INSERVICE INSPECTION
PROGRAM SUMMARY MANUAL

PALO VERDE
NUCLEAR GENERATING STATION
UNIT 1

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APPROVAL BY
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COMMERCIAL
SERVICE DATE: 01/28/86

PROGRAM NO: ISI-1
REVISION NO: 01.01

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PALO VERDE
NUCLEAR GENERATING STATION
UNIT 1
INSERVICE INSPECTION - PROGRAM SUMMARY

1.0 SUMMARY

1.1 This document contains a detailed description of the Inservice Inspection Program for Palo Verde Nuclear Generating Station (PVNGS), Unit 1. This program conforms to the requirements of 10 CFR 50.55a(g) and the PVNGS Technical Specifications. In addition, the information is presented in a form consistent with applicable requirements of Standard Review Plan Sections 5.2.4 and 6.6, 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."

1.2 The revision is being prepared to include changes resulting from the NRC review and acceptance of Revision 0, see NRC letter dated October 21, 1987, from E. A. Licitra, NRC, to E. E. Van Brunt, Jr., ANPP, " Inservice Inspection Programs - Palo Verde Units 1, 2 & 3." The major changes in this revision are to establish a common interval date for all units, to update the Requests for Relief, to include the Zone Drawings, and to make small changes and corrections noted during the initial use of the program.

2.0 CODE APPLICABILITY

2.1 Based on paragraph 10 CFR 50.55a(b) (2) that was published 12 months prior to the date December 31, 1984 of issuance of the operating license, the 1980 Edition through and including the Winter 1981 Addenda of ASME Section XI was utilized to prepare this program. In addition, and in accordance with paragraph 10 CFR 50.55a(b) (2) (IV) (A), the extent of Class 2 piping welds for the PVNGS Safety Injection System: Residual Heat Removal (RHR), Emergency Core Cooling System (ECCS), and Containment Heat Removal (CHR) system was determined in accordance with the 1974 Edition through and including the Summer 1975 Addenda of ASME Section XI.

2.2 This program will be updated for each inspection interval to conform with the requirements of the latest edition and addenda of the ASME Section XI Code referenced in paragraph (b) of 10 CFR 50.55a. When a code required examination is considered to be impractical, because of plant design or other conditions, a request for relief from that requirement will be prepared and included in the program at the beginning of that inspection interval (Section 9.0). 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 with the next revision to the program.

3.0 DESCRIPTION

3.1 SCOPE

3.1.1 This Inservice Inspection Program Summary includes all applicable nondestructive examinations required by ASME Section XI and those identified in the PVNGS Technical Specifications as identified below:

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

2. Examination of the Reactor Coolant Pump Flywheels in accordance with PVNGS Technical Specifications Section 3/4.4.9.

3. Augmented high energy piping examination in accordance with PVNGS UFSAR Section 6.6.8.

4. Augmented examinations of CHR, RHR, and ECCS piping in accordance with 10 CFR 50.55a.

5. Special examinations to satisfy other commitments or concerns that are based on operating experiences, USNRC Circulars, Information Notices, Bulletins, Combustion Engineering Bulletins, INPO Reports, etc. These examinations are scheduled throughout this program and reference the applicable notification documents.

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

1. The inservice testing of snubbers will be performed in accordance with the PVNGS Technical Specifications Section 3/4.7.9.

   Note: Request for Relief #1 in Section 9.0.

2. The pump and valve testing program is contained and submitted under a separate cover.

3.2 SYSTEM BOUNDARIES

3.2.1 A complete set of Inservice Boundary drawings was included in Section 10.0 of Revision 0 of the Unit 1 Program, see Letter ANPP-33266-EEVB/KLM, dated August 26, 1985, from E. E. Van Brunt, Jr., ANPP, to George W. Knighton, NRC, "Palo Verde Nuclear Generating Station (PVNGS) Unit 1 Docket Nos. STN 50-528 (License No. NPF-41) Initial Inservice Inspection Program-PVNGS Unit 1". There has not been any significant changes since those drawings were submitted; therefore, a new set is not being submitted with this revision. Please refer to these drawings for definition of the ASME Class 1, 2, and 3 systems; components; and boundaries scheduled for examinations and pressure testing. A set of zone drawings was requested to be submitted to the NRC for a thorough review of Revision 0. A copy of these are now included in Section 11.0.

3.3 ACCESSIBILITY

3.3.1 The preservice examinations were performed with examination techniques, both automated and 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 have been no additional code limitations noted during the formulation of this program other than those contained in the Request for Relief Section.

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 in the summary reports that are prepared after each outage.

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 (Structural Condition)
- VT - 4 (Operability)

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.

3.5 INSPECTION INTERVALS

3.5.1 The Inservice Inspection Program was prepared in accordance with Program B of ASME Section XI. The initial 10-year inspection interval and corresponding inspection periods are defined below:

First Inspection Interval:	01/28/86 to 07/17/98
Period One:	01/28/86 to 11/17/91
Period Two:	11/18/91 to 03/17/95
Period Three:	03/18/95 to 07/17/98

These dates have been modified to a common interval start date for all three PVNGS units. This is in accordance with NRC letter dated October 21, 1987, from E. A. Licitra, NRC, to E. E. Van Brunt, Jr., ANPP, "Inservice Inspection Programs - Palo Verde, Units 1, 2, and 3" to allow the three units to be under the same ASME Section XI edition and addenda. It should be noted that the intervals/periods may change between units to allow for extended outage durations per IWA-2400 of ASME Section XI. For Unit 1, a 16-month extension was also added to the interval due to the length of the second refueling outage.

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 Program 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, line number, 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 IWA and IWB-3000. In addition, all applicable repairs and replacements will be performed in accordance with ASME Section XI Articles IWA, IWB, IWC, IWD, and IWF-4000 and 7000. Pressure tests will be performed only on welded repairs or replacements, in accordance with IWA-4000 and 5000. Both the evaluations and repair or replacement will be performed in accordance with the 1980 Edition through and including the Winter 1981 Addenda of ASME Section XI, or later editions and addenda of ASME Section XI referenced in 10 CFR 50. 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 System pressure tests will be performed in accordance with ASME Section XI and as identified in Sections 4.0, 5.0, and 6.0 for ASME Class 1, 2, and 3, respectively. These tables also identify the type of pressure test, and test frequency, any applicable requests for relief, and references the appropriate ASME Section XI Article for each of the ASME Code Classes.

3.9 AUGMENTED HIGH ENERGY PIPING

3.9.1 Based on the PVNGS UFSAR, an augmented examination is required for protection against postulated pipe failures. This augmented examination program includes the following high energy piping systems located between the containment penetration and the main steam support structure wall:

Main Steam
Feedwater
Steam Generator Blowdown
Downcomer Feedwater

3.9.2 The summary tables in Section 7.0 identify each system, along with the required examination amounts and frequencies. As shown by these tables, a volumetric examination of all longitudinal and circumferential welds is scheduled. These welds will be examined to the maximum extent practical. Any limitations to the examination will be included and documented in the examination report prepared in accordance with ASME Section XI.

3.10 EXEMPTIONS

3.10.1 The exemption criteria identified in the 1980 Edition through and including the Winter 1981 Addenda of ASME Section XI was utilized for all ASME Class 1, 2, and 3 components and systems. This includes the PVNGS Safety Injection System (RHR, ECCS, and CHR systems) piping and components, even though 10 CFR 50.55a requires the 1974 Edition through and including the 1975 Summer Addenda be utilized. It was concluded after a detailed review that the exemption criteria identified in the Winter 1981 Addenda was more conservative in every case than those identified in the Summer 1975 Addenda, and more examinations would therefore be performed on safety injection systems piping and components.

3.10.2 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 Boundary drawings was prepared. These drawings are maintained at the PVNGS site for review.

3.11 CODE CASES

3.11.1 ASME Section XI Code Case acceptability will be based on Regulatory Guide 1.147.

3.12 DEFINITION OF TERMS

AHE:	Augmented High Energy
ANII:	Authorized Nuclear Inservice Inspector
ANPP:	Arizona Nuclear Power Project
APS:	Arizona Public Service
ASME:	American Society of Mechanical Engineers
Aux:	Auxiliary
BWR:	Boiling Water Reactor
CE:	Combustion Engineering
CEDM:	Control Element Drive Mechanisr
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
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:	Pressurizer Safety Valve
PWR:	Pressurized Water Reactor

PVNGS:	Palo Verde Nuclear Generating Station
PZR:	Pressurizer
RC:	Reactor Coolant
RCP:	Reactor Coolant Pump
Reg.:	Regulatory
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

SECTION 4.0
ASME CLASS 1
EXAMINATION SUMMARY

INDEX

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 100	EXAM CATEGORY B-A; PRESSURE RETAINING WELDS IN REACTOR VESSEL								
110	SHELL WELDS								
111	CIRCUMFERENTIAL								
	1- Reactor Vessel	Butt Welds	SN 78173	Vol	3 **	0	One	0	
						0	Two	0	
						3	Three	100	
112	LONGITUDINAL								
	1- Reactor Vessel	Butt Welds	SN 78173	Vol	9 **	0	One	0	
						0	Two	0	
						9	Three	100	
120	HEAD WELDS								
121	CIRCUMFERENTIAL	None	-	-	-	-	-	-	
122	MERIDIONAL								
	1- Reactor Vessel Bottom Head	Butt Weld	SN 78173	Vol	1	0	One	0	AUTOMATED EXAM CORE BARREL REMOVED, EXAMINE ENTIRE ACCESSIBLE LENGTH
						0	Two	0	
						1	Three	100	
	2- Closure Head	Butt Weld	SN 78173	Vol	1	33%	One	33	EXAMINE ENTIRE ACCESSIBLE LENGTH
						33%	Two	66	
						34%	Three	100	
130	SHELL-TO-FLANGE WELD								
	1- Reactor Vessel	Butt Weld	SN 78173	Vol	1	50% *	One	50	* EXAM FROM FLANGE MATING SURFACE.
						0%	Two	50	
						100% **	Three	100	**AUTOMATED EXAM CORE BARREL REMOVED.
140	HEAD-TO-FLANGE WELD								
	2- Closure Head	Butt Weld	SN 78173	Vol. S	1	33%	One	33	
						33%	Two	66	
						34%	Three	100	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
150	REPAIR WELDS								
151	BELTLINE REGION	None	-	-	-	-	-		

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 200	EXAM CATEGORY B-B, PRESSURE RETAINING WELDS IN VESSELS OTHER THAN REACTOR VESSELS								
	PRESSURIZER								
210	SHELL-TO HEAD WELDS								*1 FOOT MINIMUM OF EACH LONGITUDINAL WELD THAT INTERSECTS THE SCHEDULED CIRCUMFERENTIAL WELDS WILL BE EXAMINED.
211	CIRCUMFERENTIAL AND								
212	* LONGITUDINAL								
	5- Pressurizer Shell to bottom Head	Butt Weld	SN 78373	Vol	1	33% 33% 34%	One Two Three	33 66 100	
	5- Pressurizer Shell to Top Head	Butt Weld	SN 78373	Vol	1	33% 33% 34%	One Two Three	33 66 100	
220	HEAD WELDS	None	-	-	-	-	-	-	
221	CIRCUMFERENTIAL	None	-	-	-	-	-	-	
222	MERIDIONAL	None	-	-	-	-	-	-	
	STEAM GENERATORS								
230	HEAD WELDS								
231	CIRCUMFERENTIAL								
	3- Steam Generator 1	Butt Welds	SN 78273-1	Vol	4	1 1 2 **	One Two Three	25 50 100	**STAY-CYLINDER EXAMS
	4- Steam Generator 2	Butt Welds	SN 78273-2	Vol	4	1 1 2 **	One Two Three	25 50 100	**STAY CYLINDER EXAMS

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APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
232	MERIDIONAL								
	3- Steam Generator 1	Butt Welds	SN 78273-1	Vol	6	4	One	66	
						1	Two	83	
						1	Three	100	
	4- Steam Generator 2	Butt Welds	SN 78273-2	Vol	6	0	One	-	
						5	Two	83	
						1	Three	100	
240	TUBESHEET TO HEAD								
	3- Steam Generator 1	Butt Welds	SN 78273-1	Vol	2	1	One	50	
						0	Two	50	
						1 *	Three	100	*STAY-CYLINDER EXAMS
	4- Steam Generator 2	Butt Welds	SN 78273-2	Vol	2	0	One	-	
						1	Two	50	
						1 *	Three	100	
	HEAT EXCHANGERS								
250	HEAD WELDS	None	-	-	-	-	-	-	
251	CIRCUMFERENTIAL	None	-	-	-	-	-	-	
252	MERIDIONAL	None	-	-	-	-	-	-	
253	LONGITUDINAL								
260	TUBESHEET-TO-SHELL (OR HEAD) WELDS	None	-	-	-	-	-	-	
261	TUBESHEET-TO-SHELL	None	-	-	-	-	-	-	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 300	EXAM CATEGORY B-D; FULL PENETRATION WELDS OF NOZZLES IN VESSELS-INSPECTION PROGRAM B								
	REACTOR VESSEL								
390	NOZZLE-TO-VESSEL WELDS								
&	AND								
3100	NOZZLE INSIDE RADIUS SECTION								
	1- Reactor Vessel	Outlets - 2	SN 78173	Vol	6	2	One	33	*AUTOMATED
		Inlets - 4				0	Two	33	EXAMS FROM
						4 *	Three	100	SHELL SIDE WITH CORE BARREL REMOVED
	PRESSURIZER								
3110	NOZZLE-TO-VESSEL WELDS								
&	AND								
3120	NOZZLE INSIDE RADIUS SECTION								
	5- Pressurizer	Surge - 1	SN 78373	Vol	6	2	One	33	
		Spray - 1				2	Two	66	
		Safeties - 4				2	Three	100	
	STEAM GENERATORS								
3130	NOZZLE-TO-VESSEL WELDS								
&	AND								
3140	NOZZLE INSIDE RADIUS SECTION								
	3- Steam Generator 1	Inlet - 1	SN 78273-1	Vol	3	1	One	33	
		Outlet - 2				1	Two	66	
						1	Three	100	
	4- Steam Generator 2	Inlet - 1	SN 78273-2	Vol	3	1	One	33	
		Outlet - 2				1	Two	66	
						1	Three	100	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
	HEAT EXCHANGERS	None	-	-	-	-	-	-	
3150	NOZZLE-TO-VESSEL WELDS	None	-	-	-	-	-	-	
&	AND								
3160	NOZZLE INSIDE RADIUS SECTION	None	-	-	-	-	-	-	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B-400	EXAM CATEGORY B-E, PRESSURE RETAINING PARTIAL PENETRATION WELDS IN VESSELS								ALL EXAMS PERFORMED IN CONJUNCTION WITH EXAM CATEGORY B-P
B4.10	PARTIAL PENETRATION WELDS								
B4.11	VESSEL NOZZLES	None	-	-	-	-	-	-	
B4.12	CONTROL ROD DRIVE NOZZLES								
	Reactor Vessel Closure Head	CEDM Nozzles	SN 78173	VT-2	97	8 8 9	One Two Three	8 16 26	
B4.13	INSTRUMENT NOZZLES								
	Reactor Vessel	Bottom Head	SN 78173	VT-2	61	5 5 6	One Two Three	8 16 26	
B4.20	PRESSURIZER HEATER PENETRATION WELDS	Bottom Head	SN 78373	VT-2*	36	3 3 3	One Two Three	8 17 26	* A SUPPLEMENTAL VT-2 EXAM WILL BE PERFORMED ON ALL STANDPIPE AND HEATER NOZZLES EACH REFUELING OUTAGE. (SEE CE INFO BULLETIN 89-06)

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B-F 500	EXAM CATEGORY B-F; PRESSURE RETAINING DISSIMILAR METAL WELDS								
	REACTOR VESSEL								
510	NOMINAL PIPE SIZE ≥ 4 INCH NOZZLE TO SAFE END BUTT WELDS	None	-	-	-	-	-	-	
520	NOMINAL PIPE SIZE < 4 INCH NOZZLE TO SAFE END BUTT WELDS	None	-	-	-	-	-	-	
530	NOZZLE TO SAFE END SOCKET WELDS	None	-	-	-	-	-	-	
	PRESSURIZER								
540	NOMINAL PIPE SIZE≥ 4 INCH NOZZLE TO SAFE END BUTT WELDS								
	20-Surge	Butt Welds	RC-28-12"	S, Vol	6	2	One	33	* RT SUPPLEMENTAL EXAM FOR THERMAL SLEEVE INTEGRITY (NOTE IEIN 82-09)
	29-Spray*	Butt Welds	RC-18-4"			2	Two	66	
	31-Safeties (4)	Butt Welds	RC-1-6" RC-3-6" RC-5-6" RC-7-6"			2	Three	100	
550	NOMINAL PIPE SIZE < 4 INCH NOZZLE TO SAFE END BUTT WELDS	None	-	-	-	-	-	-	
560	NOZZLE TO SAFE END SOCKET WELDS	None	-	-	-	-	-	-	
	STEAM GENERATOR								
570	NOMINAL PIPE SIZE ≥ 4 INCH NOZZLE TO SAFE END BUTT WELDS	None	-	-	-	-	-	-	
580	NOMINAL PIPE SIZE < 4 INCH NOZZLE TO SAFE END BUTT WELDS	?	-	-	-	-	-	-	

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B90	NOZZLE TO SAFE END SOCKET WELDS	None	-	-	-	-	-	-	
	HEAT EXCHANGERS								
B5.100	NOMINAL PIPE SIZE ≥ 4 INCH NOZZLE TO SAFE END BUTT WELDS	None	-	-	-	-	-	-	
B5.110	NOMINAL PIPE SIZE < 4 INCH NOZZLE TO SAFE END BUTT WELDS	None	-	-	-	-	-	-	
B5.120	NOZZLE TO SAFE END SOCKET WELDS	None	-	-	-	-	-	-	
B5.130	PIPING NOMINAL PIPE SIZE ≥ 4 INCH DISSIMILAR METAL BUTT WELDS								ITEMS B5.130 & B5.140 SYSTEMS COMBINED FOR PERCENTAGE
	20-Pressurizer Surge	Butt Weld	RC-28-12"	S, Vol	1	1	Three	-	
	21-Shutdown Cooling Loop 1	Butt Weld	RC-51-16"	S, Vol	1	1	One	-	
	22-Shutdown Cooling Loop 2	Butt Weld	RC-68-16"	S, Vol	1	1	Two	-	
	23-Safety Injection 1A	Butt Weld	SI-207-14"	S, Vol	1	1	One	-	
	24-Safety Injection 1B	Butt Weld	SI-223-14"	S, Vol	1	1	Three	-	
	25-Safety Injection 2A	Butt Weld	SI-160-14"	S, Vol	1	1	Two	-	
	26-Safety Injection 2B	Butt Weld	SI-179-14"	S, Vol	1	1	Three	-	
B5.140	NOMINAL PIPE SIZE < 4 INCH DISSIMILAR METAL BUTT WELDS								
	27-Pressurizer Spray 1A	Butt Weld	RC-62-3"	S	1	1	One	-	
	28-Pressurizer Spray 1B	Butt Weld	RC-17-3"	S	1	1	Two	-	
	32-Drain Line 1A	Butt Weld	RC-60-2"	S	1	1	One	29	
	33-Drain Line 1B	Butt Weld	RC-58-2"	S	1	1	Two		
	34-Drain Line 2A	Butt Weld	RC-96-2"	S	1	1	Three	-	
	36-Letdown Line	Butt Weld	RC-91-2"	S	1	1	Three	100	
	37-Charging Line*	Butt Weld	CH-5-3"	S	1	1	Two	64	
									*RT SUPPLEMENTAL EXAM FOR THERMAL SLEEVE INTEGRITY (NOTE BEIN 97-09).
B5.150	DISSIMILAR METAL SOCKET WELDS	None	-	-	-	-	-	-	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 600	EXAM CATEGORY B-G-1, PRESSURE RETAINING BOLTING GREATER THAN 2 IN. IN DIAMETER								
	REACTOR VESSEL								
610	CLOSURE HEAD NUTS								
	2- Closure Head	Nuts	7.237" x 7.91"	S	54	18 18 18	One Two Three	33 66 100	
620	CLOSURE STUDS, IN PLACE	None*	-	-	-	-	-	-	*STUDS WILL BE REMOVED FOR EXAMINATION
630	CLOSURE STUDS, WHEN REMOVED								
	2- Closure Head	Studs	7.380" x 76.37"	S, Vol	54	18 18 18	One Two Three	33 66 100	
640	THREADS IN FLANGE								
	1- Reactor Vessel	Flange Ligaments	SN 78173	Vol	54	0 0 54	One Two Three	0 0 100	
650	CLOSURE WASHERS, BUSHINGS								
	1- Reactor Vessel	Washers	7.50" x 1.27"	VT-1	54	18 18 18	One Two Three	33 66 100	
	PRESSURIZER								
660	BOLTS AND STUDS	None	-	-	-	-	-	-	
670	FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED	None	-	-	-	-	-	-	
680	NUTS, BUSHINGS, AND WASHERS	None	-	-	-	-	-	-	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
	STEAM GENERATORS								
690	BOLTS AND STUDS	None	-	-	-	-	-	-	
	FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED	None	-	-	-	-	-	-	
6110	NUTS, BUSHINGS, AND WASHERS	None	-	-	-	-	-	-	
		None	-	-	-	-	-	-	
	HEAT EXCHANGERS								
6120	BOLTS AND STUDS	None	-	-	-	-	-	-	
6130	FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED	None	-	-	-	-	-	-	
6140	NUTS, BUSHINGS, AND WASHERS	None	-	-	-	-	-	-	
	PIPING								
6150	BOLTS AND STUDS	None	-	-	-	-	-	-	
6160	FLANGE SURFACE, WHEN CONNECTION DISASSEMBLED	None	-	-	-	-	-	-	
6170	NUTS, BUSHINGS, AND WASHERS	None	-	-	-	-	-	-	*A SUPPLEMENTAL VT-1 EXAM WILL BE PERFORMED 100% PER REFUELING OUTAGE (SEE IEIN 80-27)
	PUMPS								
6180	BOLTS AND STUDS**								
	16-Reactor Coolant Pump 1A	Flange Studs	4.33" x 32.87"	Vol*	16	5	One	31	**SUPPLEMENTED BY VISUAL (EACH REMOVAL AND SURFACE (A "5 YR. INTERVALS) EXAMS WHEN REMOVED (SEE IEB 82-02)
						5	Two	62	
						6	Three	100	
	17-Reactor Coolant Pump 1B	Flange Studs	4.33" x 32.87"	Vol*	16	5	One	31	
						5	Two	62	
						6	Three	100	
	18-Reactor Coolant Pump 2A	Flange Studs	4.33" x 32.87"	Vol*	16	5	One	31	
						5	Two	62	
						6	Three	100	
	19-Reactor Coolant Pump 2B	Flange Studs	4.33" x 32.87"	Vol*	16	5	One	31	
						5	Two	62	
						6	Three	100	

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6190	FLANGE SURFACE, WHEN CONNECTION DISAS-SEMBLED								
	16, 17, 18 and 19-Reactor Coolant Pumps 1A, 1B, 2A & 2B	Flange Surface	CASING SN 1A - 1247 1B - 1249 2A - 1248 2B - 1250	VT-1	16 per pump	* * *	One Two Three	* * *	*100% EXAM WHEN DISASSEMBLED (THERE ARE NO BUSHINGS IN THE PUMP FLANGES) **THE CLAMPING RING WILL BE EXAMINED (THERE ARE NO WASHERS)
6200	NUTS, BUSHINGS AND WASHERS**								
	16-Reactor Coolant Pump 1A	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	17-Reactor Coolant Pump 1B	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	18-Reactor Coolant Pump 2A	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	19-Reactor Coolant Pump 2B	Nuts & Clamping Ring	4.528" x 7.283"	VT-1	16	5 5 6	One Two Three	31 62 100	
	VALVES								
6210	BOLTS AND STUDS	None	-	-	-	-	-	-	
	FLANGE SURFACE, WHEN CONNECTION DISAS-SEMBLED	None	-	-	-	-	-	-	
6230	NUTS, BUSHINGS, AND WASHERS	None	-	-	-	-	-	-	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B-G-2	EXAM. CATEGORY B-G-2, PRESSURE RETAINING BOLTING 2 IN. AND LESS IN DIAMETER								
B7.10	REACTOR VESSEL BOLTS, STUDS AND NUTS	None							
B7.20	PRESSURIZER BOLTS, STUDS AND NUTS								
	5- Pressurizer Manway	Studs & Nuts	1.5" x 14.5"	VT-1	* 20	20	One	100	*SUPPLEMENTED BY VISUAL (EACH REMOVAL) AND SURFACE (AT 5 YR. INTERVALS) EXAMS WHEN REMOVED (SEE IEB 82-02)
					Pairs	20	Two	100	
						20	Three	100	
B7.30	STEAM GENERATORS BOLTS, STUDS AND NUTS								
	3- Steam Generator 1 Cold Leg and Hot Leg Manways	Studs & Nuts	1.5" x 14.5"	VT-1	* 40	40	One	100	
					Pairs	40	Two	100	
						40	Three	100	
	4- Steam Generator 2 Cold Leg and Hot Leg Manways	Studs & Nuts	1.5" x 14.5"	VT-1	* 40	40	One	100	
					Pairs	40	Two	100	
						40	Three	100	
B7.40	HEAT EXCHANGERS	None	-	-	-	-	-	-	
B7.50	PIPING BOLTS, STUDS AND NUTS								
	31-Pressurizer Safeties	Flange	RC-1-6"	VT-1	* 4	1	One	25	
		Flange	RC-3-6"			1	Two	50	
		Flange	RC-5-6"			2	Three	100	
		Flange	RC-7-6"						
	37-Charging Line	Flange	CH-5-3"	VT-1	1	1	One	100	
						0	Two	100	
						0	Three	100	

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	PUMPS								
760	BOLTS, STUDS AND NUTS								
	16-Reactor Coolant Pump 1A Seal Cover Bolting	Seal Cover Studs & Nuts	1.5" x 8.27"	VT-1	16	5 5 6	One Two Three	31 62 100	
	17-Reactor Coolant Pump 1B Seal Cover Bolting	Seal Cover Studs & Nuts	1.5" x 8.27"	VT-1	16	5 5 6	One Two Three	31 62 100	
	18-Reactor Coolant Pump 2A Seal Cover Bolting	Seal Cover Studs & Nuts	1.5" x 8.27"	VT-1	16	5 5 6	One Two Three	31 62 100	
	19-Reactor Coolant Pump 2B Seal Cover Bolting	Seal Cover Studs & Nuts	1.5" x 8.27"	VT-1	16	5 5 6	One Two Three	31 62 100	
	VALVES								
770	BOLTS, STUDS AND NUTS								
	21-Shutdown Cooling Looping 1	UV-651 UV-653	RC-051-16" SI-240-16"	VT-1	2	1 0 1	One Two Three	50 50 100	
	22-Shutdown Cooling Loop 2	UV-652 UV-654	RC-068-16" SI-193-16"	VT-1	2	1 1 0	One Two Three	50 100 100	
	23-Safety Injection Loop 1A	V-235 UV-634 V-237 V-542	SI-207-14" SI-207-14" SI-207-14" SI-203-12"	VT-1	4	1 2 1	One Two Three	25 75 100	
	24-Safety Injection Loop 1B	V-245 UV-644 V-247 V-543	SI-223-14" SI-223-14" SI-223-14" SI-221-12"	VT-1	4	1 2 1	One Two Three	25 75 100	
	25-Safety Injection Loop 2A	V-215 UV-614 V-217 V-540	SI-160-14" SI-160-14" SI-159-14" SI-156-12"	VT-1	4	1 1 2	One Two Three	25 50 100	

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770	CONTINUED								
	26-Safety Injection Loop 2B	V-225	SI-179-14"	VT-1	4	1	One	25	
		UV-624	SI-179-14"			2	Two	75	
		V-227	SI-179-14"			1	Three	100	
		V-541	SI-175-12"						
	27-Pressurizer Spray	V-240	RC-62-3"	VT-1	3	0	One	0	
	Loop 1A	PV-100E	RC-62-3"			1	Two	33	
		V-243	RC-16-3"			2	Three	100	
	28-Pressurizer Spray	V-241	RC-17-3"	VT-1	3	2	One	66	
	Loop 1B	PV-100F	RC-17-3"			1	Two	100	
		V-242	RC-18-3"			0	Three	100	
	29-Combined Pressurizer	V-244	RC-[illegible]8-4"	VT-1	1	0	One	0	
	Spray					0	Two	0	
						1	Three	100	
	31-Pressurizer Safeties	PSV-200	RC-1-6"	VT-1	4	1	One	25	
		PSV-201	RC-3-6"			1	Two	50	
		PSV-202	RC-5-6"			2	Three	100	
		PSV-203	RC-7-6"						
	32-Drain Line	V-334	RC-60-2"	VT-1	2	2	One	100	
	Loop 1A	V-234	RC-60-2"			0	Two	100	
						0	Three	100	
	33-Drain Line	V-335	RC-58-2"	VT-1	2	0	One	0	
	Loop 1B	V-235	RC-58-2"			2	Two	100	
						0	Three	100	
	34-Drain Line	V-333	RC-96-2"	VT-1	2	0	One	0	
	Loop 2A	V-233	RC-96-2"			2	Two	100	
						0	Three	100	
	35-Drain Line	V-332	RC-89-2"	VT-1	2	0	One	0	
	Loop 2B	V-232	RC-89-2"			0	Two	0	
						2	Three	100	
	36-Letdown Line	UV-515	RC-91-2"	VT-1	2	0	One	0	
		UV-516	CH-1-2"			0	Two	0	
						2	Three	100	
	37-Charging Line	PDV-240	CH-5-3"	VT-1	1	1	One	100	
						0	Two	100	
						0	Three	100	

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770	CONTINUED								
	38-Drain Line Loop 1	V-215	RC-70-2"	VT-1	2	1	One	50	
		V-216	RC-70-2"			0	Two	50	
						1	Three	100	
	39-HPSI Long Term Recirculation Loop 1	V-523	SI-248-3"	VT-1	3	1	One	33	
		V-522	SI-248-3"			2	Two	100	
		V-957	SI-248-3"			0	Three	100	
	40-HPSI Long Term Recirculation Loop 2	V-533	SI-199-3"	VT-1	3	0	One	0	
		V-532	SI-199-3"			1	Two	33	
		V-958	SI-199-3"			2	Three	100	
780	CRD HOUSINGS BOLTS, STUDS, AND NUTS								
	2- RVLMS Locations	Marmon Clamps	CEDM 92	VT-1	2	1	One	50	
			CEDM 96			0	Two	50	
						1	Three	100	

