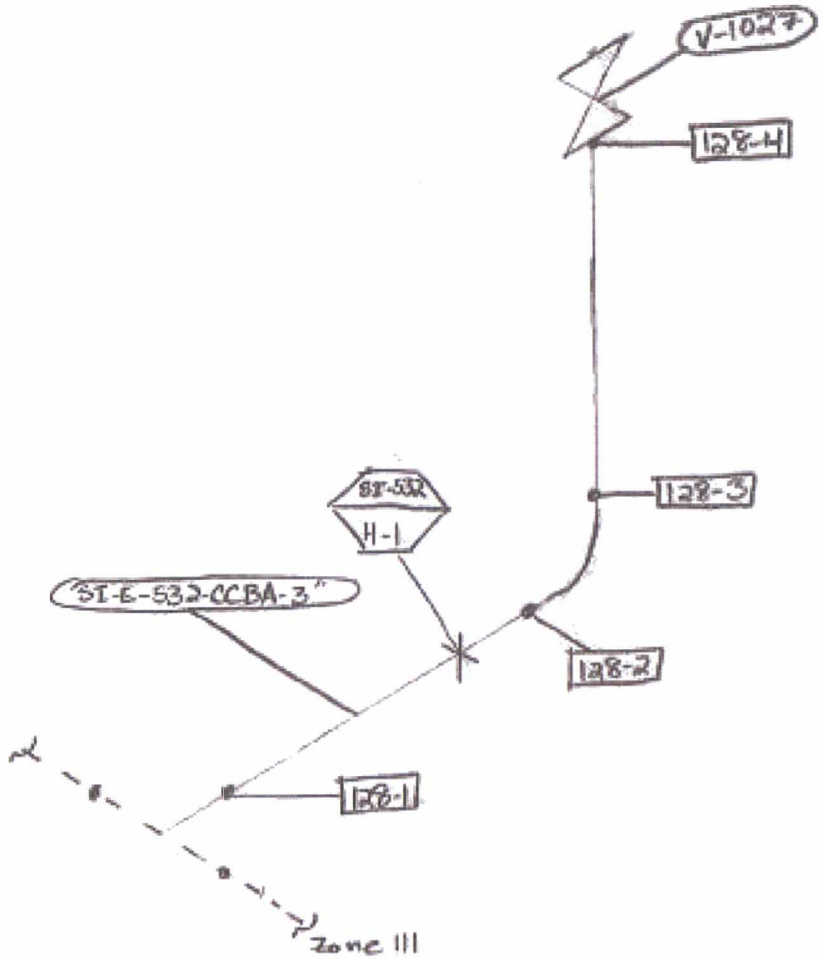
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| AF-118 | 3" X 0.438" | 127-3 | 127-18 |




| UNIT 1 | ZONE 127 |
|---|---|
| AF Primary | |
| | 3INT-ISI-1, Rev. 5 |

R18 Fukushima; EDC 2013-00544; Entire Zone; WO 4418212

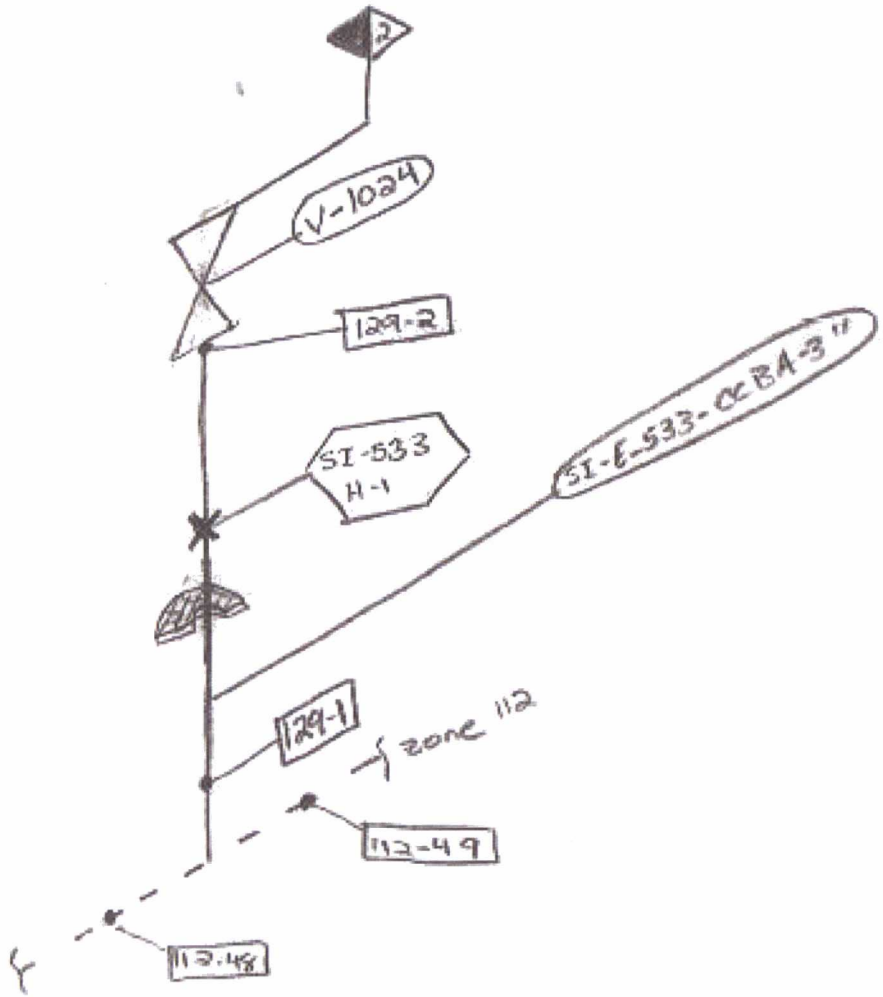
| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-532 | 3" X 0.438" | 128-1 | 128-2 |