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B 800	EXAM CATEGORY B-H, INTEGRAL ATTACHMENTS FOR VESSELS								
810	REACTOR VESSEL INTEGRALLY WELDED ATTACHMENTS	None	-	-	-	-	-	-	
820	PRESSURIZER INTEGRALLY WELDED ATTACHMENTS								
	5. Pressurizer	Support Skirt	SN 78373	S, Vol	1	33% 33% 34%	One Two Three	33 66 100	
830	STEAM GENERATORS INTEGRALLY WELDED ATTACHMENTS								
	3. Steam Generator 1	Support Skirt	SN 78273-1	Vol	1	33% * 34%	One Two Three	33* * 100*	* MULTIPLE VESSELS, EXAMINATIONS TOTAL 100%
	4. Steam Generator 2	Support Skirt	SN 78273-2	Vol	1	* 33% *	One Two Three	* 66 *	SUPPORT SKIRT WELD IN 1 STEAM GENERATOR.
840	HEAT EXCHANGERS INTEGRALLY WELDED ATTACHMENTS	None	-	-	-	-	-	-	

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B 900	EXAM CATEGORY B-J; PRESSURE RETAINING WELDS IN PIPING								
910	NOMINAL PIPE SIZE ≥ 4 IN.								
911 912	CIRCUMFERENTIAL AND *LONGITUDINAL WELDS								* THE LESSER OF 12" OR ONE PIPE DIAMETER LENGTH FROM SCHEDULED CIRC WELD INTER-SECTION WILL BE EXAMINED
	6- RCS Primary Piping	HL 1	RC-32-42" ID	S, Vol	66	7	One	11	AUTOMATED EXAM OF NOZZLE TO EXTENSION AND EXTENSION TO PIPE WELDS
		HL 2	RC-63-42" ID			6	Two	20	
		CL 1A to RCP	RC-33-30" ID			13	Three	39	
		CL 1B to RCP	RC-30-30" ID						
		CL 2A to RCP	RC-73-30" ID						
		CL 2B to RCP	RC-84-30" ID						
		CL 1A to RPV	RC-34-30" ID						
		CL 1B to RPV	RC-31-30" ID						
		CL 2A to RPV	RC-79-30" ID						
		CL 2B to RPV	RC-93-30" ID						
	20-Pressurizer Surge Line	Butt Welds	RC-28-12"	S, Vol	11	1	One	9	
						0	Two	9	
						2	Three	27	
	21-Shutdown Cooling Loop 1	Butt Welds	RC-51-16"	S, Vol	22	2	One	9	
			SI-240-16"			2	Two	18	
						2	Three	27	
	22-Shutdown Cooling Loop 2	Butt Welds	RC-68-16"	S, Vol	27	2	One	7	
			SI-193-16			2	Two	15	
						3	Three	26	
	23-Safety Injection 1A	Butt Welds	SI-207-14"	S, Vol	19	3	One	16	
			SI-203-12"			0	Two	16	
						2	Three	26	

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911 & 912	CONTINUED								
	24-Safety Injection 1B	Butt Welds	SI-223-14" SI-221-12"	S, Vol	18	0 3 2	One Two Three	0 16 28	
	25-Safety Injection 2A	Butt Welds	SI-160-14" SI-156-12"	S, Vol	22	2 3 1	One Two Three	9 23 27	
	26-Safety Injection 2B	Butt Welds	SI-179-14" SI-175-12"	S, Vol	20	2 1 2	One Two Three	10 15 25	
	28 & 29- Pressurizer Spray Loop 1B and Combined Pressurizer Spray	Butt Welds	RC-18-4"	S, Vol	17	2 1 2	One Two Three	12 18 29	
	31-Pressurizer Safeties	Butt Welds	RC-1-6" RC-3-6" RC-5-6" RC-7-6"	S, Vol	12	1 2 2	One Two Three	8 25 42	
	36-Letdown Line Delay Coil	Butt Welds	RC-91-16"	S, Vol	4	0 1 0	One Two Three	0 25 25	
920	NOMINAL PIPE SIZE< 4 IN.								* THE LESSER OF 12" OR 1 PIPE DIAMETER LENGTH FROM SCHEDULED CIRC WELD INTERSECTION WILL BE EXAMINED
921 & 922	CIRCUMFERENTIAL AND *LONGITUDINAL WELDS								
	27-Pressurizer Spray 1A	Butt Welds	RC-62-3" RC-16-3"	S	40	3 5 4	One Two Three	8 15 25	
	28-Pressurizer Spray 1B	Butt Welds	RC-17-3" RC-18-3"	S	37	4 3 5	One Two Three	11 19 27	

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921 & 922	CONTINUED								* VOL EXAM OF 2 WELDS AND BASE METAL DOWN-STREAM OF V431 PER IEB 88-08.
	30-Aux Pressurizer Spray	Butt Welds	CH-009-2"	S	11	2	One*	18	
			CH-520-2"			2	Two	36	
			CH-521-2"			0	Three	36	
	32-Drain Line Loop 1A	Butt Welds	RC-60-2"	S	5	2	One	40	
						0	Two	40	
						0	Three	40	
	33-Drain Line Loop 1B	Butt Welds	RC-58-2"	S	5	0	One	0	
						2	Two	40	
						0	Three	40	
	34-Drain Line Loop 2A	Butt Welds	RC-96-2"	S	5	0	One	0	
						0	Two	0	
						2	Three	40	
	35-Drain Line Loop 2B	Butt Welds	RC-89-2"	S	5	0	One	0	
						0	Two	0	
						2	Three	40	
	36-Letdown Line	Butt Welds	RC-91-2"	S	70	4	One	6	
						6	Two	14	
						8	Three	26	
	37-Charging Line	Butt Welds	CH-5-3"	S	63	5	One	8	
						6	Two	17	
						6	Three	27	
	38-Drain Line Loop 1	Butt Welds	RC-70-2"	S	4	0	One	0	
						1	Two	25	
						0	Three	25	
	39-HPSI Long Term Recirculation 1	Butt Welds	SI-248-3"	S	36	2	One	6	
						3	Two	14	
						4	Three	25	
	40-HPSI Long Term Recirculation 2	Butt Welds	SI-199-3"	S	27	3	One	11	
						2	Two	19	
						2	Three	26	

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B9.30	BRANCH PIPE CONNECTION WELDS								
B9.31	NOMINAL PIPE SIZE ≥ 4 IN.								ITEM B9.31, SYSTEMS COMBINED FOR PERCENTAGE
	6- RCS Primary Piping	Surge	RC-32-42" ID	S, Vol	1	1	Three	-	
		SD Cooling 1	RC-32-42" ID	S, Vol	1	0	-	-	
		SD Cooling 2	RC-63-42" ID	S, Vol	1	0	-	-	
		SI 1A	RC-34-30" ID	S, Vol	1	1	One	14	
		SI 1B	RC-31-30" ID	S, Vol	1	1	Three	-	
		SI 1C	RC-79-30" ID	S, Vol	1	1	Two	29	
		SI 1D	RC-93-30" ID	S, Vol	1	1	Three	71	
B9.32	NOMINAL PIPE SIZE ≤ 4 IN.								ITEM B9.32, SYSTEMS COMBINED FOR PERCENTAGE
	6- RCS Primary Piping	Drain 1A	RC-33-30" ID	S	1	1	One	-	
		PZR Spray 1A	RC-34-30" ID	S	1	0	-	-	
		Drain 1B	RC-30-30" ID	S	1	0	-	-	
		PZR Spray 1B	RC-31-30" ID	S	1	0	-	-	
		Drain 2A	RC-73-30" ID	S	1	0	-	-	
		Charging	RC-79-30" ID	S	1	1	Two	-	
		Letdown	RC-84-30" ID	S	1	1	Three	42	
	21-Shutdown Cooling Loop 1	2" Drain	RC-051-16"	S	2	0	One	-	
		3" HPSI				0	Two	-	
						0	Three	-	
	22-Shutdown Cooling Loop 2	3" HPSI	RC-068-16"	S	1	1	One	14	
						0	Two	-	
						0	Three	-	
	36-Letdown Line	2" Delay Coil	RC-091-16"	S	4	0	One	-	
						2	Two	36	
						0	Three	-	
B9.40	SOCKET WELDS								
	32-Drain Line Loop 1A	Socket Welds	RC-060-2"	S	3	1	One	33	
						0	Two	33	
						0	Three	33	
	33-Drain Line Loop 1B	Socket Welds	RC-058-2"	S	3	0	One	0	
						1	Two	33	
						0	Three	33	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
940	CONTINUED								
	34-Drain Line Loop 2A	Socket Welds	RC-096-2"	S	3	0	One	0	
						1	Two	33	
						0	Three	33	
	35-Drain Line Loop 2B	Socket Welds	RC-089-2"	S	3	0	One	0	
						0	Two	0	
						1	Three	33	
	38-Drain Line Loop 1	Socket Welds	RC-070-2"	S	3	1	One	33	
						0	Two	33	
						0	Three	33	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B .000	EXAM CATEGORY B-K-1; INTEGRAL ATTACHMENTS FOR PIPING, PUMPS, AND VALVES								
1010	PIPING INTEGRALLY WELDED ATTACHMENTS								ITEM B10.10 COMBINED FOR PERCENTAGE
	22-Shutdown Cooling Loop 2	Lugs	SI-193-16"	S	1	1	Two	-	
	24-Safety Injection 1B	Stanchion	SI-223-14"	S	1	1	Three	-	
	25-Safety Injection 2A	Stanchion	SI-160-14"	S	1	1	Three	100	
	26-Safety Injection 2B	Stanchion	SI-179-14"	S	1	1	One	-	
	36-Letdown Line	Lugs	RC-091-16"	S	2	1 1	One Two	33 66	
1020	PUMPS INTEGRALLY WELDED ATTACHMENTS	None	-	-	-	-	-	-	
1030	VALVES INTEGRALLY WELDED ATTACHMENTS	None	-	-	-	-	-	-	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1200	EXAM CATEGORY B-L-1, B-M-1; PRESSURE RETAINING WELDS IN PUMP CASINGS AND VALVE BODIES; EXAM CATEGORY B-L-2, B-M-2; PUMP CASINGS AND VALVE BODIES								
	PUMPS								
1210	PUMP CASING WELDS								
	16-Reactor Coolant Pump 1A 17-Reactor Coolant Pump 1B 18-Reactor Coolant Pump 2A 19-Reactor Coolant Pump 2B	Circumferential Casing Welds	1247 1249 1248 1250	Vol	4	Examine the Weld in 1 Pump	*	100	
	16-Reactor Coolant Pump 1A 17-Reactor Coolant Pump 1B 18-Reactor Coolant Pump 2A 19-Reactor Coolant Pump 2B	Outlet Nozzle To Casing Welds	1247 1249 1248 1250	Vol	4	Examine the Weld in 1 Pump	*	100	* BY THE END OF THE INTERVAL
1220	PUMP CASINGS								
	16-Reactor Coolant Pump 1A 17-Reactor Coolant Pump 1B 18-Reactor Coolant Pump 2A 19-Reactor Coolant Pump 2B	Internal Surfaces	1247 1249 1248 1250	VT-3	4	Examine the Internal surfaces in 1 Pump	*	100	* BY THE END OF THE INTERVAL
	VALVES								
1230	VALVES, NOMINAL PIPE SIZE < 4 INCH VALVE BODY WELDS	None	-	-	-	-	-	-	
1240	VALVES, NOMINAL PIPE SIZE ≥ 4 INCH VALVE BODY WELDS								
	Borg Warner Gate Valves Utilizing Forged Construction	UV-651 UV-653 UV-652 UV-654 UV-634 UV-644 UV-614 UV-624	RC-51-16" SI-240-16" RC-68-16" SI-193-16" SI-207-14" SI-223-14" SI-160-14" SI-179-14"	Vol	8	Examine the Weld in 1 Valve	*	100	* BY THE END OF THE INTERVAL

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
1240	CONTINUED								
	Borg Warner Check Valve Utilizing Forged Construction	V-244	RC-18-4"	Vol	1	1	*	100	* BY THE END OF THE INTERVAL
	Dresser Pressure Safety Valves Utilizing Forged Construction	PSV-200 PSV-201 PSV-202 PSV-203	RC-1-6" RC-3-6" RC-5-6" RC-7-6"	Vol	4	Examine the Weld in 1 Valve	*	100	
1250	VALVE BODY, EXCEEDING 4 IN. NOMINAL PIPE SIZE								
	Borg Warner Gate Valves Utilizing Forged Construction	UV-651 UV-653 UV-652 UV-654 UV-634 UV-644 UV-614 UV-624	RC-51-16" SI-240-16" RC-68-16" SI-193-16" SI-207-14" SI-223-14" SI-160-14" SI-179-14"	VT-3	8	Examine the Internal Surfaces of 1 Valve	*	100	
	Borg Warner Check Valves Utilizing Forged Construction	V-235 V-237 V-542 V-245 V-247 V-543 V-215 V-217 V-540 V-225 V-227 V-541	SI-207-14" SI-207-14" SI-203-12" SI-223-14" SI-223-14" SI-221-12" SI-160-14" SI-160-14" SI-156-12" SI-179-14" SI-179-14" SI-175-12"	VT-3	12	Examine the Internal Surfaces of 1 Valve	*	100	
	Dresser Pressure Safety Valves Utilizing Forged Construction	PSV-200 PSV-201 PSV-202 PSV-203	RC-1-6" RC-3-6" RC-5-6" RC-7-6"	VT-3	4	Examine the Internal Surfaces of 1 Valve	*	100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1300	EXAM CATEGORY B-N-1, INTERIOR OF REACTOR VESSEL; B-N-2, INTEGRALLY WELDED CORE SUPPORT STRUCTURES AND INTERIOR ATTACHMENTS TO REACTOR VESSELS; B-N-3, REMOVABLE CORE SUPPORT STRUCTURES								
1310	REACTOR VESSEL VESSEL INTERIOR								
	1. Reactor Vessel	Examine the areas above and below the reactor core that are made accessible for examination by removal of components during normal refueling outages.		VT-3	Accessible Areas	33% 33% 34%	*One *Two *Three	33 66 100	*EXAMINE AT 1st REFUELING OUTAGE, AND SUBSEQUENTLY AT 3-YEAR INTERVALS
1320	REACTOR VESSEL (BWR) INTERIOR ATTACHMENTS	N/A							
1321	CORE SUPPORT STRUCTURE	N/A							
1322									
1330	INTERIOR ATTACHMENTS WITHIN BELTLINE REGION	None	-	-	-	-	-	-	
1331	INTERIOR ATTACHMENTS BEYOND BELTLINE REGION	Examine the accessible welds and the surrounding area.		VT-3	Accessible Welds	100%	**	100	** BY THE END OF THE INTERVAL
1332	CORE SUPPORT STRUCTURE	Examine the accessible core support structure		VT-3	Accessible Surfaces	100%	**	100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1400	EXAM CATEGORY B-O; PRESSURE RETAINING WELDS IN CONTROL ROD HOUSINGS								
1410	REACTOR VESSEL WELDS IN CRD HOUSING								ITEM B14.10 COMBINED FOR PERCENTAGE
	2- Reactor Vessel Closure Head CEDM Housings	Lower Housing Welds	Housings #66 - #97	Vol	97 *	0 0 0	One Two Three	- - -	*32 PERIPHERAL (126 TOTAL WELDS)
	2- Reactor Vessel Closure Heads CEDM Housings	Upper Housing Welds	Housings #66 - #97	Vol	97 *	1 2 3	One Two Three	- - -	**INCLUDES 2 RVLMS TRANSI-TION HUBS.
	2- Reactor Vessel Closure Heads CEDM Housings	Tube Housing Lower Weld	Housings ** #66 - #97	Vol	97 *	2 2 3	One Two Three	3 6 11	
	2-Reactor Vessel Closure Heads CEDM Housings	Tube Housing Upper Weld	Housings #66 - #97	Vol	97 *	0 0 0	One Two Three	- - -	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SECIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1500	EXAMINATION CATEGORY B-P, ALL PRESSURE RETAINING COMPONENTS								
	SYSTEM LEAKAGE TEST								
1510	Reactor Vessel	Pressure	-	VT-2	-	Entire Pressure	*	100	* EACH REFUELING OUTAGE
1520	Pressurizer	Retaining				Retaining Boundary	***		
1530	Steam Generators	Boundary				IWA-5000			
1540	Heat Exchangers					IWB-5000			
1550	Piping								
1560	Pumps								
1570	Valves								
	SYSTEM HYDRO-TEST								
1511	Reactor Vessel	Pressure	-	VT-2	-	Entire Pressure	**	100	** BY THE END OF THE INTERVAL
1521	Pressurizer	Retaining				Retaining Boundary			
1531	Steam Generators	Boundary				IWA-5000			
1541	Heat Exchangers					IWB-5000			
1551	Piping								*** PERFORM WALKDOWN AT THE BEGINNING OF EACH REFUELING OUTAGE FOR GENERIC LETTER 88-05. IN ADDITION, WALKDOWNS SHOULD ALSO BE PERFORMED FOR SHUTDOWNS FOLLOWING OPERATION LONGER THAN APPROXIMATELY 6 MONTHS IN MODE 1 OR 2.
1561	Pumps								
1571	Valves								

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
B 1600	EXAMINATION CATEGORY B-Q, STEAM GENERATOR TUBING								
1610	N/A								
1620	Per ASME Section XI and 10 CFR 50, All Eddy Current Examinations of Steam Generator Tubing will be performed in accordance with PVNGS Technical Specifications								

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
*	EXAM CATEGORY F-A;								REQUEST FOR RELIEF #1 & #3
F 110	PLATE AND SHELL								
F 120	TYPE SUPPORTS								* INCLUDES EXAM ITEMS IDENTIFIED AS APPLICABLE.
F 130	and								
F 140	EXAM CATEGORY F-B;								** NDE METHOD INCLUDES VT-4 EXAMS, WHERE APPLICABLE.
F 210	LINEAR TYPE SUPPORTS								
F 220	and								
F 230	EXAM CATEGORY F-C;								
F 240	COMPONENT STANDARD								
F 310	SUPPORTS								
F 320									
F 330				**					
F 340	1- Reactor Vessel	Support	SN 78173	VT-3	4	0 ***	One	0	*** REQUEST FOR RELIEF #6.
F 350		Columns				0	Two	0	
						0	Three	0	
	3- Steam Generator 1	Support Skirt	SN 78273-1	VT-3	1	1	One	100	
						0	Two	100	
						0	Three	100	
	4- Steam Generator-2	Support Skirt	SN 78273-2	VT-3	1	0	One	-	
						1	Two	100	
						0	Three	100	
	5- Pressurizer	Support Skirt	SN 78373	VT-3	1	0	One	-	
						0	Two	-	
						1	Three	100	
	16-Reactor Coolant Pump 1A	Vertical and Lateral Supports	SN 1109-1A	VT-3	10	2	One	20	
						4	Two	60	
						4	Three	100	
	17-Reactor Coolant Pump 1B	Vertical and Lateral Supports	SN 1109-1B	VT-3	10	2	One	20	
						4	Two	60	
						4	Three	100	
	18-Reactor Coolant Pump 2A	Vertical and Lateral Supports	SN 1109-2A	VT-3	10	4	One	40	
						2	Two	60	
						4	Three	100	
	19-Reactor Coolant Pump 2B	Vertical and Lateral Supports	SN 1109-2B	VT-3	10	4	One	40	
						2	Two	60	
						4	Three	100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F 110	CONTINUED								
F 120									
F 130									
F 140	20-Pressurizer Surge Line	Supports	RC-28-12"	VT-3	7	2	One	29	
F 210						2	Two	57	
F 220						3	Three	100	
F 230									
F 240	21-Shutdown Cooling	Supports	RC-51-16"	VT-3	22	7	One	32	
F 310	Loop 1		SI-240-16"			7	Two	64	
F 320						8	Three	100	
F 330									
F 340	22-Shutdown Cooling	Supports	RC-68-16"	VT-3	13	4	One	31	
F 350	Loop 2	(1-B10.10)	SI-193-16"			5	Two	69	
						4	Three	100	
	23-Safety Injection 1A	Supports	SI-207-14"	VT-3	6	1	One	17	
			SI-203-12"			2	Two	50	
						3	Three	100	
	24-Safety Injection 1B	Supports	SI-223-14"	VT-3	8	2	One	25	
		(1-B10.10)	SI-221-12"			2	Two	50	
						4	Three	100	
	25-Safety Injection 2A	Supports	SI-160-14"	VT-3	7	2	One	29	
		(1-B10.10)	SI-156-12"			3	Two	71	
						2	Three	100	
	26-Safety Injection 2B	Supports	SI-179-14"	VT-3	8	3	One	38	
		(1-B10.10)	SI-175-12"			3	Two	75	
						2	Three	100	
	27-Pressurizer Spray	Supports	RC-62-3"	VT-3	26	9	One	35	
	Loop 1A		RC-16-3"			9	Two	69	
						8	Three	100	
	28-Pressurizer Spray	Supports	RC-17-3"	VT-3	28	9	One	32	
	Loop 1B		RC-18-3"			8	Two	61	
			RC-18-4"			11	Three	100	
	29-Pressurizer Spray	Supports	RC-18-4"	VT-3	3	2	One	67	
	Loop 1B and					1	Two	100	
	Combined					0	Three	100	
	30-Aux Pressurizer Spray	Supports	CH-521-2"	VT-3	2	0	One	-	
						0	Two	-	
						2	Three	100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F 110	CONTINUED								
F 120									
F 130	32-Drain Line	Supports	RC-60-2"	VT-3	2	2	One	100	
F 140	Loop 1A					0	Two	100	
F 210						0	Three	100	
F 220									
F 230	33-Drain Line	Supports	RC-58-2"	VT-3	2	0	One	-	
F 240	Loop 1B					2	Two	100	
F 310						0	Three	100	
F 320									
F 330	34-Drain Line	Supports	RC-96-2"	VT-3	2	0	One	-	
F 340	Loop 2A					2	Two	100	
F 350						0	Three	100	
	35-Drain Line	Supports	RC-89-2"	VT-3	2	0	One	-	
	Loop 2B					0	Two	-	
						2	Three	100	
	36-Letdown Line	Supports	RC-91-2"	VT-3	30	9	One	30	
		(2-B10,10)	CH-001-2"			10	Two	63	
						11	Three	100	
	37-Charging Line	Supports	CH-5-3"	VT-3	43	14	One	33	
						14	Two	65	
						15	Three	100	
	38-Drain Line	Supports	RC-70-2"	VT-3	2	0	One	0	
	Loop 1					0	Two	0	
						2	Three	100	
	39-HPSI Long Term Recirculation	Supports	SI-248-3"	VT-3	14	4	One	29	
	Loop 1					5	Two	62	
						5	Three	100	
	40-HPSI Long Term Recirculation	Supports	SI-199-3"	VT-3	9	3	One	33	
	Loop 2					4	Two	78	
						2	Three	100	
N/A	Snubbers: IWF-5000 All inservice testing requirements will be performed in accordance with PVNGS Technical Specifications.								REQUEST FOR RELIEF #1.

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
N/A	REACTOR COOLANT PUMP FLYWHEEL EXAMINATIONS REG. GUIDE 1.14.								REFERENCE PVNGS TECHNICAL SPECIFICATION 4.4.9
	16-Reactor Coolant Pump 1A, 17 Reactor Coolant Pumps 1B, 18-Reactor Coolant Pump 2A, 19-Reactor Coolant Pump 2B Flywheels	Flywheels		Vol*	4	4 4	One Two	100 100 ED	* AN ULTRASONIC EXAMINATION WILL BE PERFORM-OF THE AREAS OF HIGHER STRESS CONCENTRATION AT THE BORE AND KEYWAYS.
				S, VOL **	4	4	Three	100	** A SURFACE EXAM OF ALL EX-POSED SURFACES AND A COMPLETE ULTRASONIC EXAM TO THE EXTENT PRACTICAL WILL BE PERFORMED.

SECTION 5.0
ASME CLASS 2
EXAMINATION SUMMARY

INDEX

TABLE		EXAM CATEGORY
2-1	C-A,	Pressure Retaining Welds in Pressure Vessels
2-2	C-B,	Pressure Retaining Nozzle Welds in Vessels
2-3	C-C,	Integral Attachments for Vessels, Piping, Pumps, and Valves
2-4	C-D,	Pressure Retaining Bolting Exceeding 2 Inch in Diameter
2-5	C-F,	Pressure Retaining Welds in Piping
2-6	C-G,	Pressure Retaining Welds in Pumps and Valves
2-7	C-H,	All Pressure Retaining Components
2-IWF	F-A,	Plate to Shell Type Supports
	F-B,	Linear Type Supports
	F-C,	Component Standard Supports

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C100	EXAM. CATEGORY C-A: PRESSURE RETAINING WELDS IN PRESSURE VESSELS								
	STEAM GENERATORS								MULTIPLE VESSELS PERCENTAGE COMBINED
110	SHELL CIRCUMFEREN-TIAL WELDS								
	41-Steam Generator 1	Shell to Conical Welds	SN-78273-1	Vol	2	1* 0 0	One Two Three	50 - -	*50% EACH WELD
	42-Steam Generator 2	Shell to Conical Welds	SN-78273-2	Vol	2	0 0 1**	One Two Three	- - 100	**50% EACH WELD
120	HEAD CIRCUMFEREN-TIAL WELDS								
	41-Steam Generator 1	Head to Shell Weld	SN-78273-1	Vol	1	50% 0 0	One Two Three	50 - -	
	42-Steam Generator 2	Head to Shell Weld	SN-78273-2	Vol	1	0 0 50%	One Two Three	- - 100	
130	TUBESHEET-TO-SHELL WELD								
	41-Steam Generator 1	Outside Shell and Stay Cylinder	SN-78273-1	Vol	2	50%* 0 0	One Two Three	25 - -	*OUTSIDE SHELL WELDS
	42-Steam Generator 2	Outside Shell and Stay Cylinder	SN-78273-2	Vol	2	0 50%* 1**	One Two Three	- 50 100	**STAY CYLINDER EXAM

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	REGENERATIVE HEAT EXCHANGER								SINGLE VESSEL
110	SHELL CIRCUMFERENTIAL WELDS								
	68-Regenerative Heat Exchanger	Butt Welds	SN-79119	Vol	3	1 1 1	One Two Three	33 66 100	
120	HEAD CIRCUMFERENTIAL WELDS								
	68-Regenerative Heat Exchanger	Head to Shell	SN-79119	Vol	2	1 0 1	One Two Three	50 50 100	
130	TUBESHEET-TO-SHELL WELDS								
	68-Regenerative Heat Exchanger	Butt Welds	SN-79119	Vol	4	0 2 2	One Two Three	0 50 100	
	LETDOWN HEAT EXCHANGER								SINGLE VESSEL
110	SHELL CIRCUMFERENTIAL WELDS								
	69-Letdown Heat Exchanger	Shell to Flange	SN-N2370	Vol	1	50% 0 50%	One Two Three	50 50 100	
120	HEAD CIRCUMFERENTIAL WELDS	None	-	-	-	-	-	-	
130	TUBESHEET-TO-SHELL WELD								
	69-Letdown Heat Exchanger	Butt Weld	SN-N2370	Vol	1	50% 0 50%	One Two Three	50 50 100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
	SHUTDOWN COOLING HEAT EXCHANGERS								MULTIPLE VESSELS: PERCENTAGE COMBINED
110	SHELL CIRCUMFERENTIAL WELDS								
	84-Shutdown Cooling Heat Exchanger Room A	Shell to Flange	SN-18341	Vol	1	0 50% 0	One Two Three	- 50 50	
	87-SD Cooling Heat Exchanger B	Shell to Flange	SN-18342	Vol	1	0 0 50%	One Two Three	- - 100	
120	HEAD CIRCUMFERENTIAL WELDS	None	-	-	-	-	-	-	
130	TUBESHEET-TO-SHELL WELD								
	84-SD Cooling Heat Exchanger Room A	Butt Weld	SN-18341	Vol	1	0 50% 0	One Two Three	- 50 50	
	87-SD Cooling Heat Exchanger B	Butt Weld	SN-18342	Vol	1	0 0 50%	One Two Three	- - 100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
C200	EXAM CATEGORY C-B: PRESSURE RETAINING NOZZLE WELDS IN VESSELS								
210	NOZZLE IN VESSELS ≤ 1/2 IN NOMINAL THICKNESS	None	-	-	-	-	-	-	
220	NOZZLES WITHOUT REINFORCING PLATE IN VESSELS > 1/2 IN. NOMINAL THICKNESS								INSIDE RADIUS ON PIPING ONLY GREATER THAN 12" DIAMETER MULTIPLE VESSELS: PERCENTAGE COMBINED
221 & 222	NOZZLE-TO-SHELL (OR HEAD) WELDS AND NOZZLE INSIDE RADIUS SECTION								
	41-Steam Generator 1	Nozzle to Vessel Welds	SN-78273-1	S, Vol	7	1 0 2	One Two Three	29 - 100	
	42-Steam Generator 2	Nozzle to Vessel Welds	SN-78273-2	S, Vol	7	1 2 1	One Two Three	- 57 -	
	84-SD Cooling Heat Exchanger Room A	Nozzle to Shell Welds	SN-18341	S, Vol	2	0 1 0	One Two Three	- 50 -	MULTIPLE VESSELS PERCENTAGE COMBINED
	87-SD Cooling Heat Exchanger B	Nozzle to Shell Welds	SN-18342	S, Vol	2	0 0 1	One Two Three	- - 100	

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
230	NOZZLES WITH REINFORCING PLATE IN VESSELS > 1/2 IN. NOMINAL THICKNESS								
231 & 232	REINPORCING PLATE WELDS TO NOZZLE AND VESSEL	None	-	-	-	-	-	-	
	NOZZLE-TO-SHELL (OR HEAD) WELDS								
	INSIDE OF VESSEL ACCESSIBLE	None	-	-	-	-	-	-	
	INSIDE OF VESSEL INACCESSIBLE	None	-	-	-	-	-	-	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
C300	EXAM CATEGORY C-C INTEGRAL ATTACHMENTS FOR VESSELS, PIPING PUMPS AND VALVES								
310	PRESSURE VESSELS INTEGRALLY WELDED ATTACHMENTS								
	41-Steam Generator 1	2-Snubber Lugs	SN-78273-1	S	2	1 0 0	One Two Three	50 - -	MULTIPLE VESSELS PERCENTAGE COMBINED
	42-Steam Generator 2	2-Snubber Lugs	SN-78273-2	S	2	0 1 0	One Two Three	- 100 -	
	68-Regenerative Heat Exchanger	2-Supports	SN-79119	S	2	0 1 1	One Two Three	- 50 100	SINGLE VESSEL
320	PIPING INTEGRALLY WELDED ATTACHMENTS								
	43-Main Steam SG 1 East 90° Inside Containment	Attachments	SG-36	S	6	1 1 4	One Two Three	17 33 100	
	44-Main Steam SG 1 West 270° Inside Containment	Attachments	SG-33	S	5	0 3 2	One Two Three	- 60 100	
	45-Main Steam SG 2 East 270° Inside Containment	Attachments	SG-42	S	5	3 1 1	One Two Three	60 80 100	
	46-Main Steam SG 2 West 90° Inside Containment	Attachments	SG-45	S	5	0 2 3	One Two Three	- 40 100	

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ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
320	CONTINUED								
	54-Feedwater SG No. 1 Inside Containment	Attachments	SG-002	S	1	0 0 1	One Two Three	- - 100	
	53-Feedwater SG No. 2 Inside Containment	Attachments	SG-005	S	2	1 0 1	One Two Three	50 50 100	
	62-Auxiliary Feedwater SG 1	Attachments	AF-018	S	1	0 1 0	One Two Three	- 100 100	
	64-Blowdown SG 1 Inside Containment	Attachments	SG-39 SG-53	S	5	3 1 1	One Two Three	40 80 100	
	65-Blowdown SG 2 Inside Containment	Attachments	SG-48 SG-52	S	7	2 3 2	One Two Three	29 71 100	
	71-LPSI Pump Room A Discharge	Attachments	SI-87	S	1	1	One	-	SI SYSTEM %'S COMBINED
	76-Containment Spray Pump Room A Suction	Attachments	SI-9	S	1	1 1	One	-	
	77-Containment Spray Pump Room A Discharge	Attachments	SI-79	S	1	1	Three	-	
	80-Containment Spray Pump Room B Discharge	Attachments	SI-119	S	1	1	Three	-	
	82-Shutdown Cooling Heat Exchanger Room A	Attachments	SI-78	S	1	1	Three	-	
	83-Shutdown Cooling Heat Exchanger Room A	Attachments	SI-70 SI-87 SI-90	S	4	2 2	Two Three	-	
	86-Shutdown Cooling Heat Exchanger Room B	Attachments	SI-72	S	2	2	Three	-	
	88-East Wrap	Attachments	SI-72	S	1	1	One	-	
	89-East Wrap	Attachments	SI-194	S	1	1	One	-	

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ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
320	CONTINUED								
	91-West Wrap	Attachments	SI-70	S	4	4	One	-	
	92-West Wrap	Attachments	SI-239 SI-241	S	3	1 2	One Two	- -	
	93-West Wrap	Attachments	SI-89	S	1	1	Two	-	
	94-A Train Misc. Pipe Chases & 88' Pipe Tunnel	Attachments	SI-70	S	2	2	Two	-	
	95-B Train Misc. Pipe Chases & 88' Pipe Tunnel	Attachments	SI-194	S	1	1	Three	-	
	96-Containment LPSI Header to Loop 1A	Attachments	SI-202	S	1	1	Three	-	
	99-Containment LPSI Header to Loop 2B	Attachments	SI-174	S	1	1	Two	-	
	100-Containment LPSI Train A Suction	Attachments	SI-7 SI-369	S	2	1 1	One Two	- -	
	101-Containment LPSI Train B Suction	Attachments	SI-30	S	1	1	Three	-	
	Total Safety Injection			S	29	10 9 10	One Two Three	34 66 100	
330	PUMPS INTEGRALLY WELDED ATTACHMENTS								
	72-LPSI Pump A	Attachment Lugs	SN 0876-36	S	3	2 1 0	One Two Three	66 100 100	
	75-LPSI Pump B	Attachment Lugs	SN 0876-37	S	3	0 1 2	One Two Three	- 33 100	
	78-Containment Spray Pump A	Attachment Lugs	SN 0876-38	S	3	2 1 0	One Two Three	66 100 100	

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
330	CONTINUED								
	81-Containment Spray Pump B	Attachment Lugs	SN 0876-39	S	3	0 1 2	One Two Three	- 33 100	
340	VALVES INTEGRALLY WELDED ATTACHMENTS	None	-	-	-	-	-	-	

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
C400	EXAM CATEGORY C-D; PRESSURE RETAINING BOLTING EXCEEDING 2 IN. IN DIAMETER								
410	PRESSURE VESSELS BOLTS AND STUDS	None	-	-	-	-	-	-	
420	PIPING BOLTS AND STUDS	None	-	-	-	-	-	-	
430	PUMPS BOLTS AND STUDS	None	-	-	-	-	-	-	
440	VALVES BOLTS AND STUDS		-	-	-	-	-	-	
	47-Main Steam SG 1 West 270° MSSS	Bonnet Bolts	UV-170	Vol	20	20	One	(25)	ITEM C440 COMBINED FOR PERCENTAGE
	48-Main Steam SG 1 East 90° MSSS	Bonnet Bolts	UV-180	Vol	20	20	One	(25)	
	49-Main Steam SG 2 East 270° MSSS	Bonnet Bolts	UV-171	Vol	20	20	Three	(100)	
	50-Main Steam SG 2 West 90° MSSS	Bonnet Bolts	UV-181	Vol	20	20	Three	(100)	
	56-Feedwater SG No. 1 MSSS	Bonnet Bolts	UV-132 UV-174	Vol Vol	20 20	20 20	Two Two	(50) (90)	
	57-Feedwater SG No. 2 MSSS	Bonnet Bolts	UV-137 UV-177	Vol Vol	20 20	20 20	Three Three	(100) (100)	

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ASME CLASS 2

ASME ITEM NO.	ZONE•COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
C300	EXAMINATION CATEGORY C-F, PRESSURE RETAINING WELDS IN PIPING								RHR, CHR, & ECCS SYSTEMS ARE SCHEDULED PER 10 CFR 50 REQUIREMENTS AND ARE IDENTIFIED IN TABLE 2-CFR
510	PIPING WELDS ≤ 1/2 IN. OR LESS NOMINAL WALL THICKNESS								
511 & 512	CIRCUMFERENTIAL AND *LONGITUDINAL WELDS								*2.5T MIN. FROM EACH SCHEDULED CIRC. WELD INTERSECTION WILL BE EXAMINED
	53-Steam to Aux Feedwater System	Butt Welds	SG-81-6"	S	14	**	-	-	
			SG-83-6"	S	14	**	-	-	
	58-Aux & Downcomer Feedwater SG 1 Inside Containment	Butt Welds	SG-8-6"	S***	3	1	One	4	
			SG-8-8"	S	23	2 (5)	Two	12	**REQUIREMENTS IDENTIFIED IN TABLE 2-AHE
						0 (5)	Three	12	
	59-Aux & Downcomer Feedwater SG-2 Inside Containment	Butt Welds	SG-11-6"	S***	3	1 (1)	One	4	***AN AUGMENTED [ref()] VOL EXAMINATION WILL BE PERFORMED EACH PERIOD (SEE IEB 79-13 AND SER 83-07)
			SG-11-8"	S	22	3 (5)	Two	15	
						1 (5)	Three	19	
520	PIPING WELDS > 1/2 IN. NOMINAL WALL THICKNESS								
521 & 522	CIRCUMFERENTIAL AND *LONGITUDINAL WELDS								*2.5T MIN. FROM EACH SCHEDULED CIRC. WELD INTERSECTION WILL BE EXAMINED
	43-Main Steam SG 1 East	Butt Welds	SG-36-28"	S, VOL	23	3	One	13	
						0	Two	13	
						2	Three	22	
	44-Main Steam SG 1 West	Butt Welds	SG-33-28"	S, VOL	20	3	One	15	
						1	Two	20	
						2	Three	30	

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ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
521	CONTINUED								
522									
	45-Main Steam SG 2 East	Butt Welds	SG-42-28"	S, Vol	18	0	One	-	
	270° Inside Containment					2	Two	11	
						3	Three	28	
	46-Main Steam SG 2 West	Butt Welds	SG-43-28"	S, Vol	20	2	One	10	
	90° Inside Containment					2	Two	20	
						1	Three	25	
	47-Main Steam SG 1 West	Butt Welds	SG-206-28"	S, Vol	5	*	-	-	
	270° MSSS		SG-206-12"	S, Vol	2	*			
			SG-206-6"	S, Vol	5	*			
	48-Main Steam SG 1 East	Butt Welds	SG-207-28"	S, Vol	5	*	-	-	
	90° MSSS		SG-207-12"	S, Vol	2	*			
			SG-207-6"	S, Vol	5	*			
	49-Main Steam SG 2 East	Butt Welds	SG-208-28"	S, Vol	5	*	-	-	*REQUIRE-MENTS IDENT-IFIED IN TA-BLE 2-AHE
	270° MSSS		SG-208-12"	S, Vol	2	*			
			SG-208-6"	S, Vol	5	*			
	50-Main Steam SG 2 West	Butt Welds	SG-209-28"	S, Vol	5	*	-	-	
	90° MSSS		SG-209-12"	S, Vol	2	*			
			SG-209-6"	S, Vol	5	*			
	51-Atmospheric Dump No. 1	Butt Welds	SG-59-12"	S, Vol	13	*	-	-	
			SG-70-12"	S, Vol	16	*			
	52-Atmospheric Dump No. 2	Butt Welds	SG-84-12"	S, Vol	16	*	-	-	
			SG-103-12"	S, Vol	13	*			
	54-Feedwater SG No. 1	Butt Welds	SG-2-24"	S, Vol	33	5	One	8	
	Inside Containment		SG-2-16"	S, Vol	4	5	Two	16	
			SG-2-14"	S, Vol	11	6	Three	25	
			SG-13-16"	S, Vol	4				
			SG-13-14"	S, Vol	11				
	55-Feedwater SG No. 2	Butt Welds	SG-5-24"	S, Vol	31	5	One	9	
	Inside Containment		SG-5-16"	S, Vol	3	5	Two	17	
			SG-5-14"	S, Vol	10	5	Three	26	
			SG-14-16"	S, Vol	4				
			SG-14-14"	S, Vol	10				

APS PALO VERDE NUCLEAR GENERATING STATION 10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
521 522	CONTINUED								
	56-Feedwater SG No. 1 MSSS	Butt Welds	SG-201-24" SG-202-24"	S, Vol S, Vol	2 3	* *	-	-	
	57-Feedwater SG No. 2 MSSS	Butt Welds	SG-204-24" SG-205-24"	S, Vol S, Vol	2 3	* *	-	-	*REQUIREMENTS IDENTIFIED IN TABLE 2-AHE
	58-Aux & Downcomer Feedwater SG 1 Inside Containment	Butt Welds	SG-8-6" AF-4-6"	S, Vol S, Vol	1 13**	3 0 2	One Two Three	21 21 36	**INCLUDES 1 DISSIMILAR WELD
	59-Aux & Downcomer Feedwater SG 2 Inside Containment	Butt Welds	SG-11-6" AF-6-6"	S, Vol S, Vol	1 12**	2 2 1	One Two Three	15 31 38	
	60-Downcomer Feedwater SG 1 MSSS	Butt Welds	SG-206-8" SG-008-8"	S, Vol	2 4	*	-	-	
	61-Downcomer Feedwater SG 2 MSSS	Butt Welds	SG-203-8" SG-11-8"	S, Vol	2 4	*	-	-	
	62-Auxiliary Feedwater SG 1 MSSS	Butt Welds	AF-4-6" AF-18-6"	S, Vol S, Vol	7 11	1 2 2	One Two Three	6 17 28	
	63-Auxiliary Feedwater SG 2 MSSS	Butt Welds	AF-6-6" AF-16-6"	S, Vol S, Vol	13 3	1 2 2	One Two Three	6 19 31	
	64-Blowdown SG 1 Inside Containment	Butt Welds	SG-39-6" SG-53-6"	S, Vol S, Vol	37 14	2 4 4	One Two Three	4 12 20	
	65-Blowdown SG 2 Inside Containment	Butt Welds	SG-48-6" SG-52-6"	S, Vol S, Vol	34 14	4 3 4	One Two Three	8 15 22	

APS PALO VERDE NUCLEAR GENERATING STATION 10 YEAR INTERVAL - EXAMINATION SUMMARY

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
521	CONTINUED								
522	66-Blowdown SG 1 MSSS	Butt Welds	SG-39-6"	S, Vol	3	*	-	-	*REQUIREMENTS IDENTIFIED IN TABLE 2-AHE
	67-Blowdown SG 2	Butt Welds	SG-48-6"	S, Vol	3	*	-	-	
530	PIPE BRANCH CONNECTIONS > 4 IN NOMINAL PIPE SIZE								**2.5T MIN FROM EACH SCHEDULED BRANCH WELD INTERSECTION WILL BE EXAMINED
531	CIRCUMFERENTIAL AND								
532	**LONGITUDINAL WELDS								
	47-Main Steam SG 1 West 270° MSSS	Sweepolets	SG-206-28	S	7	*	-	-	
	48-Main Steam SG 1 East 90° MSSS	Sweepolets	SG-207-28	S	8	*	-	-	
	49-Main Steam SG 2 East 270° MSSS	Sweepolets	SG-208-28	S	8	*	-	-	*REQUIREMENTS IDENTIFIED IN TABLE 2-AHE
	50-Main Steam SG 2 West 90° MSSS	Sweepolets	SG-209-28	S	7	*	-	-	

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE•COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
C600	EXAM CATEGORY C-G: PRESSURE RETAINING WELDS IN PUMPS AND VALVES								
610	PUMPS PUMP CASING WELDS	None	-	-	-	-	-	-	
620	VALVES VALVE BODY WELDS								
	Dresser, 6" x 10" Pressure Safety Main Steam Valves	Zone 47 Zone 48 Zone 49 Zone 50	SG-206-28" SG-207-28" SG-208-28" SG-209-28"	S S S S	5 5 5 5	Examine the weld in 1 valve	*	100	*BY THE END OF THE INTERVAL
	Borg Warner, 16" Gate Valves LPSI Pump Suction	Zone 92 Zone 89	SI-241-16" SI-194-16"	S S	1 1	Examine the weld in 1 valve	*	100	
	Borg Warner, 6" Gate Valves SDCHX Outlet	Zone 83 Zone 86	SI-131-6" SI-131-6"	S S	1 1	Examine the weld in 1 valve	*	100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
C700	EXAM CATEGORY C-H, ALL PRESSURE RETAINING COMPONENTS								
	SYSTEM FUNCTIONAL TESTS***								
710 730 750 770	Pressure Vessels Piping Pumps Valves	Pressure Retaining Boundary	-	VT-2	-	Entire Pressure retaining boundary IWA-5000 IWC-5000	*	100	*EACH INSPECTION PERIOD
	SYSTEM HYDRO-TESTS								
720 740 760 780	Pressure Vessels Piping Pumps Valves	Pressure Retaining Boundary	-	VT-2	-	Entire Pressure retaining boundary IWA-5000 IWC-5000	**	100	**EACH INSPECTION INTERVAL ***REQUEST FOR RELIEF #7

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10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
*	EXAM CATEGORY F-A;								REQUEST FOR
F1.10	PLATE AND SHELL								RELIEF #1&3
F1.20	TYPE SUPPORTS								
F1.30	and								*INCLUDES
F1.40	EXAM CATEGORY F-B;								EXAM ITEMS
F2.10	LINEAR TYPE SUPPORTS								IDENTIFIED
F2.20	and			**					AS APPLI-
F2.30	EXAM CATEGORY F-C;								CABLE
F2.40	COMPONENT STANDARD								**NDE METHOD
F3.10	SUPPORTS								INCLUDES
F3.20									VT-4 EXAMS,
F3.30									WHERE
F3.40	41-Steam Generator 1	2-Snubbers	SN-78273-1	VT-3	2	2	One	100	APPLICABLE
F3.50						0	Two	100	
						0	Three	100	
	42-Steam Generator 2	2-Snubbers	SN-78273-2	VT-3	2	0	One	-	
						2	Two	100	
						0	Three	100	
	43-Main Steam SG 1 East 90° Inside Containment	Supports	SG-36	VT-3	9	3	One	33	
						2	Two	56	
						4	Three	100	
	44-Main Steam SG 1 West 270° Inside Containment	Supports	SG-33	VT-3	10	2	One	20	
						5	Two	70	
						3	Three	100	
	45-Main Steam SG 2 East 270° Inside Containment	Supports	SG-42	VT-3	9	3	One	33	
						3	Two	67	
						3	Three	100	
	46-Main Steam SG 2 West 90° Inside Containment	Supports	SG-45	VT-3	10	2	One	20	
						5	Two	70	
						3	Three	100	
	47-Main Steam SG 1 West 270° MSSS	Supports	SG-206	VT-3	1	1	One	100	
						0	Two	100	
						0	Three	100	
	48-Main Steam SG 1 East 90° MSSS	Supports	SG-207	VT-3	1	0	One	-	
						1	Two	100	
						0	Three	100	
	49-Main Steam SG 2 East 270° MSSS	Supports	SG-208	VT-3	1	0	One	-	
						0	Two	-	
						1	Three	100	

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ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110	CONTINUED								
F120	50-Main Steam SG 2 West	Supports	SG-209	VT-3	1	0	One	-	
F130	90° MSSS					0	Two		
F140						1	Three	100	
F210									
F220	51-Atmospheric Dump No. 1	Supports	SG-59	VT-3	2	1	One	50	
F230			SG-70			1	Two	100	
F240						0	Three	100	
F310									
F320	52-Atmospheric Dump No. 2	Supports	SG-84	VT-3	2	0	One	-	
F330	SG-2		SG-103			0	Two	-	
F340						2	Three	100	
F350									
	53-Steam to Aux	Supports	SG-81	VT-3	8	4	One	50	
	Feedwater System		SG-83			2	Two	75	
						2	Three	100	
	54-Feedwater SG No. 1	Supports	SG-2	VT-3	20	7	One	35	
	Inside Containment		SG-13			7	Two	70	
						6	Three	100	
	55-Feedwater SG No. 2	Supports	SG-5	VT-3	20	9	One	45	
	Inside Containment		SG-14			7	Two	80	
						4	Three	100	
	56-Feedwater SG No. 1	Supports	SG-202	VT-3	1	0	One	-	
	MSSS.					1	Two	100	
						0	Three	100	
	57-Feedwater SG No. 2	Supports	SG-205	VT-3	1	0	One	-	
	MSSS					0	Two	-	
						1	Three	100	
	58-Aux & Downcomer Feedwater SG 1	Supports	SG-8	VT-3	22	7	One	32	
	Inside Containment		AF-4			7	Two	64	
						8	Three	100	
	59-Aux & Downcomer Feedwater SG 2	Supports	SG-11	VT-3	22	6	One	27	
	Inside Containment		AF-6			6	Two	55	
						10	Three	100	
	60-Downcomer Feedwater SG 1	Supports	SG-200	VT-3	3	1	One	33	
	MSSS					0	Two	33	
						2	Three	100	
	61-Downcomer Feedwater SG 2	Supports	SG-203	VT-3	3	0	One	-	
	MSSS					2	Two	66	
						1	Three	100	

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ASME ITEM NO.	ZONE•COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110	CONTINUED								
F120									
F130									
F140	62-Auxiliary Feedwater SG 1	Supports	AF-4	VT-3	4	1	One	25	
F210	MSSS		AF-18			1	Two	50	
F220						2	Three	100	
F230									
F240	63-Auxiliary Feedwater SG 2	Supports	AF-6	VT-3	5	2	One	40	
F310	MSSS		AF-16			2	Two	80	
F320						1	Three	100	
F330									
F340	64-Blowdown SG 1	Supports	SG-39	VT-3	37	12	One	32	
F350	Inside Containment		SG-53			13	Two	68	
						12	Three	100	
	65-Blowdown SG 2	Supports	SG-48	VT-3	36	12	One	33	
	Inside Containment		SG-52			11	Two	64	
						13	Three	100	
	68-Regenerative	Supports	SN-79119	VT-3	2	0	One	-	
	Heat Exchanger					1	Two	50	
						1	Three	100	
	70-LPSI Pump Room A	Supports	SI-67	VT-3	5	1	One	-	ALL SI (ZONES 70 THRU 101) COMBINED FOR PERCENTAGE.
	Suction		SI-241			4	Three	-	
			SI-307						
	71-LPSI Pump Room A	Supports	SI-78	VT-3	6	1	One	-	
	Discharge		SI-87			5	Two	-	
	72-LPSI Pump A	Supports	SN-0876-36	VT-3	3**	2	One	-	**3 PUMP SUPPORTS
						1	Two	-	
	73-LPSI Pump Room B	Supports	SI-34	VT-3	5	1	Two	-	
	Suction		SI-194			4	Three	-	
			SI-308						
	74-LPSI Pump Room B	Supports	SI-129	VT-3	6	6	Three	-	
	Discharge								

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APS PALO VERDE NUCLEAR GENERATING STATION 10 YEAR INTERVAL - EXAMINATION SUMMARY

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110	CONTINUED								
F120									
F130									
F140	75-LPSI Pump B	Supports	SN-0876-37	VT-3	3**	1	Two	-	
F210						2	Three	-	
F220									
F230									
F240	76-Containment Spray	Supports	SI-9	VT-3	5	1	One	-	**3 PUMP SUPPORTS
F310	Pump A Suction		SI-67			4	Three	-	
F320			SI-78						
F330									
F340	77-Containment Spray	Supports	SI-79	VT-3	10	4	One	-	
F350	Pump A Discharge		SI-82			3	Two	-	
						3	Three	-	
	78-Containment Spray	Supports	SN-0876-38	VT-3	3**	2	One	-	
	Pump A					1	Two	-	
	79-Containment Spray	Supports	SI-33	VT-3	8	3	One	-	
	Pump B Suction		SI-34			2	Two	-	
			SI-123			3	Three		
	80-Containment Spray	Supports	SI-119	VT-3	10	3	One	-	
	Pump B Discharge		SI-147			4	Two	-	
						3	Three	-	
	81-Containment Spray	Supports	SN-0876-39	VT-3	3**	1	Two	-	
	Pump B					2	Three	-	
	82-Shutdown Cooling A	Supports	SI-79	VT-3	5	3	One	-	
			SI-78			1	Two	-	
	83-Shutdown Cooling A	Supports	SI-70	VT-3	19	4	One	-	
			SI-87			3	Two	-	
			SI-90			12	Three	-	
			SI-89						
			SI-82						
	85-Shutdown Cooling B	Supports	SI-119	VT-3	9	3	One	-	
			SI-123			6	Two	-	
	86-Shutdown Cooling B	Supports	SI-72	VT-3	26	3	One	-	
			SI-134			7	Two	-	
			SI-147			16	Three	-	
			SI-135						
			SI-129						

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APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE•COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110	CONTINUED								
F120									
F130	88-East Wrap	Supports	SI-72	VT-3	14	8	One	-	
F140			SI-73			6	Three	-	
F210									
F220									
F230	89-East Wrap	Supports	SI-173	VT-3	5	4	One	-	
F240			SI-194			1	Three	-	
F310									
F320									
F330	90-East Wrap	Supports	SI-134	VT-3	2	2	Two	-	
F340									
F350	91-West Wrap	Supports	SI-70	VT-3	10	7	One	-	
			SI-71			2	Two	-	
						1	Three	-	
	92-West Wrap	Supports	SI-2	VT-3	12	5	One	-	
			SI-239			5	Two	-	
			SI-241			2	Three	-	
	93-West Wrap	Supports	SI-89	VT-3	4	2	Two	-	
						2	Three	-	
	94-A Train Misc. Pipe Chases & 88' Pipe Tunnel	Supports	SI-70	VT-3	15	3	One	-	
			SI-89			7	Two	-	
			SI-241			5	Three	-	
	95-B Train Misc. Pipe Chases & 88' Pipe Tunnel	Supports	SI-72	VT-3	18	6	One	-	
			SI-134			10	Two	-	
			SI-194			2	Three	-	
	96-Containment LPSI Header to Loop 1A	Supports	SI-202	VT-3	18	3	One	-	
						8	Two	-	
						7	Three	-	
	97-Containment LPSI Header to Loop 1B	Supports	SI-220	VT-3	27	10	One	-	
						7	Two	-	
						10	Three	-	
	98-Containment LPSI Header to Loop 2A	Supports	SI-155	VT-3	7	2	One	-	
						5	Two	-	
	99-Containment LPSI Header to Loop 2B	Supports	SI-174	VT-3	10	5	Two	-	
						5	Three	-	

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APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110	CONTINUED								
F120									
F130	100-Containment LPSI Train A Suction	Supports	SI-7	VT-3	3	2	One	-	
F140			SI-241			1	Two	-	
F210			SI-369						
F220									
F230	101-Containment LPSI Train B Suction	Supports	SI-30	VT-3	8	8	Three	-	
F240			SI-194						
F310			SI-368						
F320									
F330	SI SYSTEMS				277	79	One	29	
F340	ZONES (70-101)					89	Two	61	
F350	TOTALS					109	Three	100	

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SECTION 6.0
ASME CLASS 3
EXAMINATION SUMMARY

INDEX

TABLE		EXAM CATEGORY
3-1	D-A,	Systems in Support of Reactor Shutdown Function
	D-B,	Systems in Support of Emergency Core Cooling, Containment Heat Removal, Atmosphere Cleanup, and Reactor Heat Removal
	D-C,	Systems in Support of Kesidual Heat Removal from Spent Fuel Storage Pool
3-IWF	F-A,	Plate and Shell Type Supports
	F-B,	Linear Type Supports
	F-C,	Component Standard Supports

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 3

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
D120 thru D180 D220 thru D360 D320 thru D360	EXAMINATION CATEGORY D-A, SYSTEMS IN SUPPORT OF REACTOR SHUTDOWN FUNCTION AND EXAMINATION CATEGORY D-B, SYSTEMS IN SUPPORT OF EMERGENCY CORE COOLING, CONTAINMENT HEAT REMOVAL, ATMOSPHERE CLEANUP, AND REACTOR RESIDUAL HEAT REMOVAL. AND EXAMINATION CATEGORY D-C, SYSTEMS IN SUPPORT OF RESIDUAL HEAT REMOVAL FROM SPENT FUEL STORAGE POOL					ASME CLASS 3 SYSTEMS ARE IDENTIFIED ON THE ISI BOUNDARY DRAWINGS CONTAINED IN SECTION 10.0.			REQUEST FOR RELIEF #1&#3
	All Class 3 Systems (Except Auxiliary Feedwater)	Integrally Welded Attachments	All lines greater than 4" nominal pipe size	VT-3	All	100%	Each Inspection interval	100%	
	Auxiliary Feedwater Systems	Integrally Welded Attachments	All lines	VT-3	All	100%	Each Inspection Interval	100%	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 3

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
	EXAMINATION CATEGORY D-A, SYSTEMS IN SUPPORT OF REACTOR SHUTDOWN FUNCTION AND EXAMINATION CATEGORY D-B, SYSTEMS IN SUPPORT OF EMERGENCY CORE COOLING, CONTAINMENT HEAT REMOVAL, ATMOSPHERE CLEANUP, AND REACTOR RESIDUAL HEAT REMOVAL AND EXAMINATION CATEGORY D-C, SYSTEMS IN SUPPORT OF RESIDUAL HEAT REMOVAL FROM SPENT FUEL STORAGE POOL								
	SYSTEM INSERVICE TESTS OR FUNCTIONAL TESTS***								
D110 D210 D310	Pressure Retaining Components	Pressure Retaining Boundary	-	VT-2	-	Entire Pressure Retaining Boundary IWA-5000 IWD-5000	*	100	*EACH INSPECTION PERIOD.
	SYSTEM HYDRO-TESTS								
D110 D210 D310	Pressure Retaining Components	Pressure Retaining Boundary	-	VT-2	-	Entire Pressure Retaining Boundary IWA-5000 IWD-5000	**	100	**EACH INSPECTION INTERVAL. ***REQUEST FOR RELIEF #7 AND #8

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APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 3

TABLE 3-IWF
PAGE 1 OF 1

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
F110 F120 F130 F140 F210 F220 F230 F240 F310 F320 F330 F340 F350	EXAM CATEGORY F-A: PLATE AND SHELL TYPE SUPPORTS AND EXAM CATEGORY F-B: LINEAR TYPE SUPPORTS AND EXAM CATEGORY F-C: COMPONENT STANDARD SUPPORTS			**					*INCLUDES EXAM ITEMS IDENTIFIED AS APPLICABLE. **NDE METHOD INCLUDES VT-4 EXAMS, WHERE APPLICABLE.
	All Class 3 Systems (Except Auxiliary Feedwater)	Support Components	All lines greater than 4" nominal pipe size	VT-3	All	100%	Each Inspection Interval	100%	REQUEST FOR RELIEF #1 AND #3
	Auxiliary Feedwater Systems	Support Components	All lines	VT-3	All	100%	Each Inspection Interval	100%	