| UNIT 1 | ZONE 128 |
|---|---|
| RCS Primary Discharge | |
| | 3INT-ISI-1, Rev. 5 |

R18 Fukushima; EDC 2013-00537; Entire Zone; WO 4418123

| LINE # | DIA X SCH | FROM | TO |
|---|---|---|---|
| SI-533 | 3" X 0.438" | 129-1 | 129-2 |




| UNIT 1 | ZONE 129 |
|---|---|
| RCS Alternative Discharge | |
| | 3INT-ISI-1, Rev. 5 |

**SECTION 11.0**
**Terms and Definitions**

| | |
|---|---|
| AHE: | Augmented High Energy |
| ANII: | Authorized Nuclear Inservice Inspector |
| APS: | Arizona Public Service Company, et al |
| ASME: | American Society of Mechanical Engineers |
| Aux: | Auxiliary |
| BWR: | Boiling Water Reactor |
| CE: | Combustion Engineering |
| CEDM: | Control Element Drive Mechanism |
| CFR: | Code of Federal Regulations |
| CH: | Charging |
| CHR: | Containment Heat Removal |
| Circ: | Circumferential |
| CL: | Cold Leg |
| CRD: | Control Rod Drive |
| CS: | Containment Spray |
| CSP: | Containment Spray Pump |
| DWG: | Drawing |
| ECCS: | Emergency Core Cooling System |
| FW: | Feedwater |
| HL: | Hot Leg |
| HPSI: | High Pressure Safety Injection |
| HV: | Hand Control Valve |
| Hx: | Heat Exchanger |
| ICI: | In Core Instrumentation |
| IEB: | Inspection and Enforcement Bulletin |
| IEIN: | Inspection and Enforcement Information Notice |
| Inj: | Injection |
| INPO: | Institute for Nuclear Power Operations |
| ISI: | Inservice Inspection |
| LPSI: | Low Pressure Safety Injection |
| MSSS: | Main Steam Support Structure |
| NDE: | Nondestructive Examination |
| NRC: | Nuclear Regulatory Commission |
| PDV: | Pressure Differential Valve |
| PSV: | Pressure Relief or Safety Valve |
| PWR: | Pressurized Water Reactor |
| PVNGS: | Palo Verde Nuclear Generating Station |
| PZR: | Pressurizer |
| RC: | Reactor Coolant |
| RCP: | Reactor Coolant Pump |
| REV: | Revision |
| RHR: | Reactor Residual Heat Removal |
| Recirc: | Recirculation |

| | |
|---|---|
| RCS: | Reactor Coolant System |
| RPV: | Reactor Pressure Vessel |
| RVLMS: | Reactor Vessel Level Monitoring System |
| REM: | Roentgen Equivalent Man |
| SDCHX: | Shutdown Cooling Heat Exchanger |
| SD: | Shutdown |
| SER: | Significant Event Report |
| SG: | Steam Generator |
| SI: | Safety Injection |
| SN: | Serial Number |
| T: | Thickness |
| Tech. Spec: | Technical Specification |
| UFSAR: | Updated Final Safety Analysis Report |
| USNRC: | United States Nuclear Regulatory Commission |
| UV: | Multivariable Control Valve |
| V: | Valve |