SECTION 7.0
AUGMENTED HIGH ENERGY PIPING

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
	AUGMENTED EXAMINATIONS OF HIGH ENERGY PIPING				(*)				(*)IDENTIFIES THE NUMBER OF WELDS THAT ARE NOT ASME CLASSIFIED
510	PIPING WELDS ≤ 1/2 IN. NOMINAL WALL THICKNESS								
511	CIRCUMFERENTIAL AND								**NONE
512	**LONGITUDINAL WELDS								
	51-Atmospheric Dump No. 1	Butt Welds	SG-95-4"	S, Vol	(20)	0	One	-	
	Bypass UV-180	4" x .337"				20	Two	100	
						0	Three	100	
	52-Atmospheric Dump No. 1	Butt Welds	SG-100-4"	S, Vol	(20)	0	One	-	
	Bypass UV-171	4" x .337"				0	Two	-	
						20	Three	100	
	53-Steam to Aux	Butt Welds	SG-81-6"	S, Vol	14	10	One	35	
	Feedwater	6" x .432"	SG-83-6"	S, Vol	14	9	Two	68	
						9	Three	100	
520	PIPING WELDS > 1/2 IN. NOMINAL WALL THICKNESS								
521	CIRCUMFERENTIAL AND								*100% OF ALL INTERSECTING LONGITUDINAL WELDS WILL BE EXAMINED
522	*LONGITUDINAL WELDS								
	47-Main Steam SG 1 West	Butt Welds	SG-206-28"	S, Vol	5(1)	13	One	100	
	270° MSSS		SG-206-12"	S, Vol	2	0	Two	100	
			SG-206-6"	S, Vol	5	0	Three	100	
	48-Main Steam SG 1 East	Butt Welds	SG-207-28"	S, Vol	5(1)	0	One	-	
	90° MSSS		SG-207-12"	S, Vol	2	13	Two	100	
			SG-207-6"	S, Vol	5	0	Three	100	
	49-Main Steam SG 2 East	Butt Welds	SG-208-28"	S, Vol	5(1)	0	One	-	
	270° MSSS		SG-208-12"	S, Vol	2	0	Two	-	
			SG-208-6"	S, Vol	5	13	Three	100	

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
521	CONTINUED								
522	50-Main Steam SG 2 West 90° MSSS	Butt Welds	SG-209-28"	S, Vol	5(1)	0	One	-	
			SG-209-12"	S, Vol	2	0	Two	-	
			SG-209-6"	S, Vol	5	13	Three	100	
	51-Atmospheric Dump No. 1	Butt Welds 12" x .844"	SG-59-12"	S, Vol	13	13	One	46	
			SG-70-12"	S, Vol	16	16	Two	100	
						0	Three	100	
	52-Atmospheric Dump No. 2	Butt Welds 12" x .844"	SG-84-12"	S, Vol	16	0	One	-	
			SG-103-12"	S, Vol	13	0	Two	-	
						29	Three	100	
	56-Feedwater SG No. 1 MSSS	Butt Welds	SG-201-24"	S, Vol	2	5	One	63	
			SG-202-24"	S, Vol	3	2	Two	100	
			SG-224-24"	S, Vol	(2)	0	Three	100	
	57-Feedwater SG No. 2 MSSS	Butt Welds	SG-204-24"	S, Vol	2	0	One	-	
			SG-205-24"	S, Vol	3	0	Two	-	
			SG-225-24"	S, Vol	(2)	7	Three	100	
	60-Downcomer Feedwater SG 1 MSSS	Butt Welds 8" x .719"	SG-200-8"	S, Vol	2(8)	9	One	64	
			SG-8-8"	S, Vol	4	5	Two	100	
						0	Three	100	
	61-Downcomer Feedwater SG 2 MSSS	Butt Welds 8" x .719"	SG-203-8"	S, Vol	2(8)	0	One	-	
			SG-11-8"	S, Vol	4	5	Two	36	
						9	Three	100	
	66-Blowdown SG 1 MSSS	Butt Welds	SG-39-6"	S, Vol	3(12)	9	One	69	
						6	Two	100	
						0	Three	100	
	67-Blowdown SG 2 MSSS	Butt Welds	SG-48-6"	S, Vol	3(9)	0	One	-	
						6	Two	50	
						6	Three	100	
530	Pipe Branch Connections								
531	Circumferential and								*SCHEDULED UNDER C5.21 AND C5.22
532	*Longitudinal Welds								
	47-Main Steam SG 1 West 270° MSSS	Sweepolets	SG-206-28"	S, Vol	7	7	One	100	
						0	Two	100	
						0	Three	100	

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APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAMINATION AMOUNT	INSPECTION PERIOD	RUNNING %	REMARKS AND RELIEF REQUESTS
531 532	CONTINUED								
	48-Main Steam SG 1 East 90° MSSS	Sweepolets	SG-207-28"	S, Vol	8(1)	0 9 0	One Two Three	- 100 100	
	49-Main Steam SG 2 East 270° MSSS	Sweepolets	SG-208-28"	S, Vol	8(1)	0 0 9	One Two Three	- - 100	
	50-Main Steam SG 2 West 90° MSSS	Sweepolets	SG-209-28"	S, Vol	7	0 0 7	One Two Three	- - 100	

SECTION 8.0
RHR, ECCS, AND CHR PIPING

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY
(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT 40 YR.	EXAM AMOUNT 10 YR.	INSPECTION PERIOD	(40 YR.) 10 YR. %	REMARKS AND RELIEF REQUESTS
C500	Exam Category C-F*	Note 2		Note 1				Note 3		
	Pressure Retaining Welds in Piping		*Extent of exams were determined using the 1974 Edition thru Summer 1975 Addenda of ASME Section XI.							
510	Piping Welds ≤ 1/2" nominal wall thickness		**2.5T min from each scheduled circ. weld intersection will be examined.							
			Note 1: An augmented volumetric examination of the circumferential welds will be performed in conjunction with the required surface exams when practical (note: IE bulletin 79-17).							
511	Circumferential and		Note 2: All lines are considered multiple systems unless noted.							
512	** Longitudinal welds		Note 3: Numbers in ( ) are 40 year totals.							
	(75 category C-F)									
	70-LPSI Pump Room A Suction	Butt Welds			(48)	(24)			***	***Category C5.10 systems are combined for percentages
	73-LPSI Pump Room B Suction	14" x 0.312"	SI-307	S, Vol	6	3	3	One		
			SI-308	S, Vol	6	3	4	Two		
							3	Three		
		16" x 0.312"	SI-67	S, Vol	5	3				
			SI-34	S, Vol	5	2				
		18" x 0.312"	SI-241	S, Vol	3	2				
			SI-194	S, Vol	3	1				
		20" x 0.375"	SI-307	S, Vol	10	5				
			SI-308	S, Vol	10	5				
	71-LPSI Pump Room A Discharge	Butt Welds			(56)	(28)				
	74-LPSI Pump Room B Discharge	8" x 0.322"	SI-87	S, Vol	2	1	3	One		
			SI-129	S, Vol	2	1	3	Two		
							2	Three		
		10" x 0.365"	SI-78	S, Vol	3	1				
			SI-123	S, Vol	3	2				
			SI-87	S, Vol	24	12				
			SI-129	S, Vol	22	11				
	76-Containment Spray Pump Room A Suction	Butt Welds			(47)	(24)				
		10" x 0.365"	SI-78	S, Vol	2	1	2	One		
	79-Containment Spray Pump Room B Suction		SI-123	S, Vol	2	1	2	Two		
							2	Three		
		14" x 0.312"	SI-009	S, Vol	4	2				
			SI-33	S, Vol	4	2				
		14" x 0.312"	SI-67	S, Vol	7	4				
			SI-34	S, Vol	7	3				
		16" x 0.312"	SI-67	S, Vol	2	1				
			SI-34	S, Vol	2	1				
		18" x 0.312"	SI-9	S, Vol	9	5				
			SI-33	S, Vol	8	4				

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY
(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT 40 YR.	EXAM AMOUNT 10 YR.	INSPECTION PERIOD	(40 YR.) 10 YR. %	REMARKS AND RELIEF REQUESTS
511										
512	CONTINUED									
	77-Containment Spray Pump Room A	Butt Welds			(67)	(34)				
	Discharge .	8" x 0.322"	SI-79	S, Vol	1	1	3	One		
	80-Containment Spray Pump Room B		SI-119	S, Vol	1	0	4	Two		
	Discharge						4	Three		
		10" x 0.365"	SI-79	S, Vol	27	14				
			SI-119	S, Vol	27	14				
		10" x 0.365"	SI-82	S, Vol	5	3				
			SI-147	S, Vol	6	2				
	82-Shutdown Cooling Heat Exchanger	Butt Welds			(45)	(24)				
	Room A ,	10" x 0.365"	SI-078	S, Vol	9	5	2	One		
	85-Shutdown Cooling Heat Exchanger		SI-123	S, Vol	10	5	4	Two		
	Room B						1	Three		
		10" X 0.365"	SI-79	S, Vol	9	4				
			SI-119	S, Vol	9	5				
		20" x 0.500"	SI-078	S, Vol	3	2				
			SI-123	S, Vol	5	3				
	83-Shutdown Cooling Heat Exchanger	Butt Welds			(115)	(60)				
	Room A ,	6" x 0.280"	SI-131	S, Vol	4	2	6	One		
	86-Shutdown Cooling Heat Exchanger		SI-13,	S, Vol	4	2	3	Two		
	Room B						8	Three		
		10" X 0.365"	SI-82	S, Vol	3	3				
			SI-147	S, Vol	3	1				
		10" X 0.365"	SI-87	S, Vol	12	6				
			SI-129	S, Vol	7	4				
		10" X 0.365"	SI-89	S, Vol	14	6				
			SI-134	S, Vol	14	7				
		14" x 0.375"	SI-90	S, Vol	10	6				
			SI-135	S, Vol	13	5				
		16" x 0.375"	SI-70	S, Vol	4	2				
			SI-72	S, Vol	4	2				

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY
(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT 40 YR.	EXAM AMOUNT 10 YR.	INSPECTION PERIOD	(40 YR.) 10 YR. %	REMARKS AND RELIEF REQUESTS
511 512	CONTINUED									
		20" x 0.500"	SI-70	S, Vol	14	8				
			SI-72	S, Vol	12	6				
	88-East Wrap , 89-East Wrap SI	Butt Welds			(52)	(16)				
		10" x 0.365"	SI-172	S, Vol	4	2	2	One		
			SI-71	S, Vol	2	1	2	Two		
							1	Three		
		12" x 0.375"	SI-72	S, Vol	15	4				
			SI-73	S, Vol	6	2				
			SI-70	S, Vol	11	2				
			SI-71	S, Vol	8	2				
		20" x 0.500"	SI-72	S, Vol	3	1				
			SI-70	S, Vol	3	2				
	89-East Wrap, 92-West Wrap Shutdown Cooling Suction	Butt Welds			(63)	(33)				
		10" x 0.250"	SI-173	S, Vol	11	6	5	One		
		**10" x 0.365"	SI-239	S, Vol	10	5	1	Two		**One Weld per line
							2	Three		
		12" x 0.250"	SI-38	S, Vol	4	2				
			SI-2	S, Vol	10	5				
		16" x 0.312"	SI-194	S, Vol	8	4				
			SI-241	S, Vol	10	6				
			SI-173	S, Vol	2	1				
		18" x 0.312"	SI-194	S, Vol	3	1				
			SI-241	S, Vol	5	3				

REV. 1
12-23-91

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY
(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

ASME ITEM NO.	ZONE•COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT 40 YR.	EXAM AMOUNT 10 YR.	INSPECTION PERIOD	(40 YR.) 10 YR. %	REMARKS AND RELIEF REQUESTS
511 512	CONTINUED									
	90-East Wrap, 93-West Wrap	Butt Welds			(24)	(12)				
	SI	8" x 0.322"	SI-134	S, Vol	2	1	0	One		
			SI-89	S, Vol	2	1	3	Two		
							0	Three		
		10" x 0.365"	SI-134	S, Vol	5	3				
			SI-89	S, Vol	11	5				
		24" x 0.375"	SI-30	S, Vol	2	1				
			SI-7	S, Vol	2	1				
	94-A Train Misc. Pipe Chases & 88' Pipe Tunnel,	Butt Welds			(67)	(34)				
		10" x 0.365"	SI-89	S, Vol	10	5	7	One		
	95-B Train Misc. Pipe Chases & 88' Pipe Tunnel		SI-134	S, Vol	9	5	0	Two		
	SI						2	Three		
		18" x 0.312"	SI-194	S, Vol	18	9				
			SI-241	S, Vol	15	8				
		20" x 0.500"	SI-70	S, Vo	10	5				
			SI-72	S, Vol	5	2				
	100-Containment LPSI "rain A Suction ,	Butt Welds			(43)	(22)				
	101-Containment LPSI rain B Suction	10" x 0.250"	SI-369	S, Vol	10	5	1	One		
	Inside Containment	**6" x 0.280"	SI-368	S, Vol	17	9	2	Two		
							4	Three		**One Weld per line.
		16" x 0.312"	SI-241	S, Vol	3	2				
			SI-194	S, Vol	9	4				
		24" x 0.375"	SI-7	S, Vol	2	1				
			SI-30	S, Vol	2	1				
	Category C510 Systems				(627)	(310)			(100)	
	Total						29	One	10	
							28	Two	19	
							29	Three	28	

REV 1
12-23-91

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY
(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT 40 YR.	EXAM AMOUNT 10 YR.	INSPECTION PERIOD	(40 YR.) 10 YR. %	REMARKS AND RELIEF REQUESTS
520	Piping Welds Over 1/2" Nominal Wall Thickness									
521 522	Circumferential and **Longitudinal Welds ('75 category C-F)									**2.5T min. from each scheduled circ. weld intersection will be examined.
					(33)	(8)				
	88-East Wrap, 91-West Wrap LPSI Header To Loop-West Wrap	12" x 1.125"	SI-72 & 155	S, Vol	8	2	1	One	***	***Category C520 systems are combined for percentages.
			SI-73 & 174	S, Vol	8	2	0	Two		
			SI-70 & 202	S, Vol	9	2	0	Three		
			SI-71 & 220	S, Vol	8	2				
	90-East Wrap, 93-West Wrap SI	Butt Welds 24" x 0.562"	SI-308	S, Vol	(4) 2	(2) 1	0	One		
			SI-307	S, Vol	2	1	1	Two		
							0	Three		
					(108)	(27)				
	96-Containment LPSI Header to Loop 1A,	Butt Welds	SI-202	S, Vol	4	1	2	One		
	97-Containment LPSI Header to Loop 1B,	12" x 1.125"	SI-220	S, Vol	4	1	3	Two		
	98-Containment LPSI Header to Loop 2A,		SI-155	S, Vol	4	1	3	Three		
	99-Containment LPSI Header to Loop 2B		SI-174	S, Vol	2	1				
		12" x 1.312"	SI-202	S, Vol	22	6				
			SI-220	S, Vol	36	8				
			SI-155	S, Vol	21	5				
			SI-174	S, Vol	15	4				
	100-Containment LPSI Train A Suction,	Butt Welds			(4)	(2)				
	101-Containment LPSI Train B Suction	16" x 1.594"	SI-241	S, Vol	2	1	0	One		
			SI-194	S, Vol	2	1	0	Two		
							0	Three		
	Category C520 Systems Total				(149)	(39)			(100)	
							3	One	8	
							4	Two	18	
							3	Three	25	
530 531 532	Pipe Branch Connections Circumferential and *Longitudinal Welded									*2.5T min. from each weld intersection will be examined.
	82-Shutdown Cooling Heat Exchanger Room A,	Sweepolet 20" x 10"			(4)	(2)				
			SI-78	S	2	1	1	One	**	**Category C530 systems are combined for percentages.
	85-Shutdown Cooling Heat Exchanger Room B Inlets		SI-123	S	2	1	0	Two		
							0	Three		

REV. 1
12-23-91

APS PALO VERDE NUCLEAR GENERATING STATION
10 YEAR INTERVAL - EXAMINATION SUMMARY
(RHR, ECCS, and CHR SYSTEMS)

ASME CLASS 2

ASME ITEM NO.	ZONE-COMPONENT OR SYSTEM	IDENTIFICATION	DESCRIPTION LINE NO., OR SERIAL NO.	NDE METHOD	TOTAL ITEMS	EXAM AMOUNT 40 YR.	EXAM AMOUNT 10 YR.	INSPECTION PERIOD	(40 YR.) 10 YR. %	REMARKS AND RELIEF REQUESTS
C530	CONTINUED									
C531										
C532	83-Shutdown Cooling Heat Exchanger	Sweepolets			(8)	(4)				
	Room A,	20" x 6"	SI-70	S	4	2	0	One		
	86-Shutdown Cooling Heat Exchanger	20" x 10"	SI-72	S	4	2	0	Two		
	Room B	20" x 14"					1	Three		
	outlet									
	88-East Wrap, 91-West Wrap	S veepolets			(2)	(1)				
	SI	20" x 12"	SI-70	S	1	1	1	One		
			SI-72	S	1	0	0	Two		
							0	Three		
	89-East Wrap, 92-West Wrap	Sweepolets			(2)	(1)				
	SI	18" x 12"	SI-194	S	1	1	0	One		
			SI-241	S	1	0	0	Two		
							0	Three		
	Category C530				(16)	(8)			(100)	
	Systems Total						2	One	25	
							0	Two	25	
							1	Three	38	

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12-23-91

SECTION 9.0
REQUESTS FOR RELIEF

RELIEF REQUESTS
INDEX

NUMBER	DESCRIPTION
1.	Hydraulic and Mechanical Snubbers will be tested in accordance with PVNGS Technical Specifications.
2.	Withdrawn
3.	Insulation will not be removed for visual examinations or welded or mechanical attachments.
4.	Level III Personnel will be recertified by examination every 5 years.
5	Withdrawn
6.	Reactor Vessel Support Visual Examination.
7.	Class 2 and 3 Systems Pressure Test.
8.	Class 3 System Pressure Test.

RELIEF REQUEST NO. 1

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
HYDRAULIC AND MECHANICAL SNUBBERS	1 2 3	1-IWF 2-IWF 3-IWF	N/A N/A N/A	N/A N/A N/A

CODE REQUIREMENT

Perform inservice functional testing of hydraulic and mechanical snubbers in accordance with IWF-5000

BASIS

A detailed and comprehensive testing program for snubbers is contained in the PVNGS Technical Specifications.

9-3

ALTERNATE EXAMINATION

The requirements for testing snubbers will be in accordance with the PVNGS Technical Specifications, Section 4.7.9

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

APPROVAL

NRC letter dated October 21, 1987, from E. A. Licitra, NRC, to E.E. Van Brunt, Jr., "Inservice Inspection Programs Palo Verde, Unit 1, 2, & 3".

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12-23-91

RELIEF REQUEST NO. 2

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
NOZZLE INSIDE RADIUS SECTIONS				
PRESSURIZER	1	1-3	B3.120	B-D
STEAM GENERATOR	1	1-3	B3.140	B-D
STEAM GENERATOR	2	2-2	C2.22	C-B
SHUT DOWN COOLING HEAT EXCHANGERS	2	2-2	C2.22	C-B

WITHDRAWN

RELIEF REQUEST NO. 3

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
SUPPORT COMPONENTS	1	1-IWF	ALL	F-A, F-B & F-C
	2	2-IWF	ITEMS	F-A, F-B & F-C
	3	3-IWF		F-A, F-B & F-C
INTEGRAL ATTACHMENTS	3	3-1		D-A, D-B & D-C

CODE REQUIREMENT

Perform visual examinations (VT-3) of the mechanical or welded attachments to the pressure retaining component on insulated systems.

BASIS

The visual examinations of the mechanical or welded attachments will be performed to the extent practical. The insulation will not be removed to perform these examinations. It has been our experience that any loss of support capability or adequate restraint can usually be detected through the examination of uninsulated portions of the support, the accessible portions of the attachments through the insulation gaps, and or the surrounding insulation.

ALTERNATE EXAMINATION

The mechanical and welded attachments will be visually examined to the extent practical. The insulation will be removed from around the support attachment for further examinations whenever an abnormality is detected.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

APPROVAL

NRC letter dated October 21, 1987, from E. A. Licitra, NRC, to E.E. Van Brunt, Jr., "Inservice Inspection Programs Palo Verde, Unit 1, 2, & 3".

REV 1
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RELIEF REQUEST NO. 4

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
N/A	N/A	N/A	N/A	N/A

CODE REQUIREMENT

All Level III personnel shall be recertified by examination on a triennial basis (IWA-2300(a)(1)).

BASIS

The 1986 Edition of Section XI and the 1983 Edition thru Summer 1983 Addenda of ASME III (Latest Edition and Addenda referenced in 10 CFR 55.55a) requires Level III personnel to be recertified every 5 years.

ALTERNATE EXAMINATION

All Level III personnel shall be recertified by examination every 5 years.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval

APPROVAL

NRC letter dated October 21, 1987, from E. A. Licitra, NRC, to E.E. Van Brunt, Jr., "Inservice Inspection Programs Palo Verde, Unit 1, 2, & 3".

RELIEF REQUEST NO. 5

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
N/A	N/A	N/A	N/A	N/A

WITHDRAWN

RELIEF REQUEST NO. 6

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
Reactor Vessel Supports	1	1-IWF	F2.10 F2.20 F2.30 F2.40	F-B

CODE REQUIREMENT

Perform visual examination (VT-3) of the Reactor Vessel Supports

BASIS

The visual examination of the reactor vessel supports will not be performed. The supports are inaccessible from the refueling cavity seal ring area for either direct or remote visual examination. Examination from the ICI chase below the vessel would require extensive scaffolding to be erected in order to get up to the support pedestal and the exam would still be severely limited due to accessibility between the reactor vessel and the cavity. The performance of this visual would require extremely large amounts of time, effort, expense, and radiation exposure (expected to be 3 man rem per support based on surveys taken in Unit 3 during first refueling outage).

ALTERNATE EXAMINATION

No alternate examination is proposed.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval.

APPROVAL

Pending NRC approval.

RELIEF REQUEST NO. 7

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
PRESSURE RETAINING COMPONENTS	2 3	2-7 3-1	C710 C730 C750 C770 D110 D210 D310	C-H D-A D-B D-C

CODE REQUIREMENT

Perform System Functional (class 2) and System Inservice (class 3) pressure test in accordance with IWA-5000, IWC-5000, IWD-5000.

BASIS

This relief is applicable only to portions of piping systems that are classified ASME due to penetration of containment building liner plate.
For the applicable class 2 systems the piping upstream and downstream of containment isolation is classified non-ASME.
The class 3 system is applicable to the fuel transfer tube (containment to fuel bldg.).

ALTERNATE EXAMINATION

The applicable containment piping penetrations and fuel transfer tube are routinely subjected to surveillance testing.
This testing consists of integrated leak rate testing and/or local leak rate testing.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval.

APPROVAL

Pending NRC approval.

RELIEF REQUEST NO. 8

COMPONENT OR ITEM	CODE CLASS	PROGRAM TABLE	CODE ITEM	EXAM CATEGORY
PRESSURE RETAINING COMPONENTS	3	3-1	D2.10	D-B

CODE REQUIREMENT

Perform System Inservice Pressure Test in accordance with IWA-5000 and IWD-5000

BASIS

The 1986 Edition of Section XI Code (which is included in the latest Edition referenced in the current 10 CFR 50.55a) requires a Functional Pressure Test be performed on systems in support of Emergency Core Cooling, Containment Heat Removal, Atmospheric Cleanup, and Reactor Residual Heat Removal.

ALTERNATE EXAMINATION

Perform a Functional Pressure Test on Class 3 Pressure Retaining Components within systems not normally operating while the Unit is Inservice.

SCHEDULE FOR IMPLEMENTATION

First Ten Year Inspection Interval.

APPROVAL

Pending NRC Approval.

SECTION 10.0
ISI
BOUNDARY DRAWINGS

NOTE: See ISI Drawings for Unit 1 ISI Program, Letter ANPP-33266-EEVB/KLM, dated August 26, 1985, from E. E. Van Brunt, Jr., ANPP, to George W. Knighton, NRC, "Palo Verde Nuclear Generating Station (PVNGS) Unit 1 Docket Nos. STN 50-528 (License No. NPF-41) Initial Inservice Inspection Program-PVNGS Unit 1".

SECTION 11.0
ZONE DRAWINGS

ZONE DRAWING INDEX

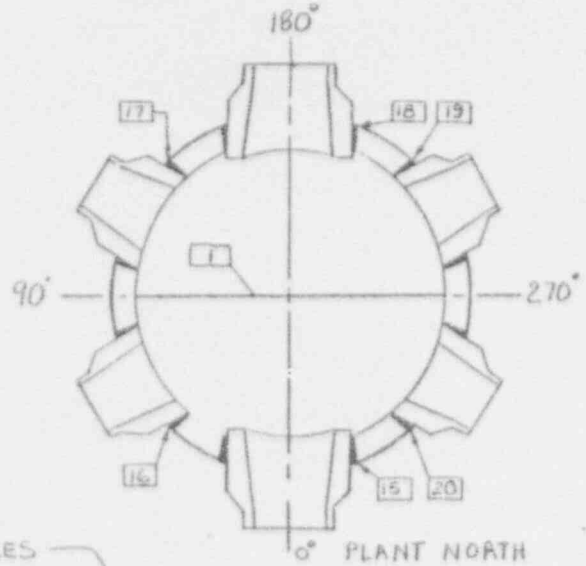
Drawing No.	Revision	Drawing Title	Code Class
Zone 1	0	Reactor Vessel	1
Zone 2	0	Closure Head	1
Zone 3	0	Steam Generator 1	1
Zone 4	0	Steam Generator 2	1
Zone 5	0	Pressurizer	1
Zone 6	0	RCS Primary Piping	1
Zone 7-15	0	(NOT USED)	1
Zone 16	0	Reactor Coolant Pump 1A	1
Zone 17	0	Reactor Coolant Pump 1B	1
Zone 18	0	Reactor Coolant Pump 2A	1
Zone 19	0	Reactor Coolant Pump 2B	1
Zone 20	0	Pressurizer Surge Line	1
Zone 21	0	Shutdown Cooling Loop 1	1
Zone 22	0	Shutdown Cooling Loop 2	1
Zone 23	0	Safety Injection 1A	1
Zone 24	0	Safety Injection 1B	1
Zone 25	0	Safety Injection 2A	1
Zone 26	0	Safety Injection 2B	1
Zone 27	0	Pressurizer Spray 1A	1
Zone 28	0	Pressurizer Spray 1B	1
Zone 29	0	Combined Pressurizer Spray	1
Zone 30	0	Aux. Pressurizer Spray	1
Zone 31	0	Pressurizer Safeties	1
Zone 32	0	Drain Line 1A	1
Zone 33	0	Drain Line 1B	1
Zone 34	0	Drain Line 2A	1
Zone 35	0	Drain Line 2B	1
Zone 36	0	Letdown Line	1
Zone 37	0	Charging Line	1
Zone 38	0	Drain Line Loop 1	1
Zone 39	0	HPSI Long Term Recirc 1	1
Zone 40	0	HPSI Long Term Recirc 2	1
Zone 41	0	Steam Generator 1	2
Zone 42	0	Steam Generator 2	2
Zone 43	0	Main Steam SG1 East	2
Zone 44	0	Main Steam SG1 West	2
Zone 45	0	Main Steam SG2 East	2
Zone 46	0	Main Steam SG2 West	2
Zone 47	0	Main Steam SG1 West	2
Zone 48	0	Main Steam SG1 East	2
Zone 49	0	Main Steam SG2 East	2
Zone 50	0	Main Steam SG2 West	2
Zone 51	0	Atmospheric Dump No. 1	2
Zone 52	0	Atmospheric Dump No. 2	2

ZONE DRAWING INDEX (Cont'd)

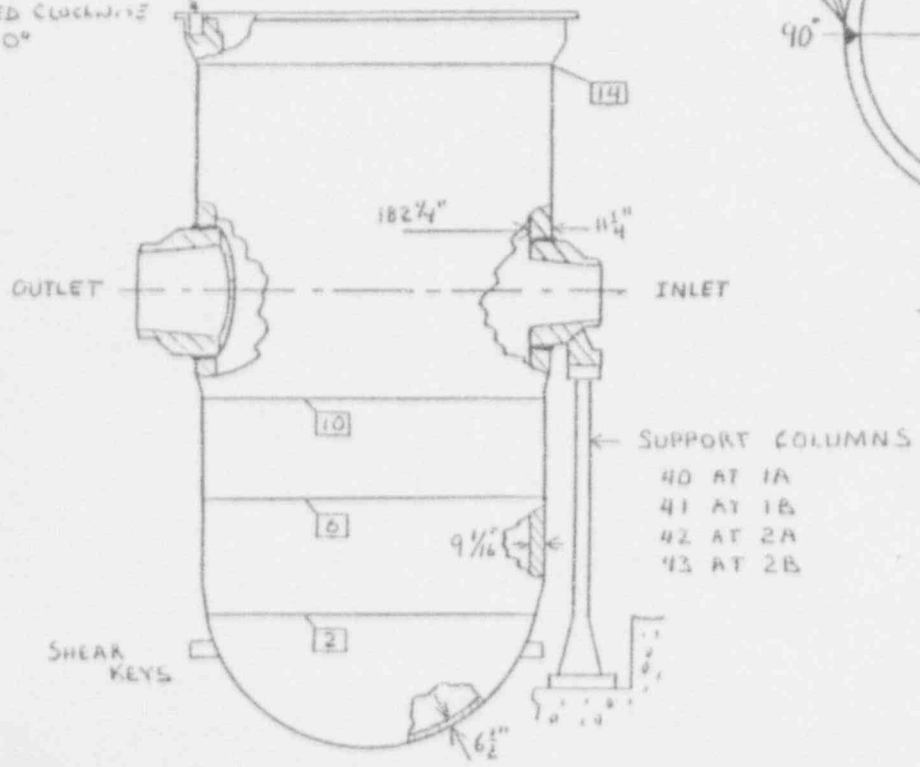
Drawing No.	Revision	Drawing Title	Code Class
Zone 53	0	Steam to Aux Feedwater System	2
Zone 54	0	Feedwater SG No. 1	2
Zone 55	0	Feedwater SG No. 2	2
Zone 56	0	Feedwater SG No. 1	2
Zone 57	0	Feedwater SG No. 2	2
Zone 58	0	Aux & Downcomer Feedwater SG 1	2
Zone 59	0	Aux & Downcomer Feedwater SG 2	2
Zone 60	0	Downcomer Feedwater SG 1	2
Zone 61	0	Downcomer Feedwater SG 2	2
Zone 62	0	Aux Feedwater SG 1	2
Zone 63	0	Aux Feedwater SG 2	2
Zone 64	0	Blowdown SG 1	2
Zone 65	0	Blowdown SG 2	2
Zone 66	0	Blowdown SG 1	2
Zone 67	0	Blowdown SG 2	2
Zone 68	0	Regenerative Heat Exchanger	2
Zone 69	0	Letdown Heat Exchanger	2
Zone 70	0	LPSI Pump Room A Suction	2
Zone 71	0	LPSI Pump Room A Discharge	2
Zone 72	0	LPSI Pump A	2
Zone 73	0	LPSI Pump Room B Suction	2
Zone 74	0	LPSI Pump Room B Discharge	2
Zone 75	0	LPSI Pump B	2
Zone 76	0	Containment Spray Pump Room A Suction	2
Zone 77	0	Containment Spray Pump Room A Discharge	2
Zone 78	0	Containment Spray Pump A	2
Zone 79	0	Containment Spray Pump Room B Suction	2
Zone 80	0	Containment Spray Pump Room B Discharge	2
Zone 81	0	Containment Spray Pump B	2
Zone 82	0	Shutdown Cooling Heat Exchanger Room A	2
Zone 83	0	Shutdown Cooling Heat Exchanger Room A	2
Zone 84	0	Shutdown Cooling Heat Exchanger	2
Zone 85	0	Shutdown Cooling Heat Exchanger Room B	2
Zone 86	0	Shutdown Cooling Heat Exchanger Room B	2
Zone 87	0	Shutdown Cooling Heat Exchanger B	2
Zone 88	0	East Wrap	2

ZONE DRAWING INDEX (Cont'd)

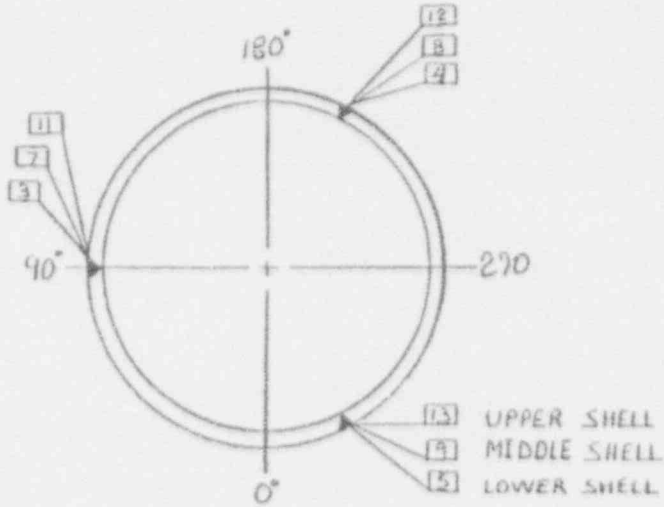
Drawing Number	Revision	Drawing Title	Code Class
Zone 89	0	East Wrap	2
Zone 90	0	East Wrap	2
Zone 91	0	West Wrap	2
Zone 92	0	West Wrap	2
Zone 93	0	West Wrap	2
Zone 94	0	A Train Misc. Pipe Chases & 88' Pipe Tunnel	2
Zone 95	0	B Train Misc. Pipe Chases & 88' Pipe Tunnel	2
Zone 96	0	Containment LPSI Header to Loop 1A	2
Zone 97	0	Containment LPSI Header to Loop 1B	2
Zone 98	0	Containment LPSI Header to Loop 2A	2
Zone 99	0	Containment LPSI Header to Loop 2B	2
Zone 100	0	Containment LPSI Train A Suction	2
Zone 101	0	Containment LPSI Train B Suction	2



54 STUD HOLES COUNTED CLOCKWISE FROM 0°



← SUPPORT COLUMNS
40 AT 1A
41 AT 1B
42 AT 2A
43 AT 2B



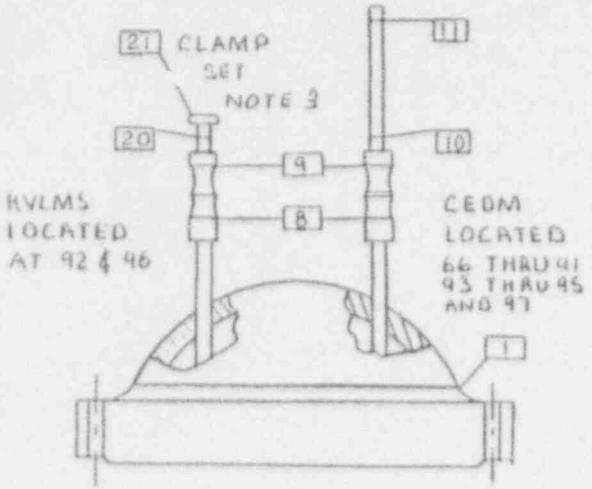
SHELL SEGMENT CROSS SECTION - LONG SEAMS -

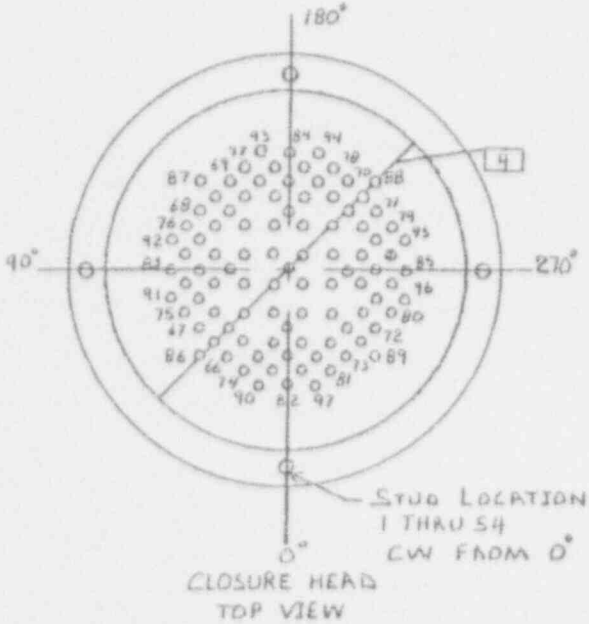
NOTES:

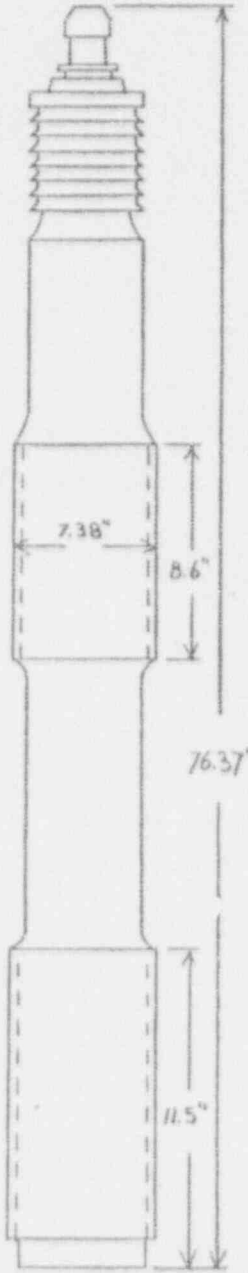
TAG NO. 1MRCEX01
SERIAL NO. 78173 (C-E)
N.B. NO. 22253

REFERENCE DWG:
NOD1-3.01-15 AND 17
NOD1-3.01-41 AND 61
NOD1-3.01-72

REV 0	DWG UNIT #1 ZONE 1
DRAWN BY D B HANSEN	TITLE: REACTOR VESSEL
CHECKED BY J B STRICKLER	







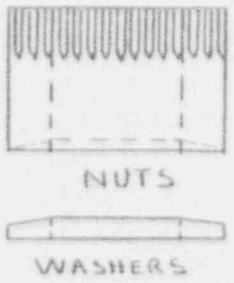
CLOSURE HEAD STUDS #1 THRU #54

NOTES:

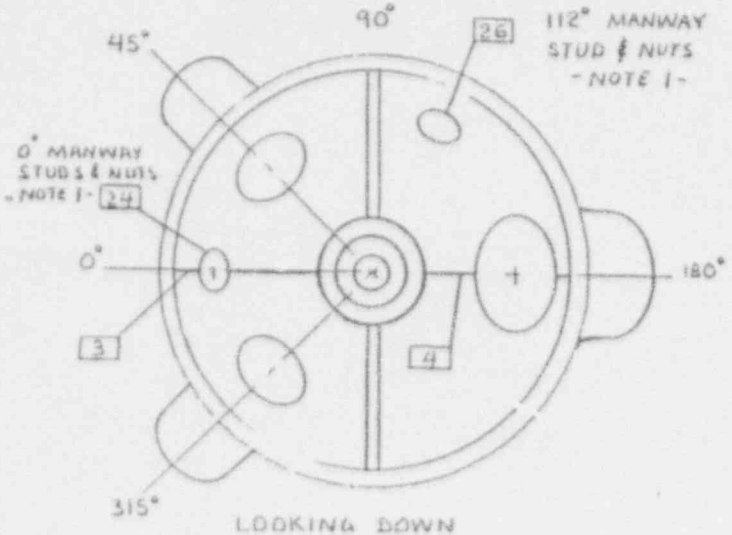
1) CEDM'S: ITEM NO. - CEDM NO.
2) TAG NO. IMRCEX03
   SERIAL NO. 78173 (E-E)
   N.B. NO. 22253
3) ITEM 21 CONTAINS 9 SINGLE MATED STUDS IN A GRAYLOC CLAMP

REFERENCE DWGS:

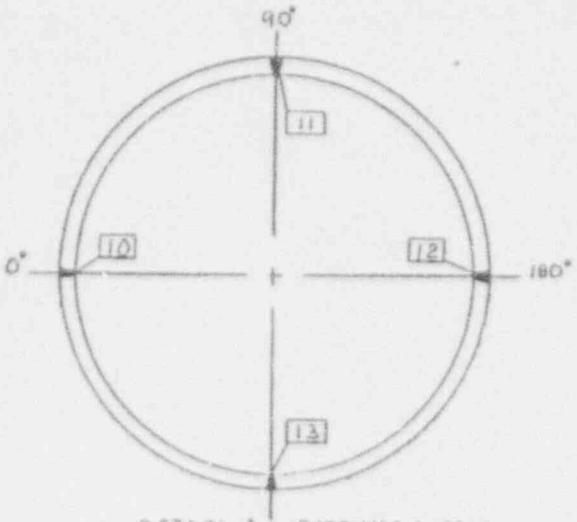
NOD1-3.01-24 AND 25
NOD1-3.01-121 AND 213



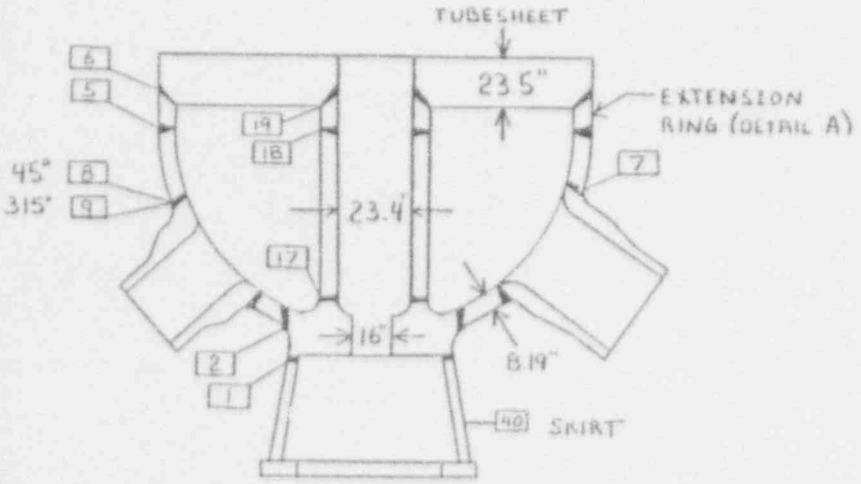
REV. 0	DWG: UNIT #1 ZONE 2
DRAWN BY: D.B. HANSEN	TITLE: CLOSURE HEAD
CHECKED BY: J.B. STRICKLER	



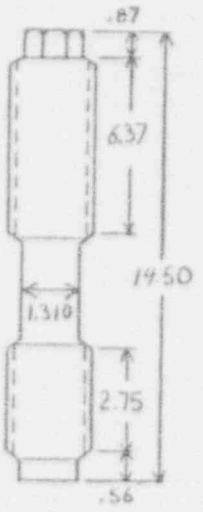
LOOKING DOWN



DETAIL A - EXTENSION RING LONG SEAMS



CHANNEL HEAD CROSS SECTION



MANWAY STUDS

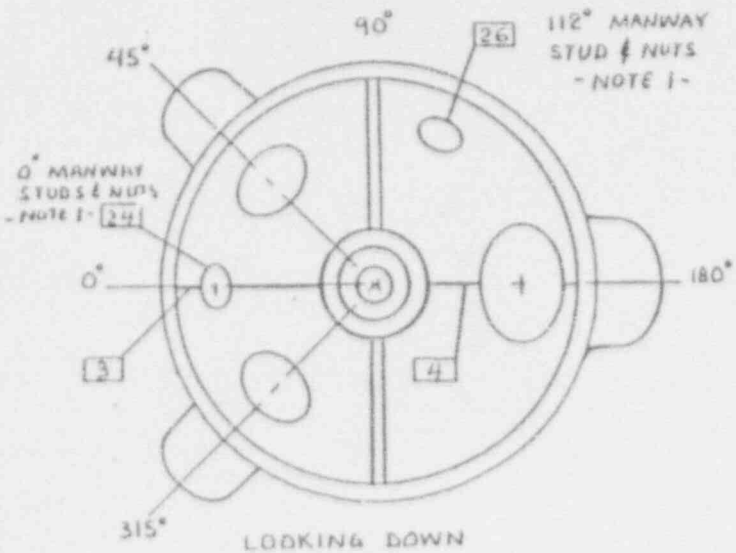
NOTES:

1) STUD LOCATION IS #1 TDC GOING CW TO #20
2) TAG NO IMRCEE01A
SERIAL NO. 78273-1(EE)
N.B. NO. 22499

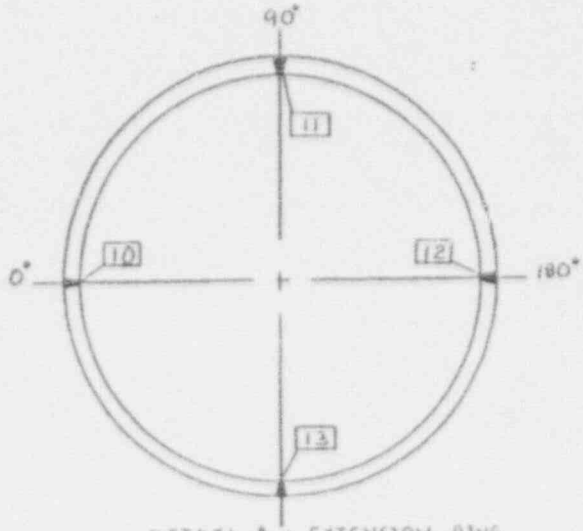
REFERENCE DWGS:

N001-6.03-9 AND 10
N001-6.03-53
N001-6.03-239 AND 313

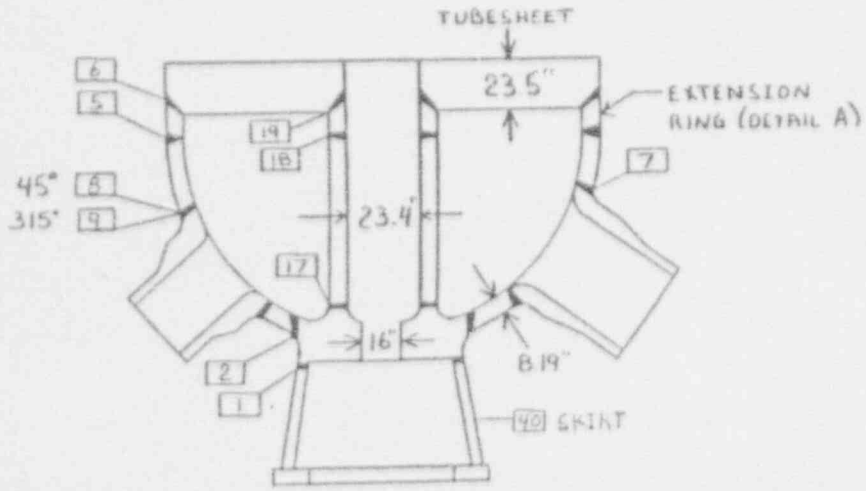
REV 0	DWG UNIT 1 ZONE 3
DRAWN BY D.B. HANSEN	TITLE: STEAM GENERATOR # 1
CHECKED BY JBS	



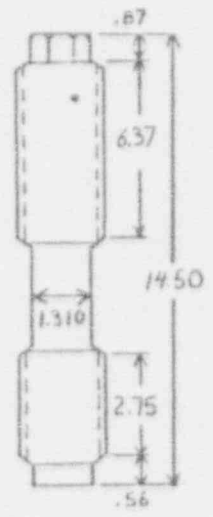
LOOKING DOWN



DETAIL A - EXTENSION RING LONG SEAMS



CHANNEL HEAD CROSS SECTION



MANWAY STUDS

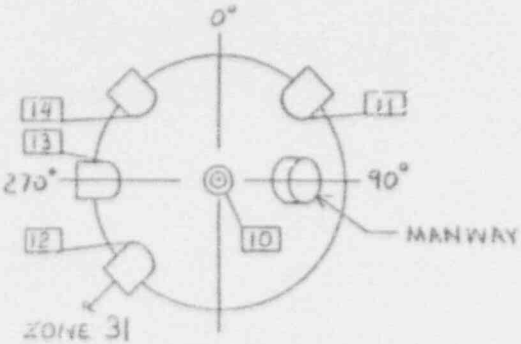
NOTES:

1) STUD LOCATION IS #1 TDC GOING CW TO #20
2) TAG NO. IMRCEE01B
SERIAL NO. 78273-2 (CE)
N.B. NO. 22500

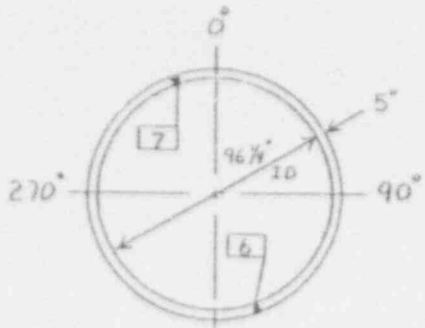
REFERENCE DWGS:

N001-6.03-9 AND 10
N001-6.03-53
N001-6.03-259 AND 313

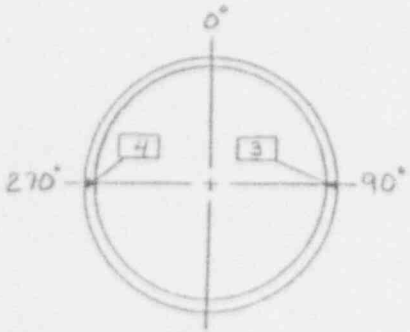
REV 0	DWG UNIT 1 ZONE 4
DRAWN BY D.B. HANSEN	TITLE: STEAM GENERATOR #2
CHECKED BY JBS	



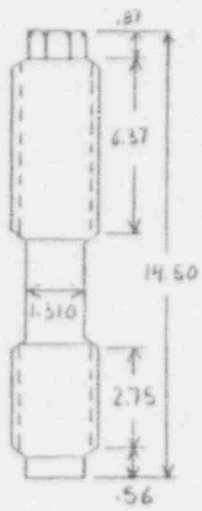
TOP VIEW



UPPER SHELL



LOWER SHELL



MANWAY STUDS

NOTES:

1) STUD LOCATION IS #1 TDC GOING CW TO #20
2) TAG NO. IMACEXD2
SERIAL NO. 78373 (EE)
N. B. NO. 22234

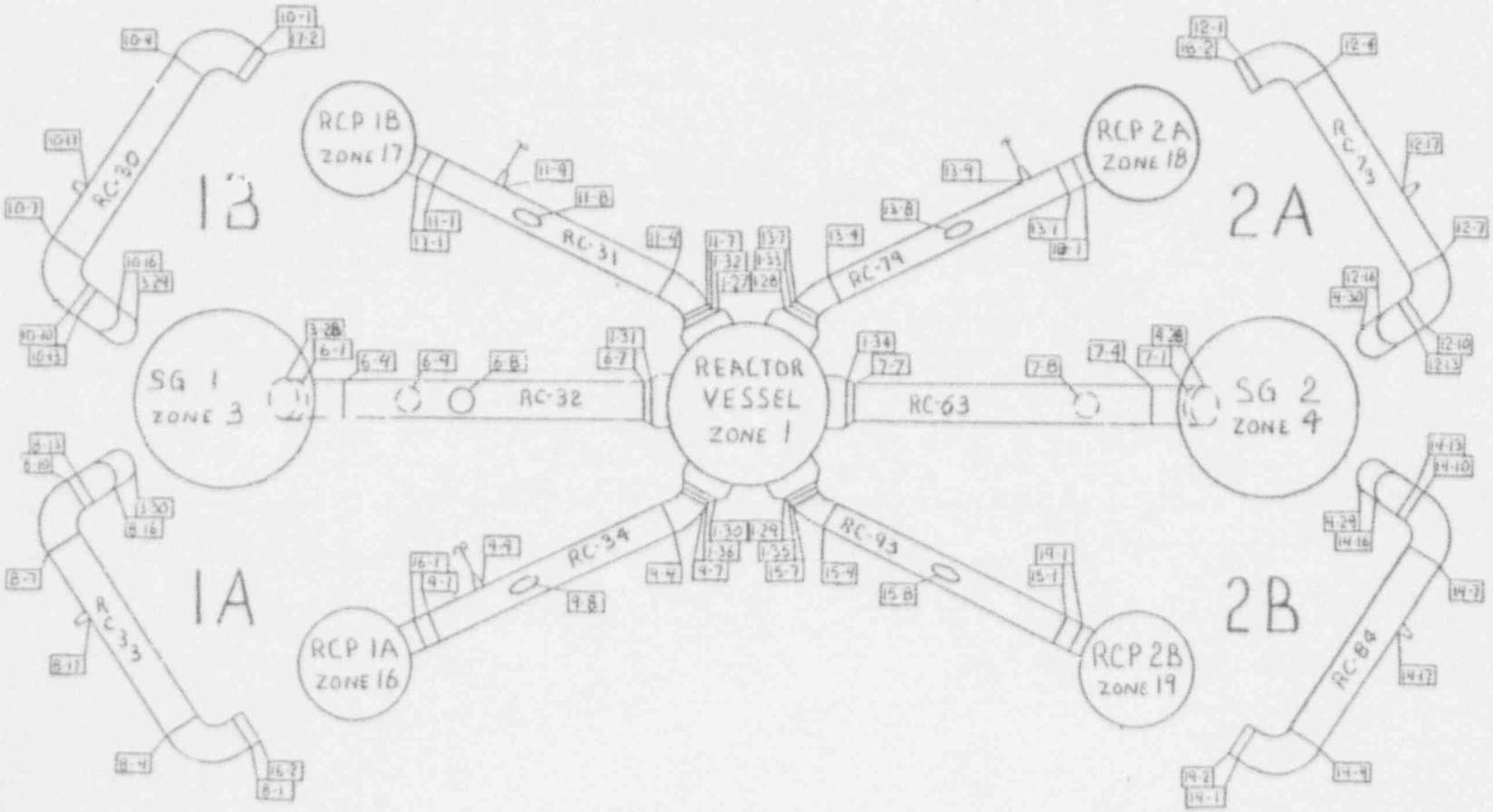
REFERENCE DWGS:

NOO1-6.04-6, 31 AND 90

REV 0	DWG: UNIT #1 ZONE 5
DRAWN BY: D B HANSEN	TITLE: PRESSURIZER
CHECKED BY: JBS	

NOTES:

1) PIPE LONG SEAMS AT 3:00 AND 9:00 POSITIONS
2) ELBOW LONG SEAMS AT LONG AND SHORT RADIUS.



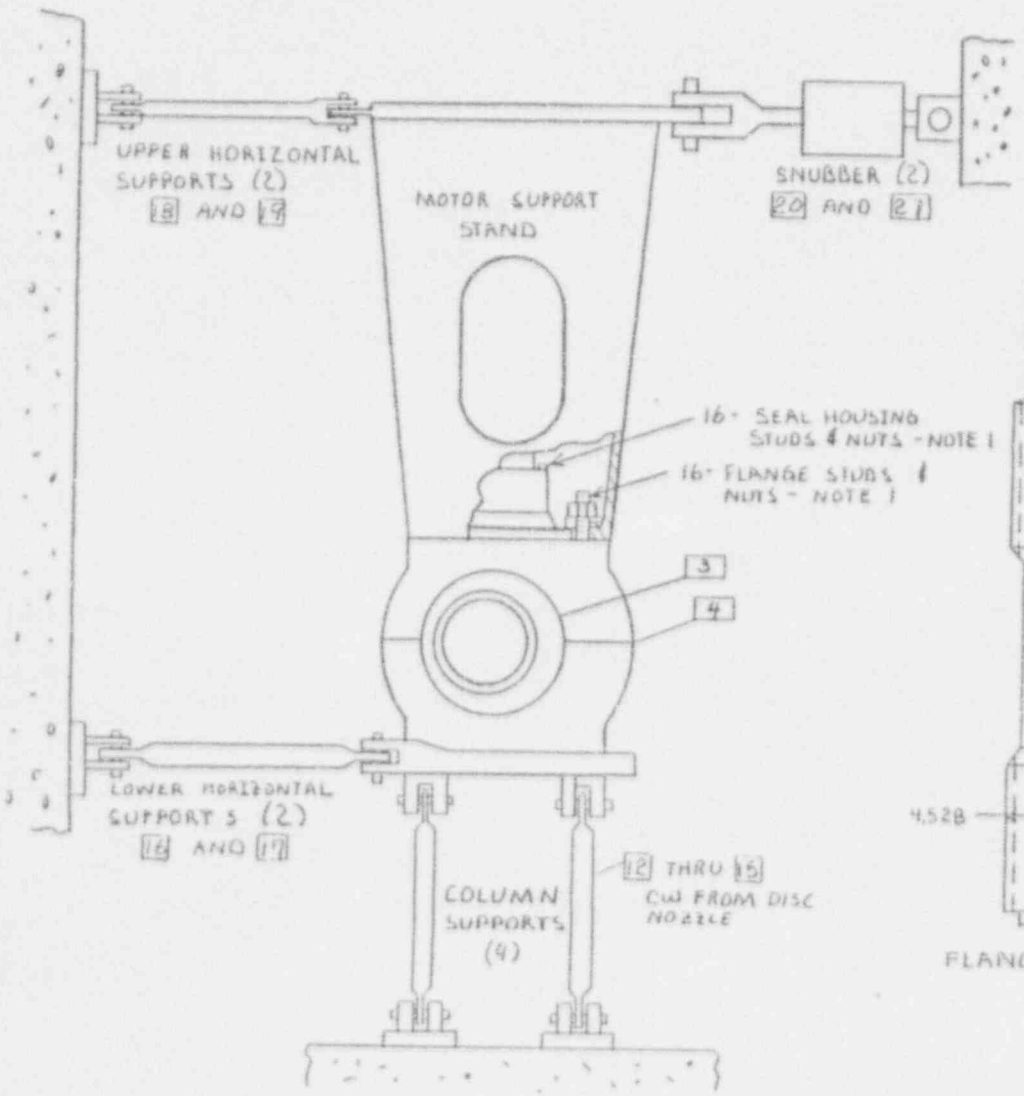
REFERENCE DRAWINGS:

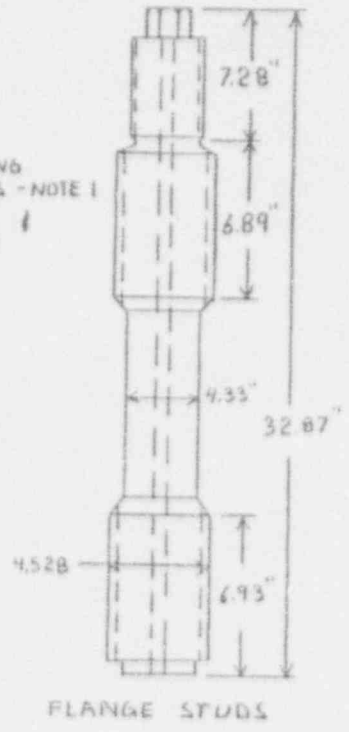
13-P-ZEG-103
NOD1-6.07-83 AND 112
NOD1-6.07-90 THRU 99
NOD1-6.07-96 THRU 100

REV. 0	DWG UNIT 1 ZONE 6
DRAWN BY DB HANSEN	TITLE: RCS PRIMARY PIPING
CHECKED BY TBS	

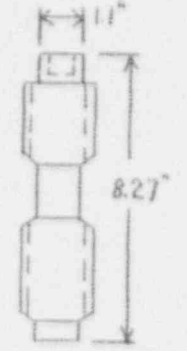
NOTES:

1) STUD LOCATIONS CW FROM DISCHARGE ℄
2) TAG NO. IMRCEP01A
   SERIAL NO. 1109-1A (C-E)
   N.B. NO. 23439





FLANGE STUDS



SEAL HOUSING STUDS

REFERENCE DWGS:

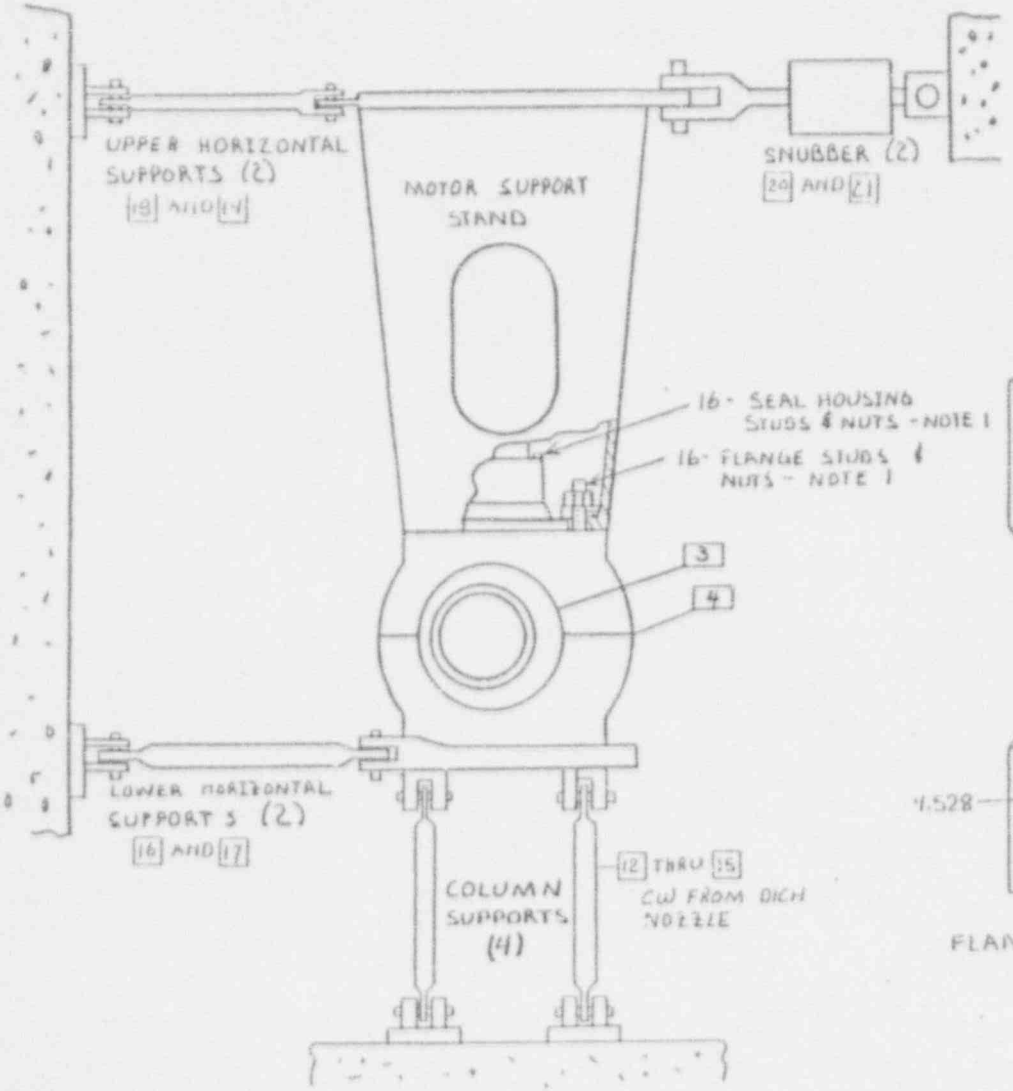
N001 - 6.02 - 41B
N001 - 6.02 - 42D THRU 423
N001 - 6.02 - 107 & 108

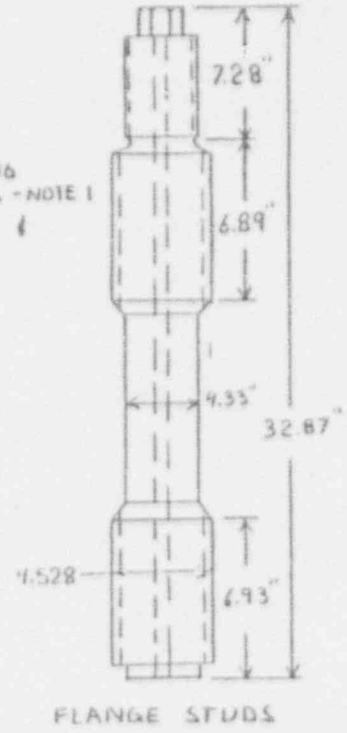
REV 0	DWG UNIT #1 ZONE 16
DRAWN BY D. G. HANSEN	TITLE: REACTOR COOLANT PUMP 1A
CHECKED BY JBS	

NOTES:

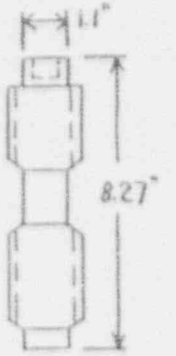
1) STUD LOCATIONS CW FROM DISCHARGE ℄

2) TAG NO. 1MRCEP01B
SERIAL NO. 1109-1B (C-E)
N.B. NO. 23410





FLANGE STUDS



SEAL HOUSING STUDS

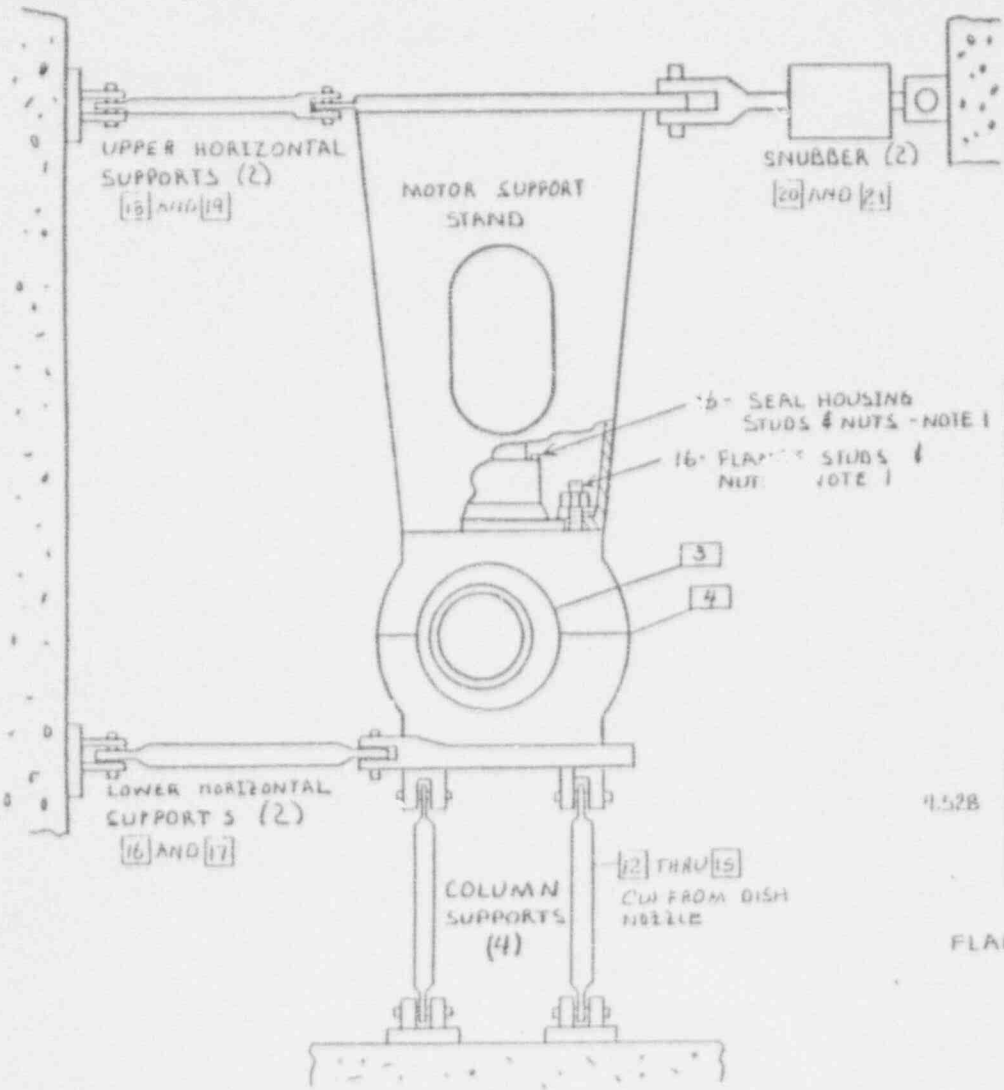
REFERENCE DWGS:

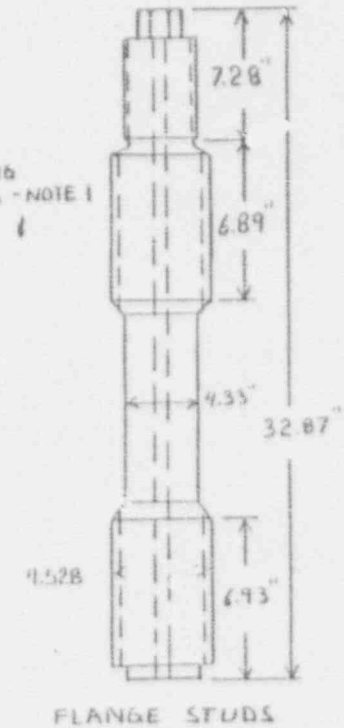
N001 - 6.02-418
N001 - 6.02-420 THRU 423
N001 - 6.02-107 & 108

REV 0	DWG UNIT #1 ZONE 17
DRAWN BY D B HANSEN	TITLE: REACTOR COOLANT PUMP 1B
CHECKED BY JES	

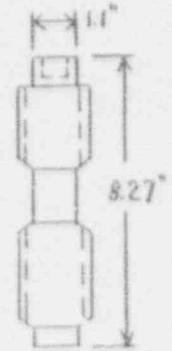
NOTES:

1) STUD LOCATIONS CW FROM DISCHARGE ℄
2) TAG NO. IMRCEN01C
SERIAL NO. 1107-2A (C-E)
N.B. NO. 23441





FLANGE STUDS



SEAL HOUSING STUDS

REFERENCE DWGS:

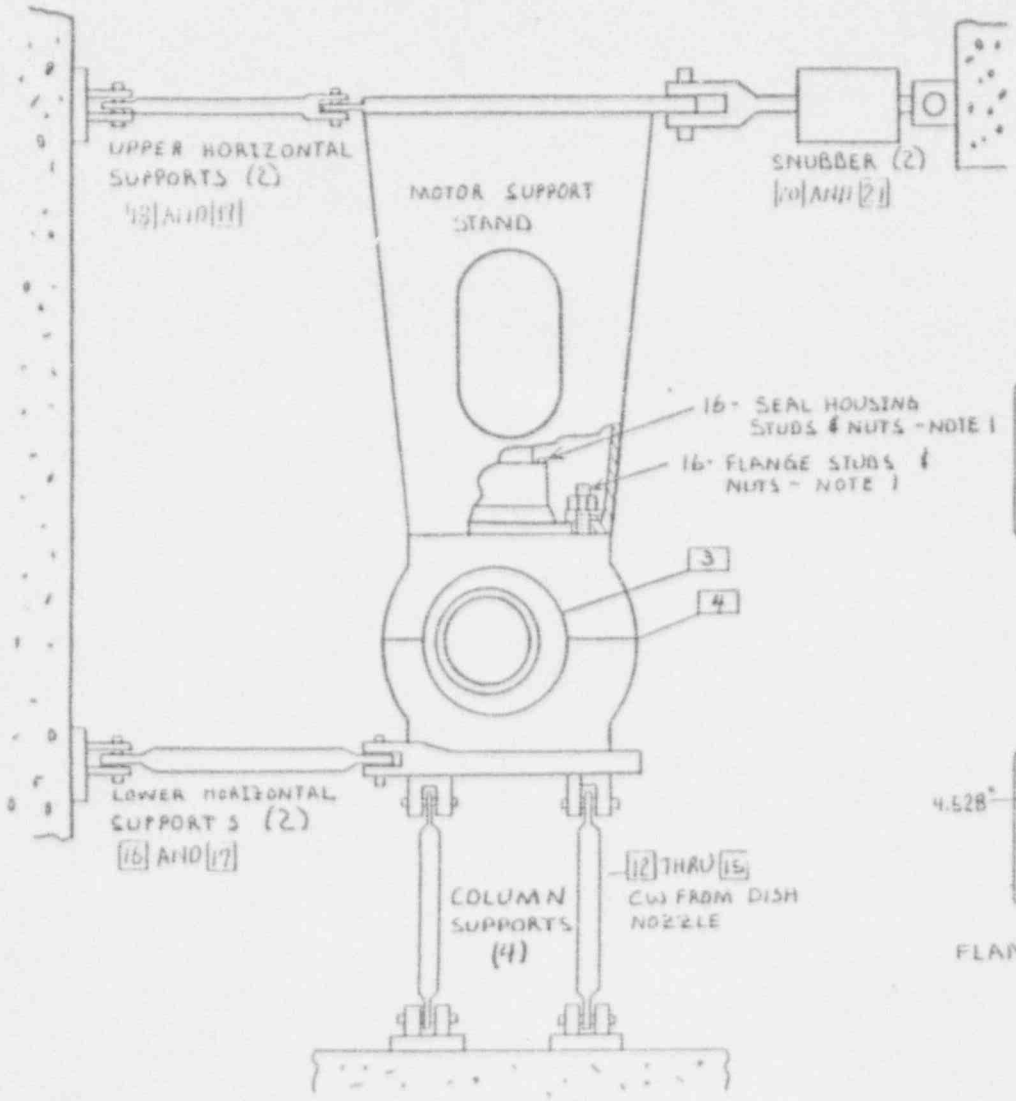
NOC1 - 6.02-418
N001 - 6.02-420 THRU 423
N001 - 6.02-107 & 108

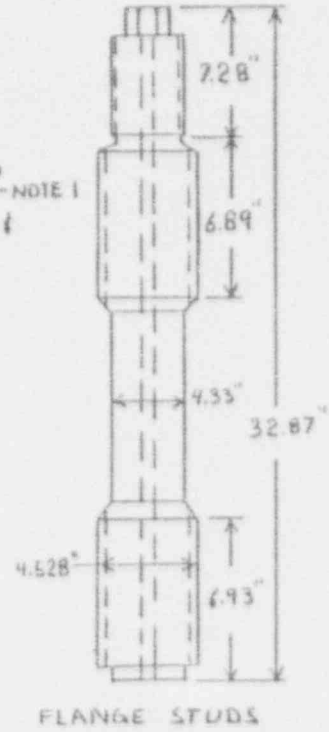
REV 0	DWG UNIT #1 ZONE 18
DRAWN BY D. G. HANSEN	TITLE: REACTOR COOLANT PUMP 2A
CHECKED BY JBS	

NOTES:

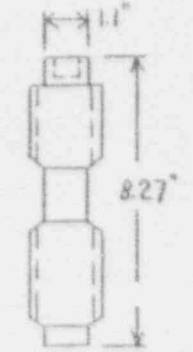
1) STUD LOCATIONS CW FROM DISCHARGE ℄

2) TAG NO. IMRLEP01D
SERIAL NO. 1109-2B(C-E)
N.B. NO. 23442





FLANGE STUDS

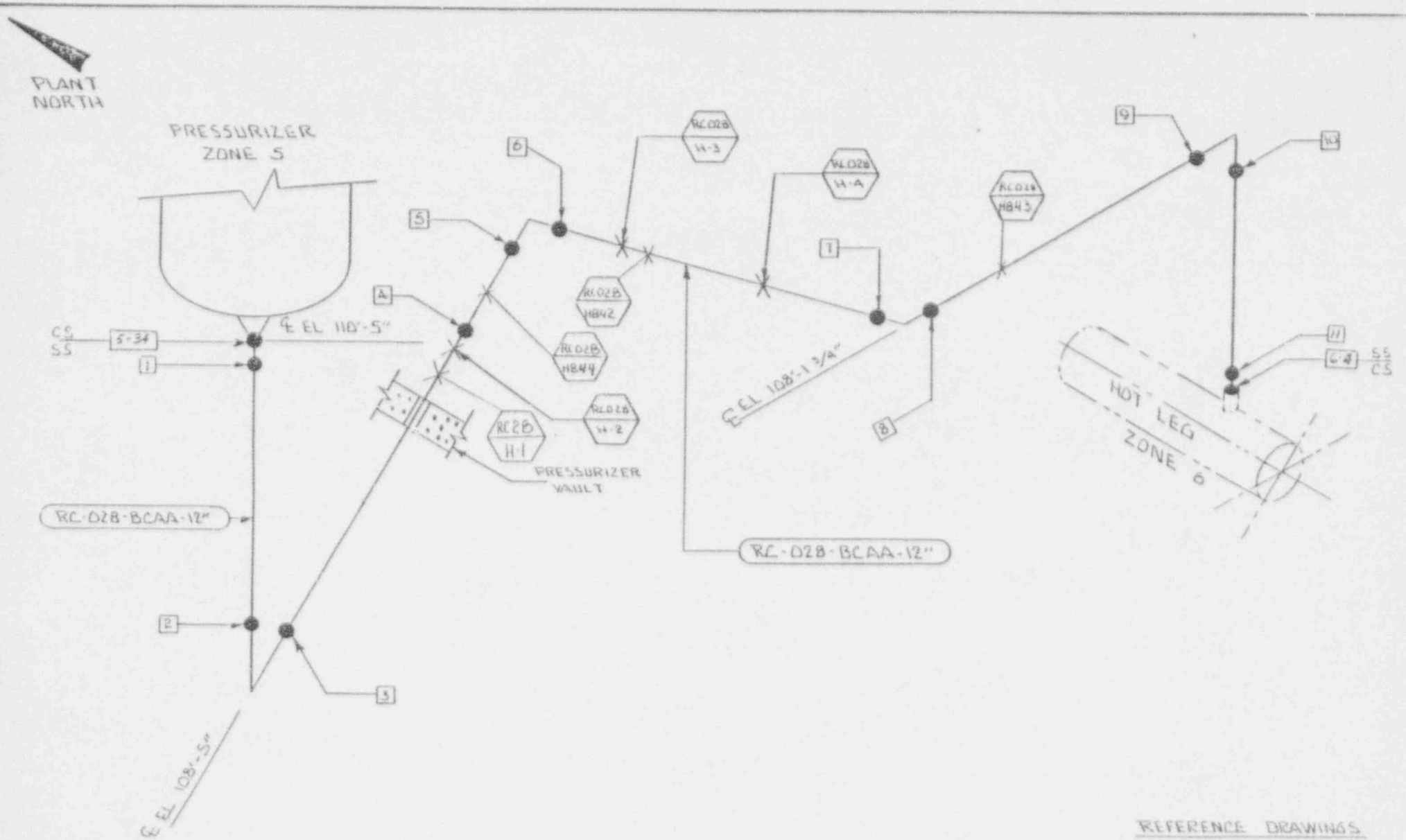


SEAL HOUSING STUDS

REFERENCE DWGS:

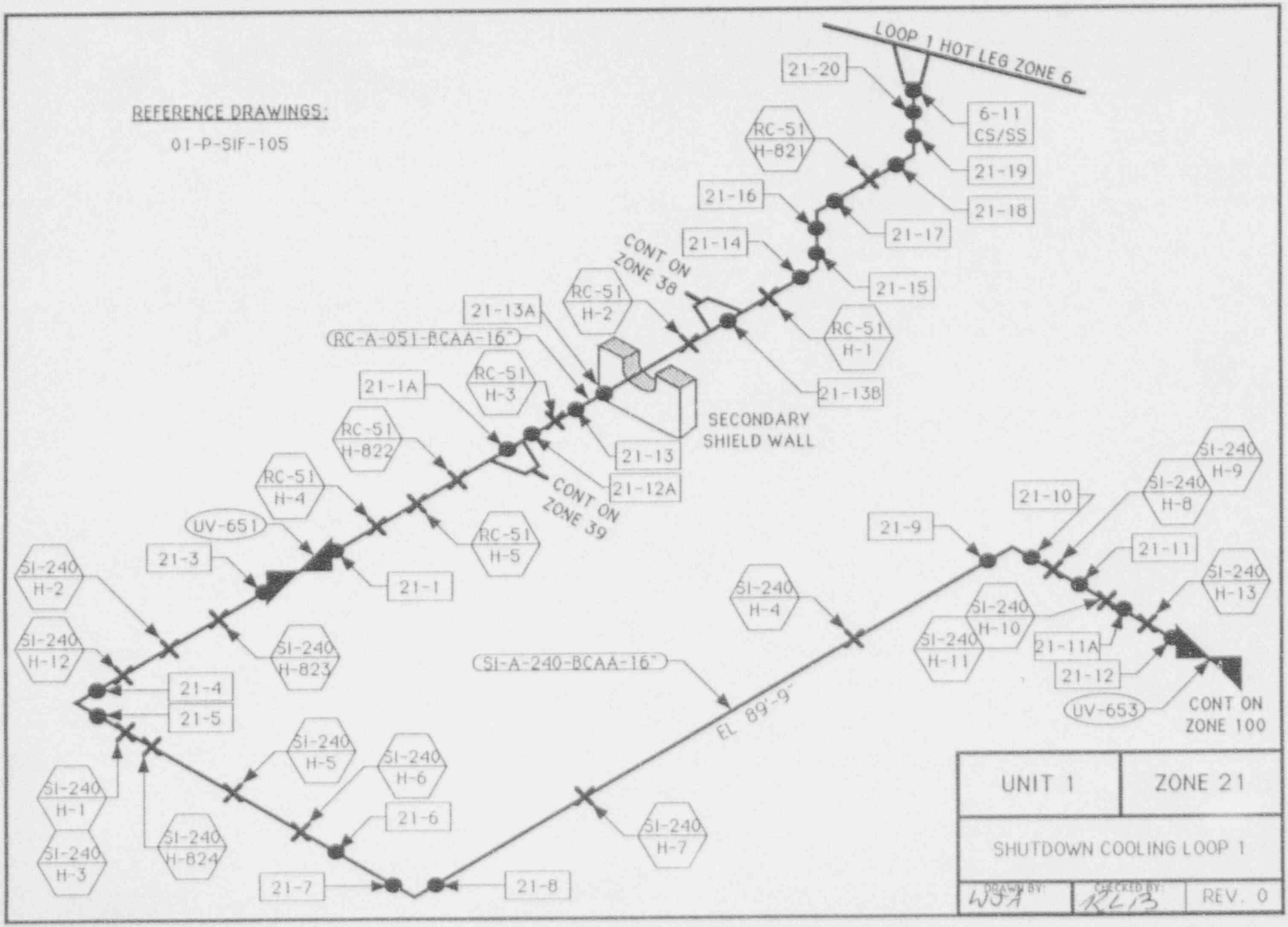
N001 - 6.02-41B
N001 - 6.02-42D THRU 423
N001 - 6.02-107 & 108

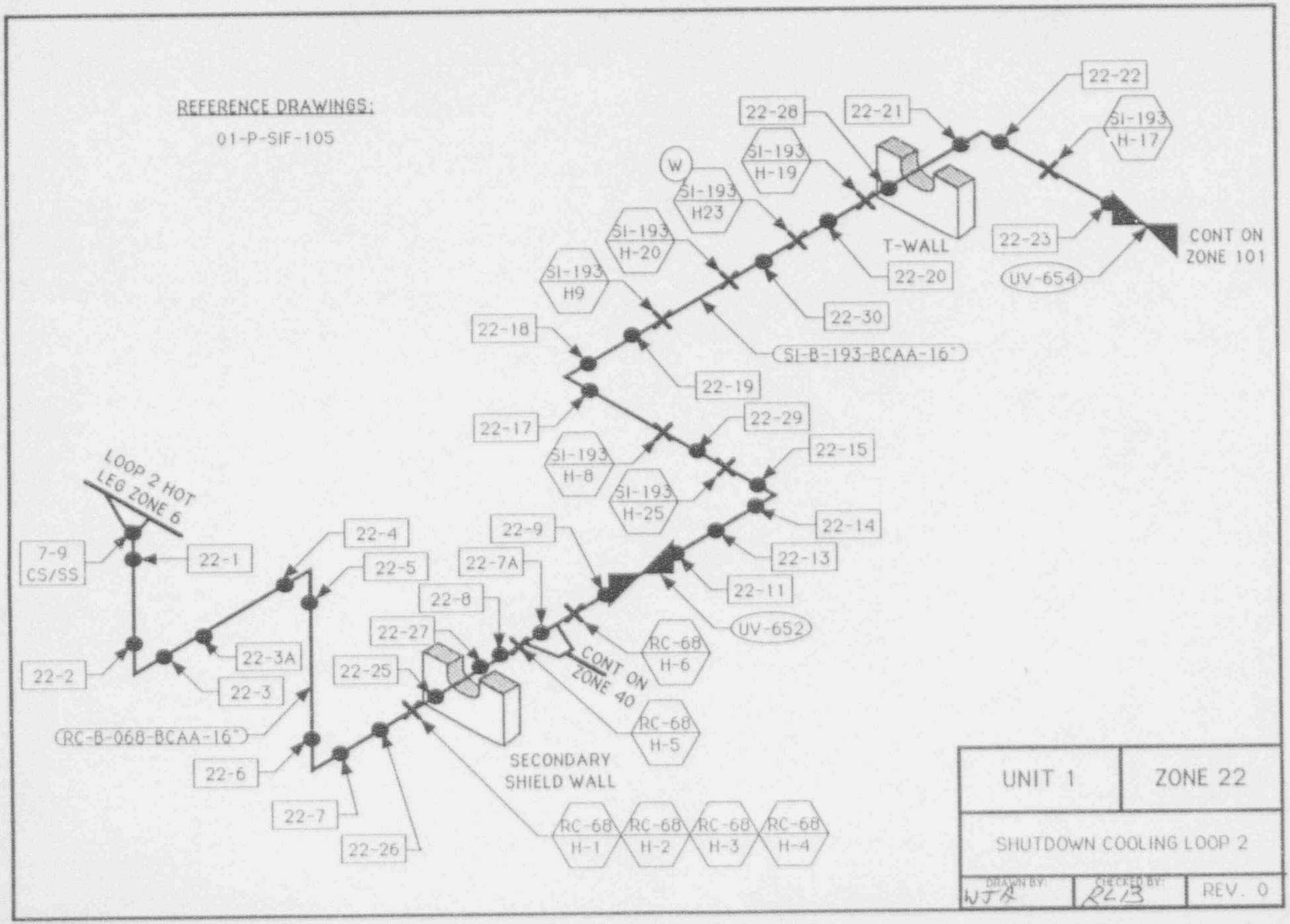
REV 0	DWG UNIT #1 ZONE 19
DRAWN BY D. G. HANSEN	TITLE: REACTOR COOLANT PUMP 2B
CHECKED BY JBS	

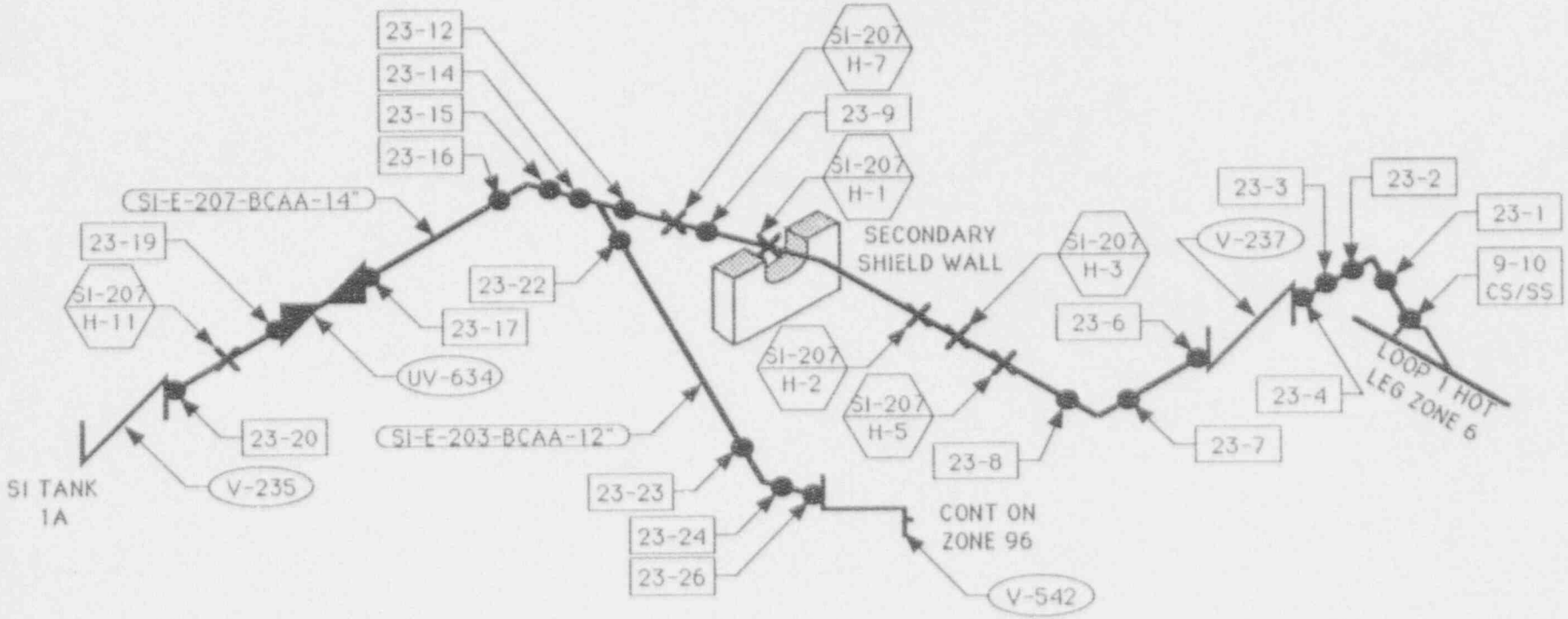


REFERENCE DRAWINGS
13-P-RCF-101

REV 0	DWG UNIT 1 ZONE 20
DRAWN BY J. WHITE	TITLE PRESSURIZER SURGE


REFERENCE DRAWINGS:
01-P-SIF-105
LOOP 1 HOT LEG ZONE 6
21-20
6-11 CS/SS
21-19
21-18
RC-51 H-821
21-16
21-17
21-14
21-15
CONT ON ZONE 38
RC-51 H-2
21-13A
RC-A-051-BCAA-16"
RC-51 H-1
21-13B
RC-51 H-3
21-1A
SECONDARY SHIELD WALL
RC-51 H-822
21-13
21-12A
RC-51 H-4
CONT ON ZONE 39
UV-651
RC-51 H-5
21-3
21-1
SI-240 H-2
SI-240 H-12
SI-240 H-823
21-4
21-5
SI-240 H-1
SI-240 H-3
SI-240 H-824
SI-240 H-5
SI-240 H-6
21-6
21-7
21-8
SI-A-240-BCAA-16"
EL 89'-9"
SI-240 H-4
SI-240 H-7
21-9
21-10
SI-240 H-9
SI-240 H-8
21-11
SI-240 H-13
SI-240 H-10
SI-240 H-11
21-11A
21-12
UV-653
CONT ON ZONE 100
UNIT 1
ZONE 21
SHUTDOWN COOLING LOOP 1
DRAWN BY: WJA
CHECKED BY: RLB
REV. 0

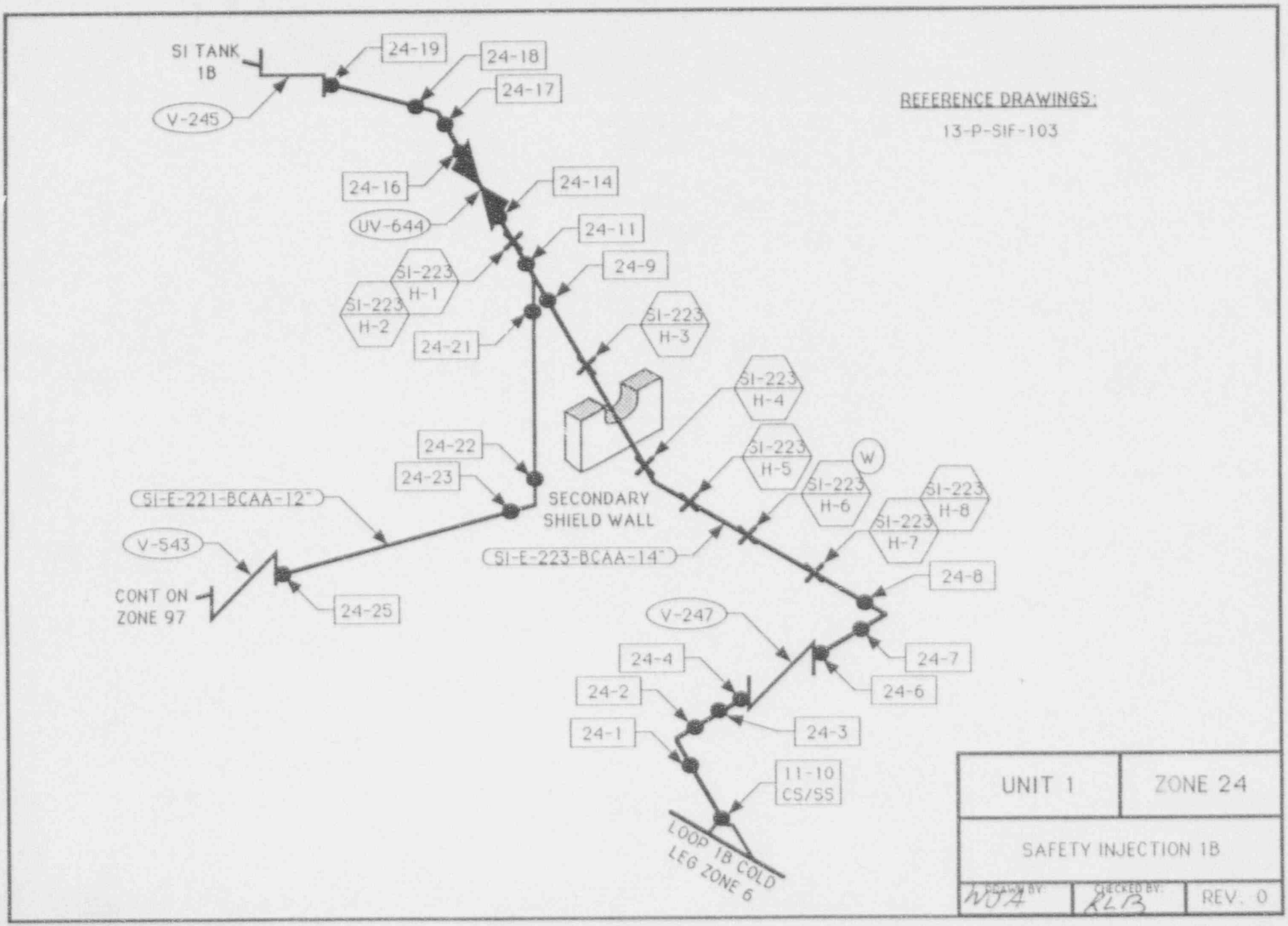

REFERENCE DRAWINGS:
01-P-SIF-105
22-22
22-28
22-21
SI-193 H-17
SI-193 H-19
W
SI-193 H23
SI-193 H-20
T-WALL
22-23
CONT ON ZONE 101
22-20
UV-654
SI-193 H9
22-30
22-18
SI-B-193-BCAA-16"
22-19
22-29
22-17
22-15
SI-193 H-8
SI-193 H-25
LOOP 2 HOT LEG ZONE 6
22-14
22-4
22-9
7-9 CS/SS
22-1
22-5
22-7A
22-13
22-8
22-11
22-27
UV-652
RC-68 H-6
22-2
22-3A
22-25
CONT ON ZONE 40
22-3
RC-68 H-5
RC-B-068-BCAA-16"
SECONDARY SHIELD WALL
22-6
22-7
22-26
RC-68 H-1
RC-68 H-2
RC-68 H-3
RC-68 H-4
UNIT 1
ZONE 22
SHUTDOWN COOLING LOOP 2
DRAWN BY: WJA
CHECKED BY: RLB
REV. 0

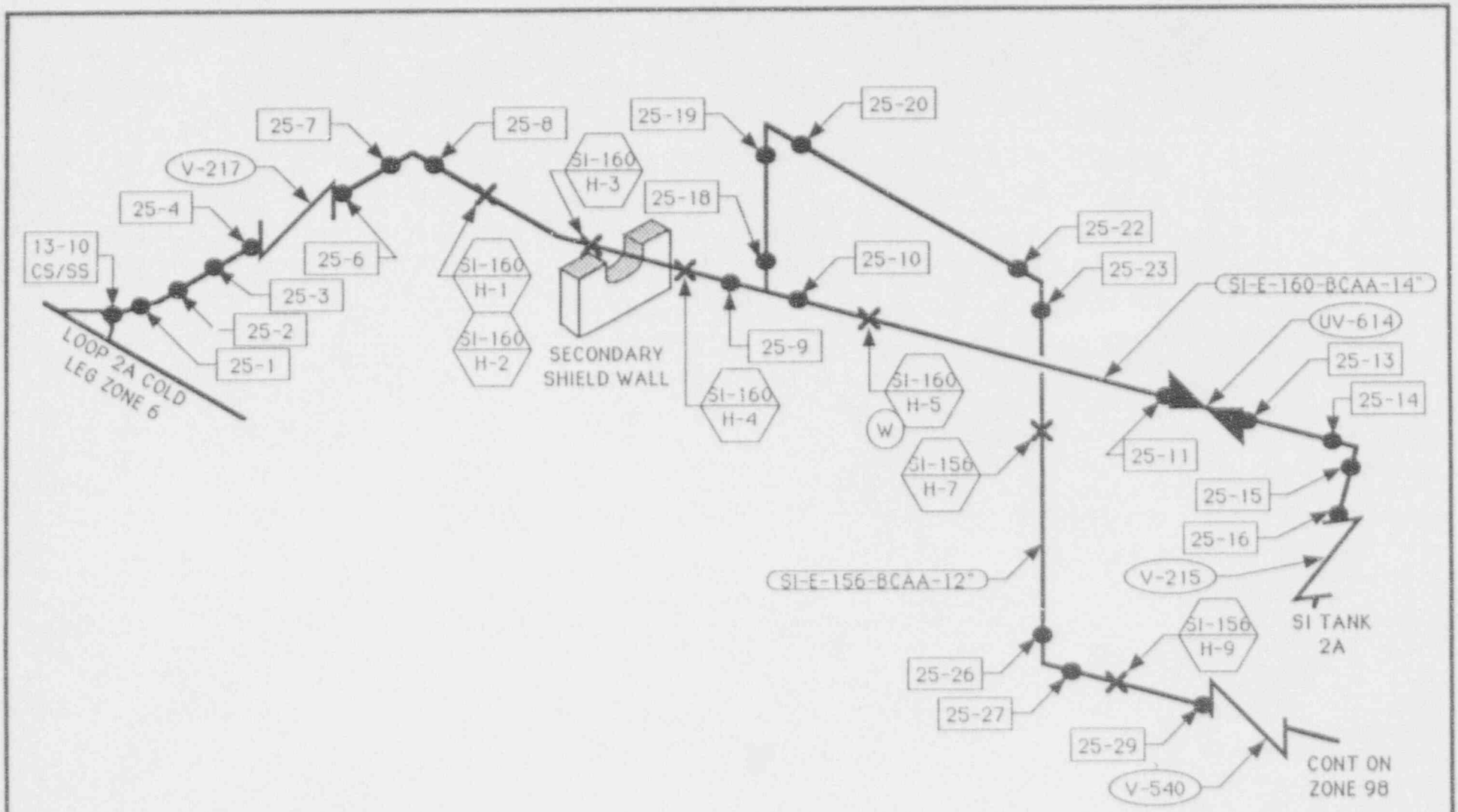


REFERENCE DRAWINGS:

13-P-SIF-103

UNIT 1	ZONE 23
SAFETY INJECTION 1A	
DRAWN BY: NJA	CHECKED BY: RLB
REV. 0	

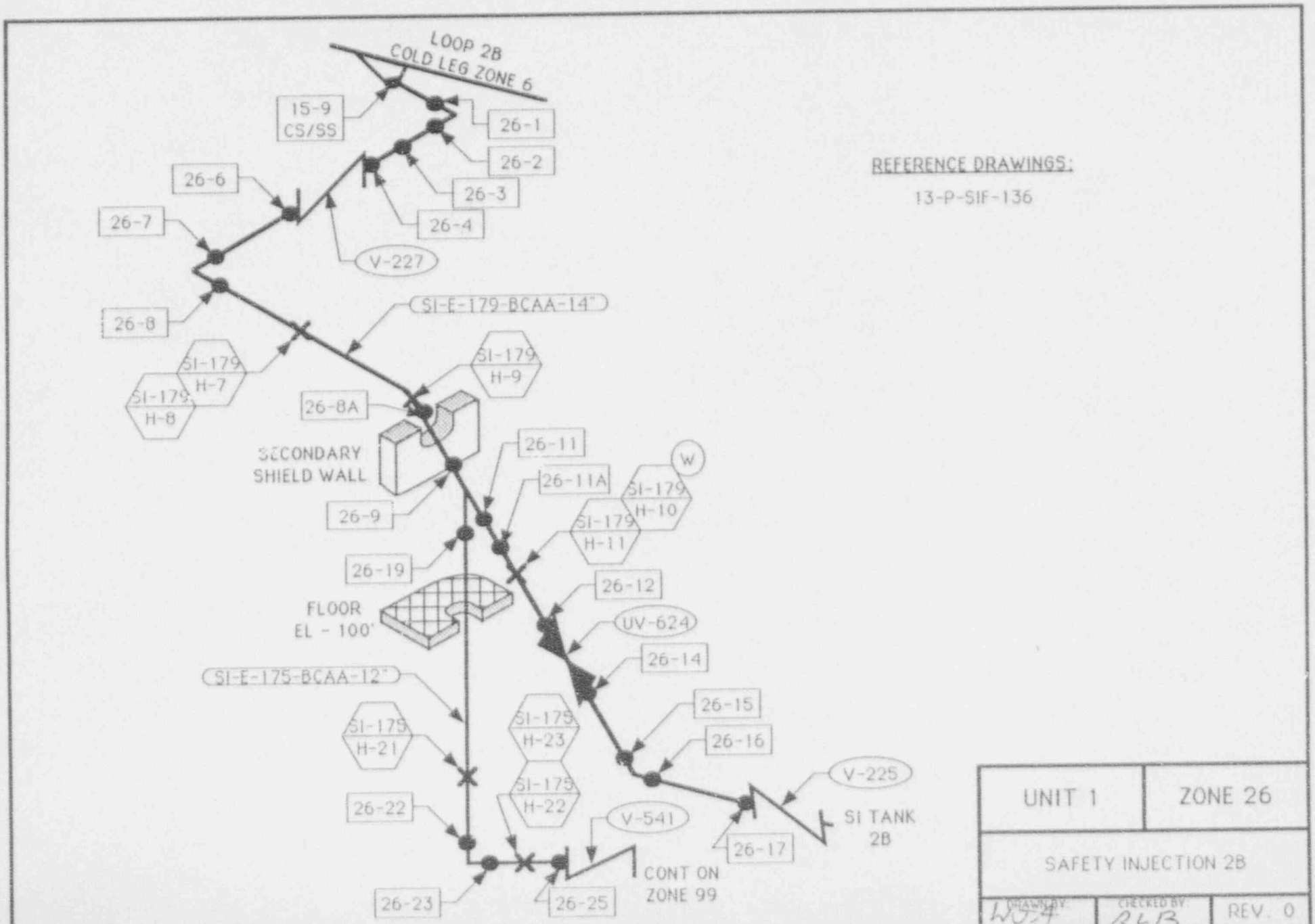

SI TANK 1B
V-245
24-19
24-18
24-17
24-16
UV-644
24-14
24-11
24-9
SI-223 H-1
SI-223 H-2
SI-223 H-3
24-21
SI-223 H-4
SI-223 H-5
W
SI-223 H-6
SI-223 H-8
SI-223 H-7
24-22
24-23
SECONDARY SHIELD WALL
SI-E-221-BCAA-12"
V-543
SI-E-223-BCAA-14"
24-8
CONT ON ZONE 97
24-25
V-247
24-4
24-7
24-2
24-6
24-3
24-1
11-10 CS/SS
LOOP 1B COLD LEG ZONE 6
REFERENCE DRAWINGS:
13-P-SIF-103
UNIT 1
ZONE 24
SAFETY INJECTION 1B
DRAWN BY: WJA
CHECKED BY: RLB
REV. 0



REFERENCE DRAWINGS:

13-P-SIF-136

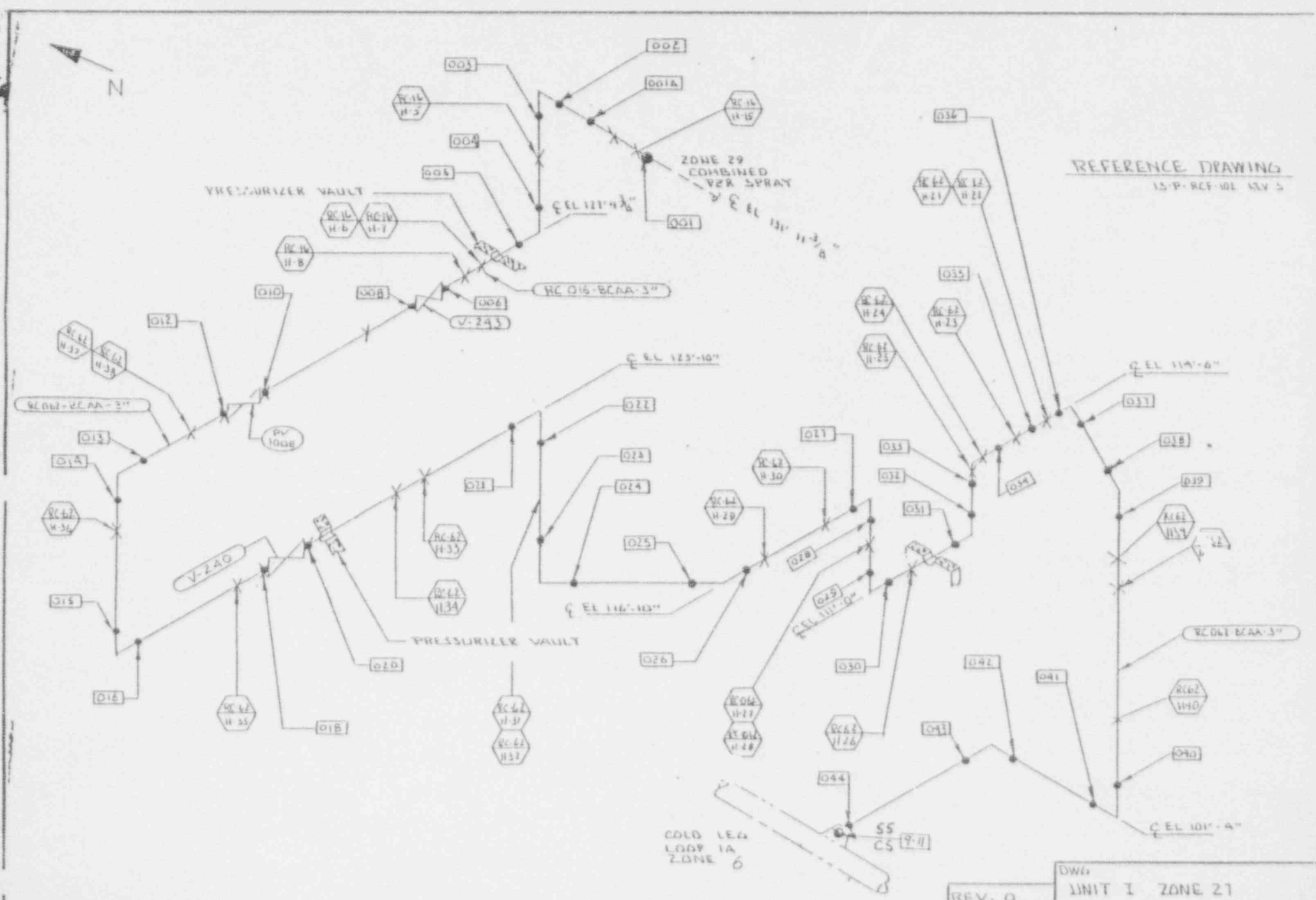
UNIT 1	ZONE 25
SAFETY INJECTION 2A	
DRAWN BY: WJA	CHECKED BY: RLB	REV. 0



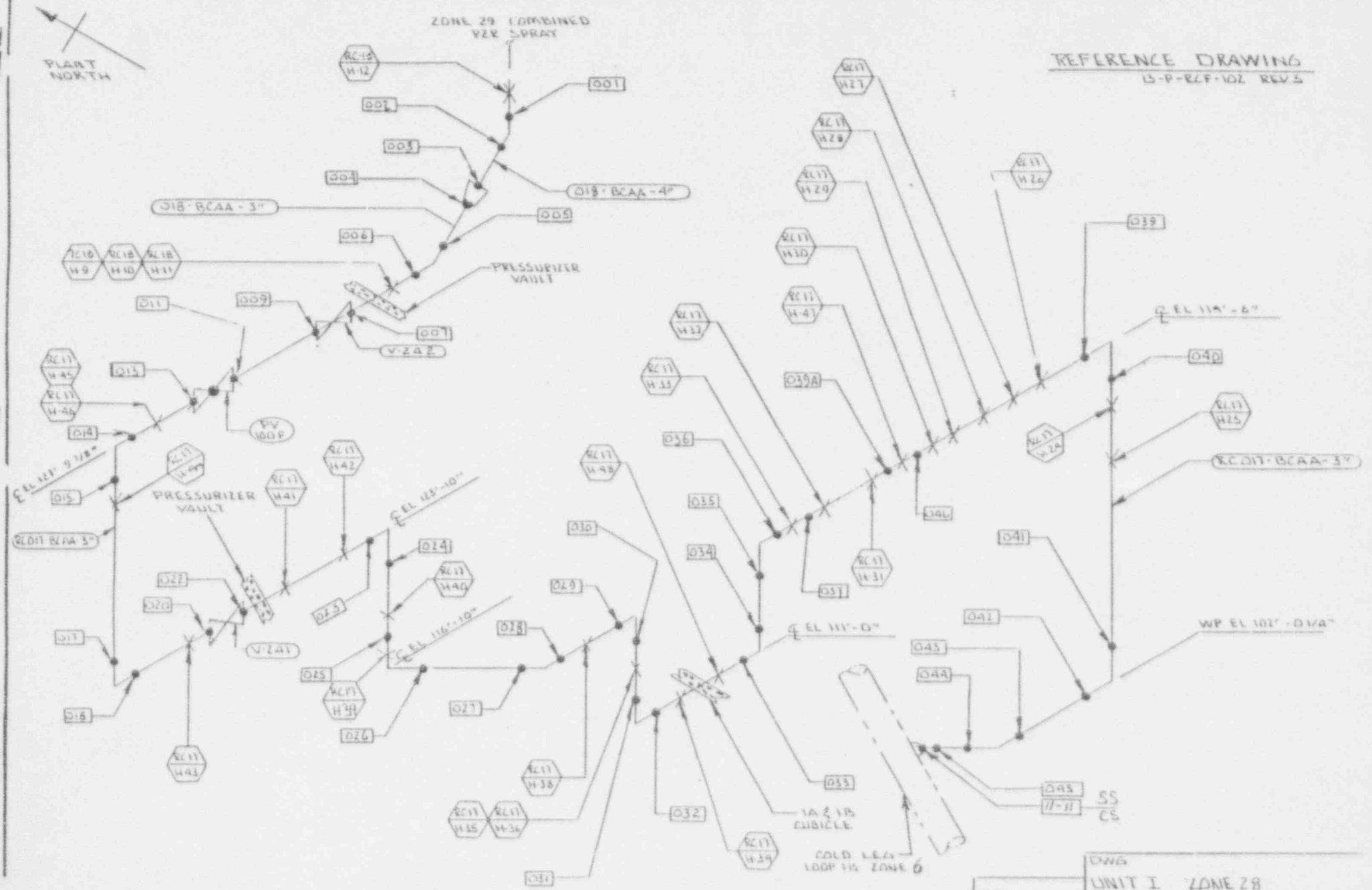
REFERENCE DRAWINGS:

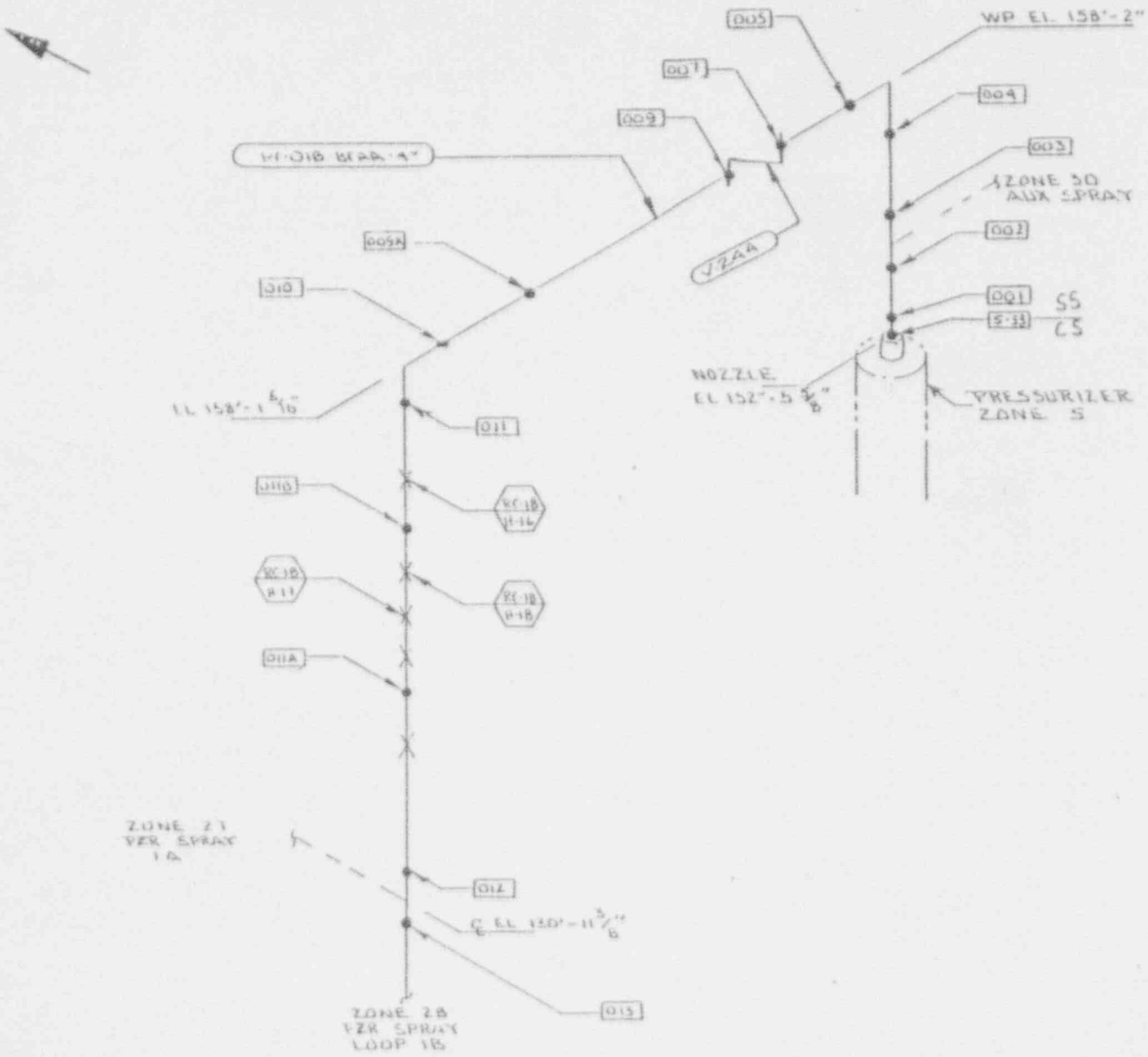
13-P-SIF-136

UNIT 1	ZONE 26
SAFETY INJECTION 2B	
DRAWN BY: WJ4	CHECKED BY: RLB
REV. 0	



REV. 0	DWG UNIT 1 ZONE 21
DRAWN BY: J. HOLLER	TITLE PRESSURIZER SPRAY 1A
CHECKED BY: TBS	

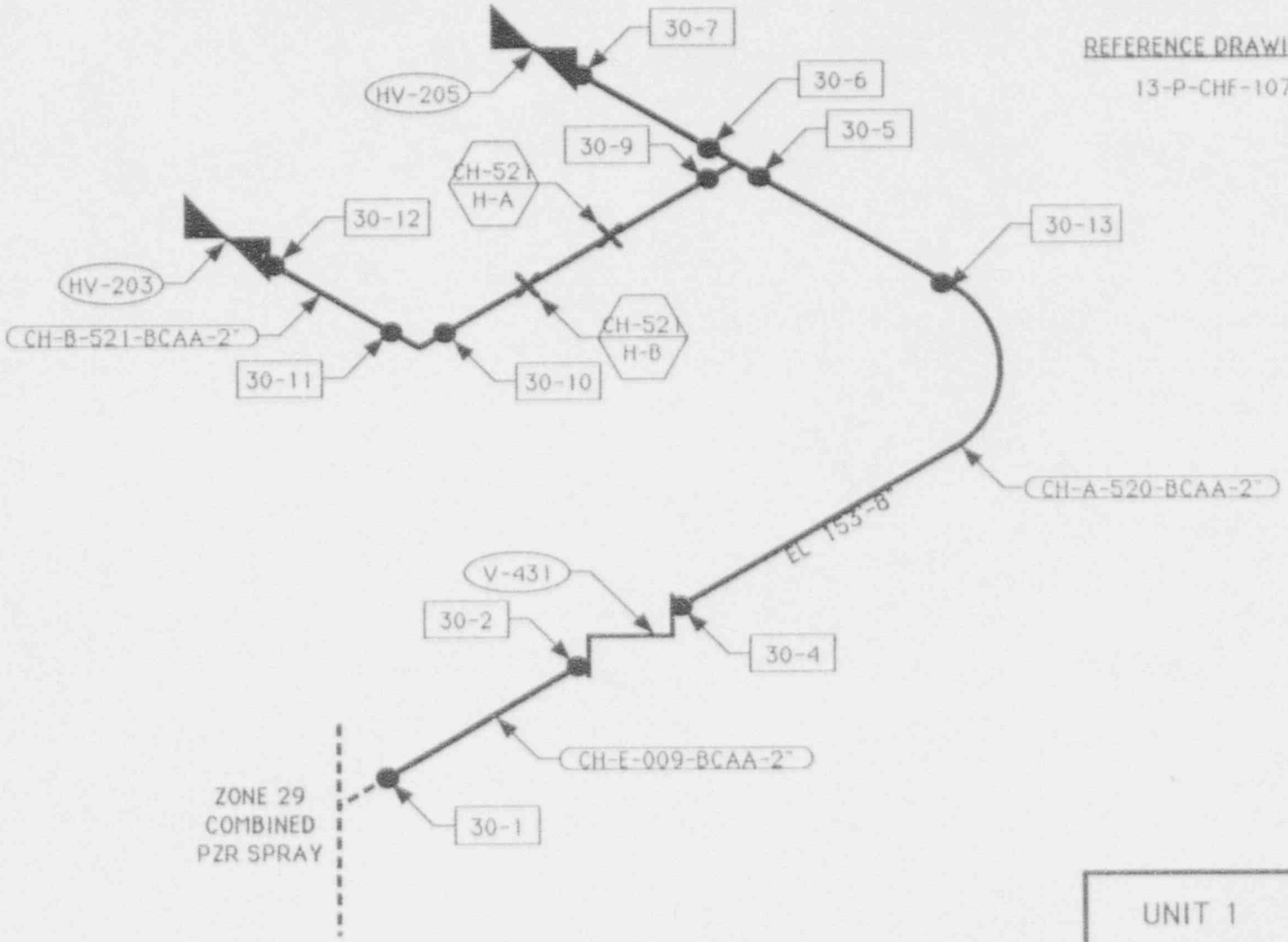

PLANT NORTH
ZONE 29 COMBINED PZR SPRAY
REFERENCE DRAWING
G-P-RCF-102 REV 5
001
002
003
004
018 - BCAA - 4"
018 - BCAA - 3"
005
006
PRESSURIZER VAULT
009
011
007
V-242
012
014
015
RCDIT BCAA 3"
PRESSURIZER VAULT
EL 123'-10"
024
022
020
023
V-241
013
016
025
026
027
028
030
029
031
EL 116'-10"
EL 111'-0"
032
033
1A & 1B CUBICLE
COLD LEG LOOP 1B ZONE 6
034
035
036
037
038
039
EL 119'-6"
040
041
042
043
044
045
11-11
SS
CS
WP EL 102'-0 1/4"
RCDIT-BCAA-3"
RCT H-9
RCT H-10
RCT H-11
RCT H-12
RCT H-26
RCT H-27
RCT H-28
RCT H-29
RCT H-30
RCT H-31
RCT H-32
RCT H-33
RCT H-34
RCT H-35
RCT H-36
RCT H-37
RCT H-38
RCT H-39
RCT H-40
RCT H-41
RCT H-42
RCT H-43
RCT H-45
RCT H-46
RCT H-48
RCT H-49
RCT V-24
RCT H-25
REV. 0
DRAWN BY: J. HOLLER
CHECKED BY: JBS
DWG UNIT 1 ZONE 28
TITLE PRESSURIZER SPRAY 1B



REFERENCE DRAWING

13-P-RCS-102- REV 5

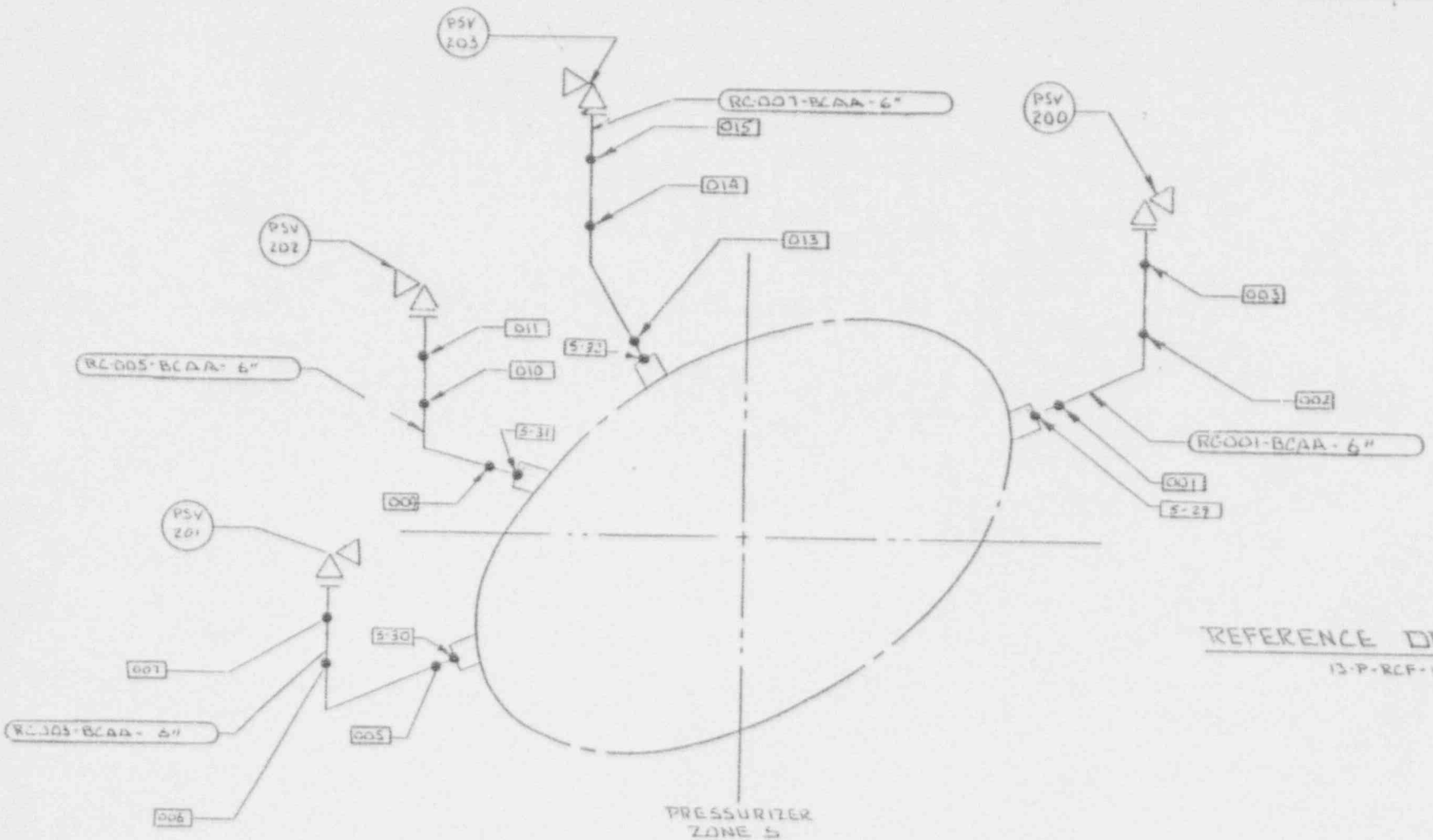
REV: 0	DWG UNIT 1 ZONE 29
DRAWN BY: J. HOLLER	TITLE COMBINED PRESSURIZER SPRAY
CHECKED BY: JBS	



REFERENCE DRAWINGS:

13-P-CHF-107

UNIT 1	ZONE 30
AUX PRESSURIZER SPRAY	
DRAWN BY: WJA	CHECKED BY: RLB
REV. 0	



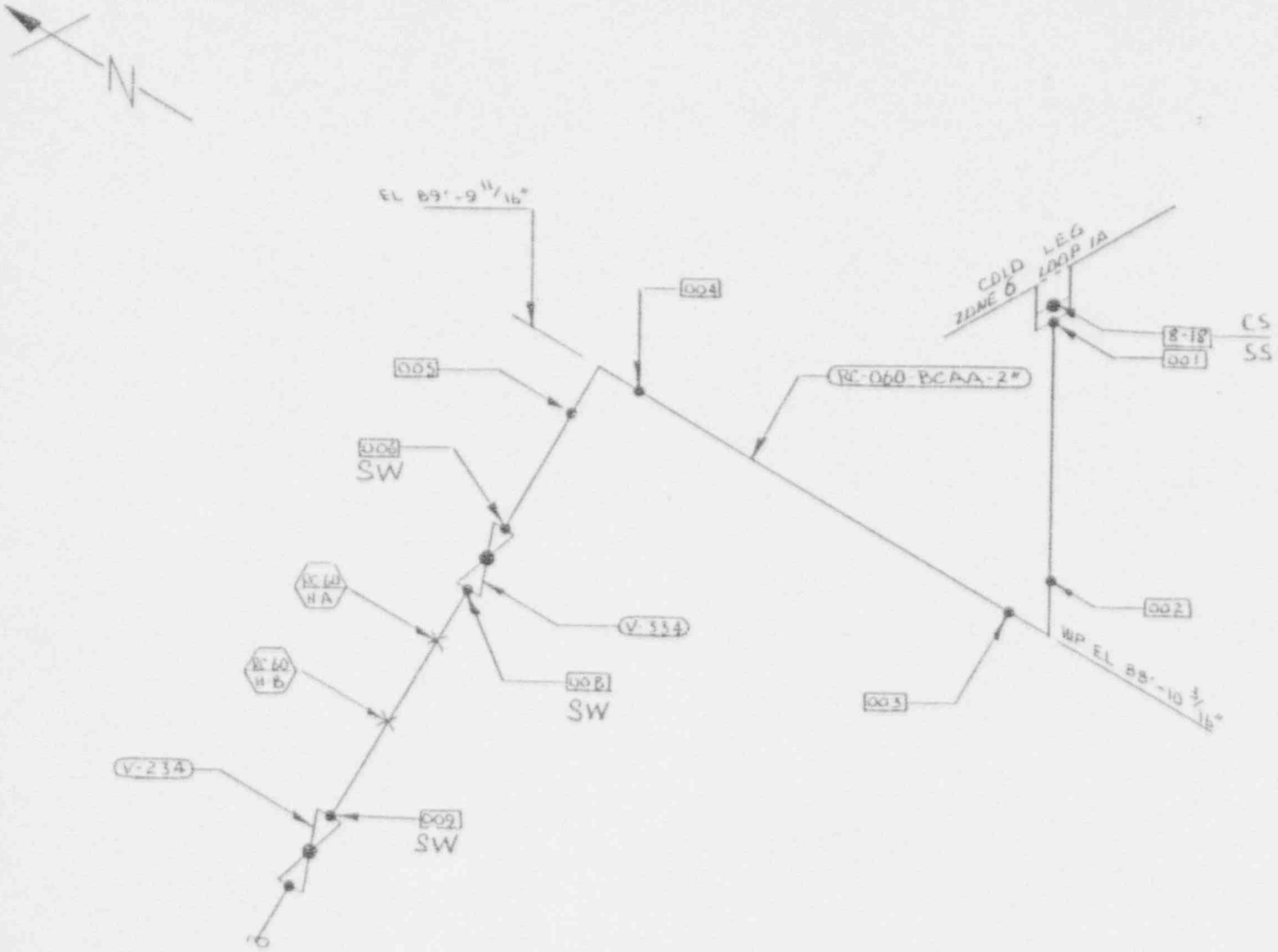
REFERENCE DRAWING

13-P-RCF-114 REV 4

NOTE:

8-2" X 13 1/2" STUDS / FLANGE

REV. 0	UNIT 1 ZONE 31
DRAWN BY: J. HOLLER	TITLE PRESSURIZER SAFETIES
CHECKED BY: JBS	

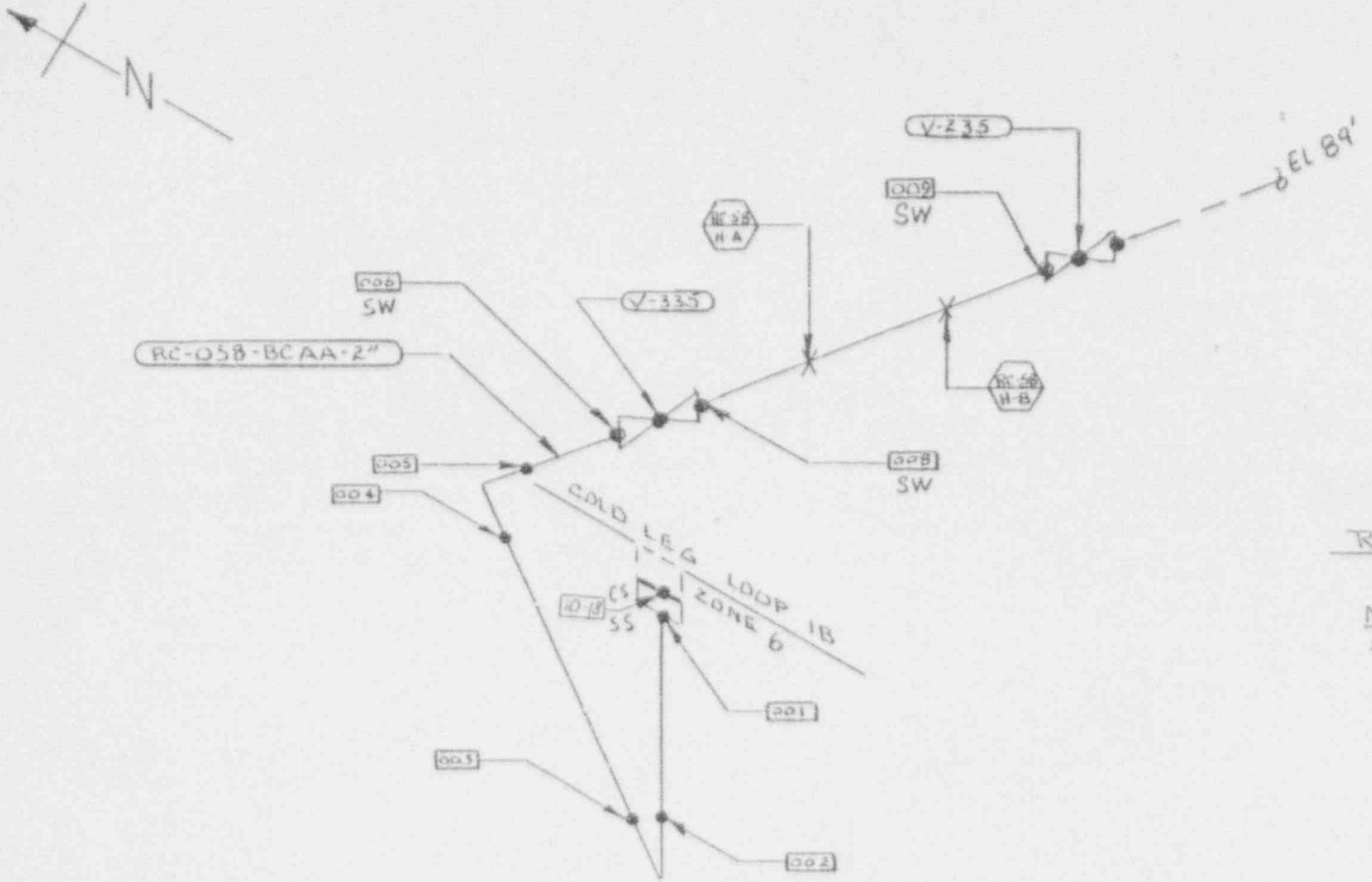


REFERENCE DRAWING

13-P-CHF-110 REV. 3

NOTE:
SW = SOCKET WELD

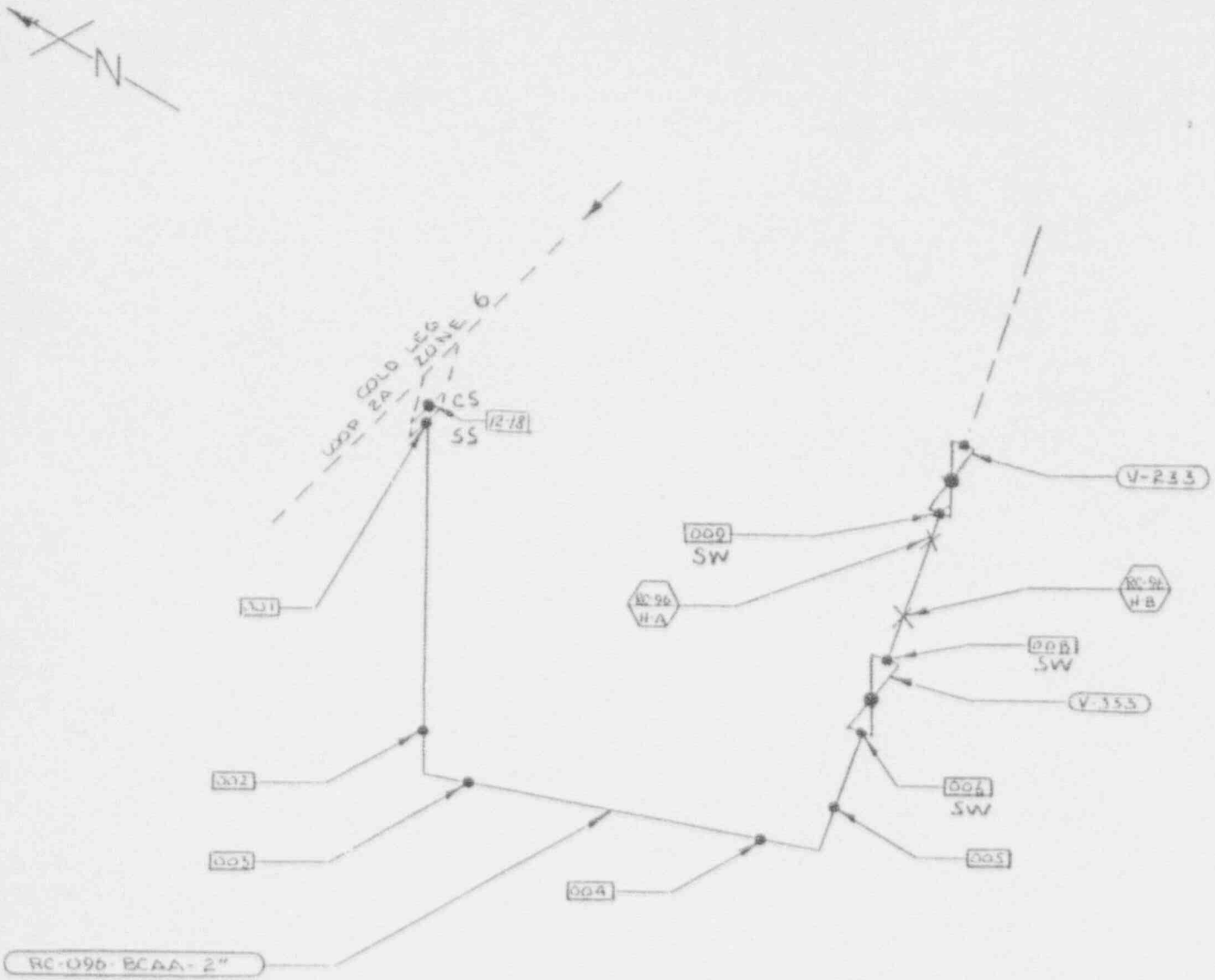
REV. 0	DWG. UNIT 1 ZONE 32
DRAWN BY: J. HOLLER	TITLE DRAIN LINE 1A
CHECKED BY: JBS	



REFERENCE DRAWING
13-P-CHF-110 REV 3

NOTE:
SW: SOCKET WELD

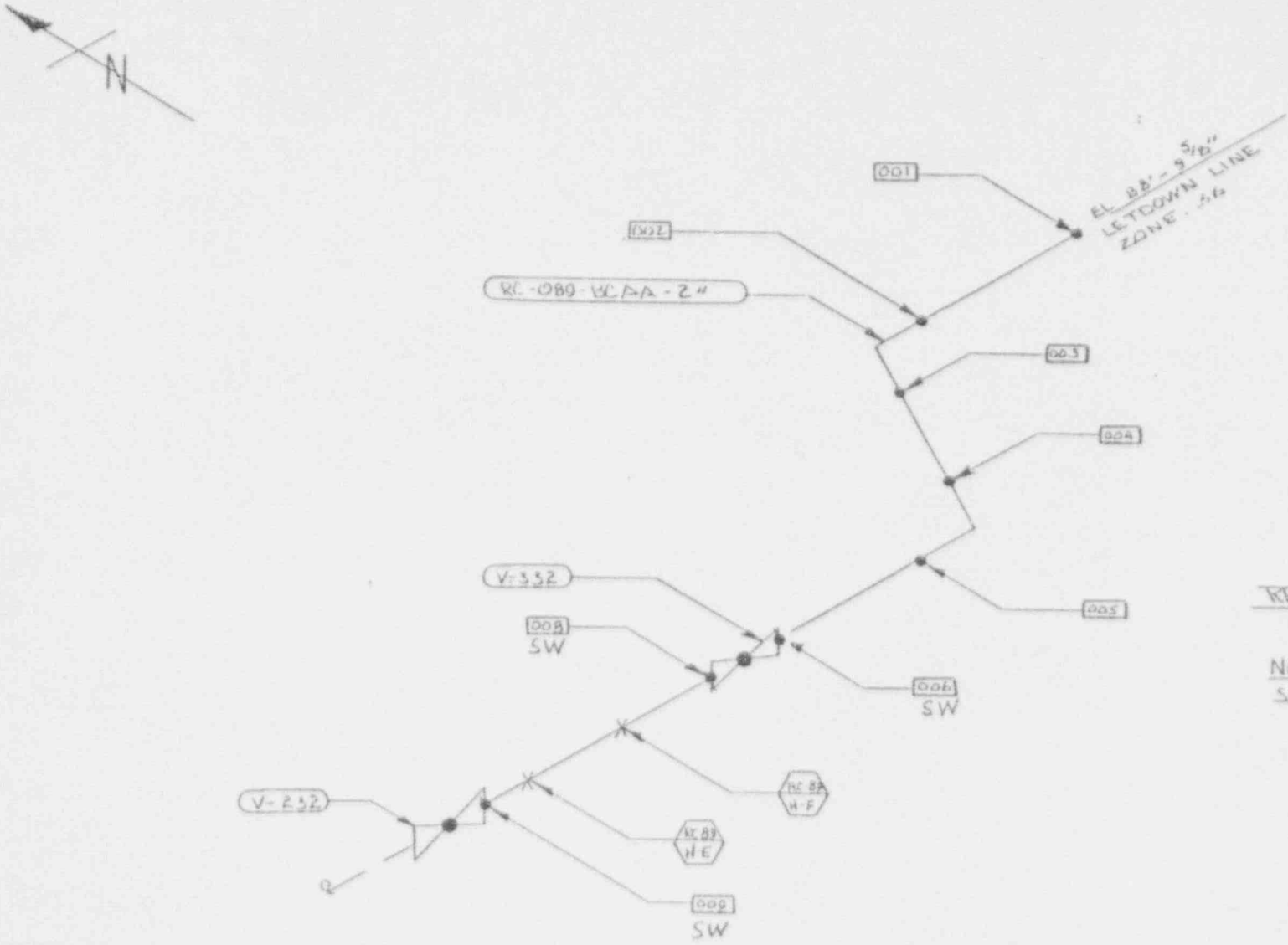
REV: 0	DWG UNIT 1 ZONE 33
DRAWN BY: J. HOLLER	TITLE DRAIN LINE 1B
CHECKED BY: JBS	



REFERENCE DRAWING

13-P-CHF-110 REV 3

REV. 0	UWG UNIT 1 ZONE 39
DRAWN BY: J. HOLLER	TITLE: DRAIN LINE 2A
CHECKED BY: JBS	



REFERENCE DRAWING
13-P-CHF-110 REV 3

NOTE:
SW: SOCKET WELD

REV 0	DWG UNIT 1 ZONE 35
DRAWN BY: J. HOLLER	TITLE: DRAIN LINE 2B
CHECKED BY: JBS	

REV 0

DRAWN BY: D. D. HANSEN

CHECKED BY: JBS

Dwng: UNIT 1 ZONE 36

TITLE: LETDOWN LINE

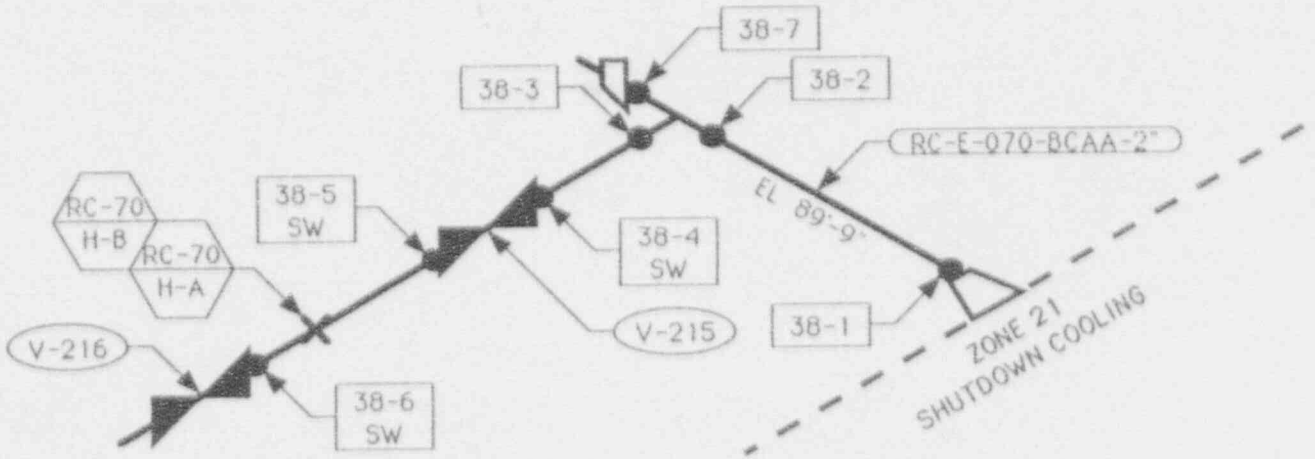
REV 0	DWG: UNIT #1 ZONE 37
DRAWN BY: D B HANSEN	TITLE: CHARGING LINE
CHECKED BY: JRS	

REFERENCE DRAWINGS:

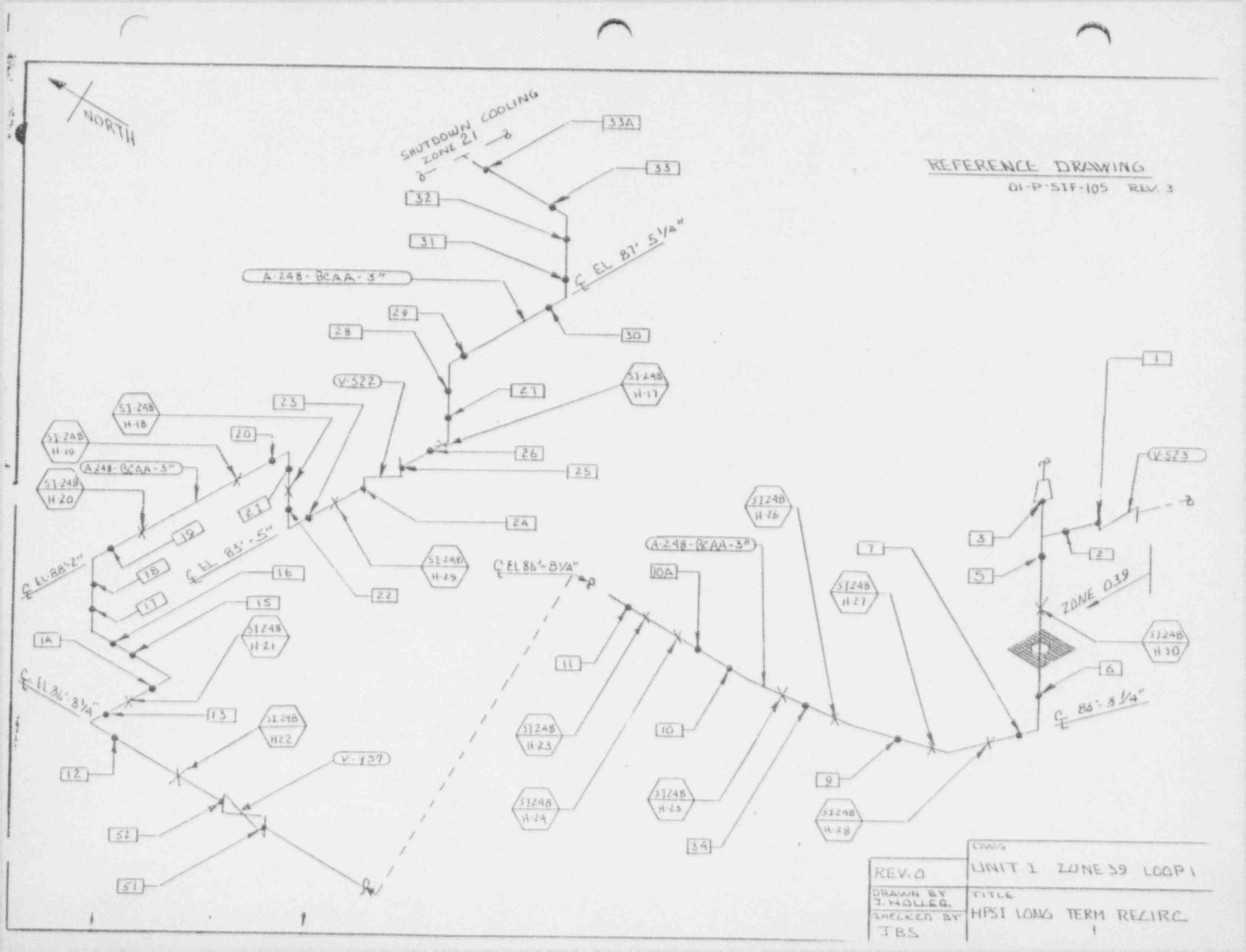
01-P-SIF-105

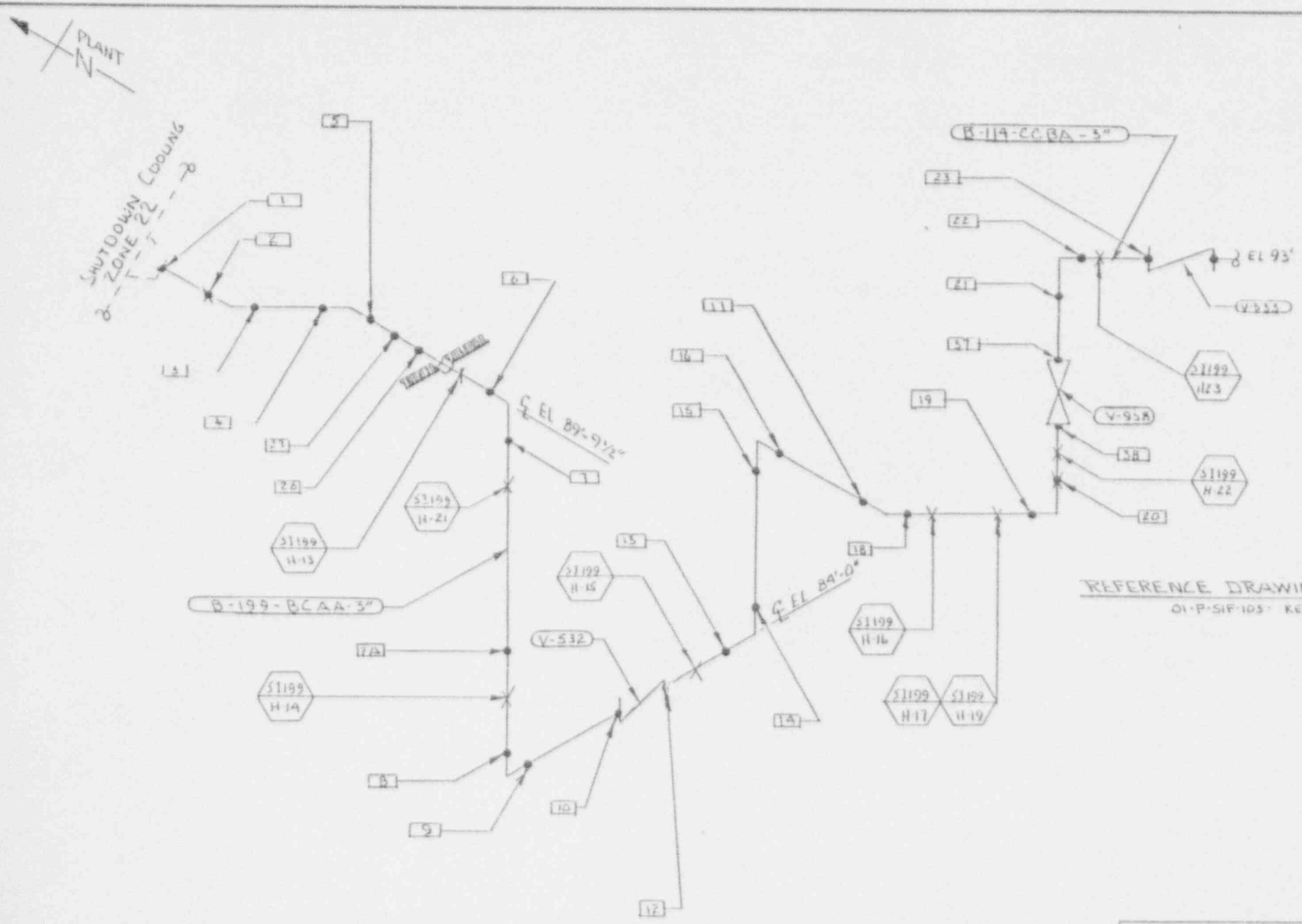
NOTE:

SW = SOCKET WELD

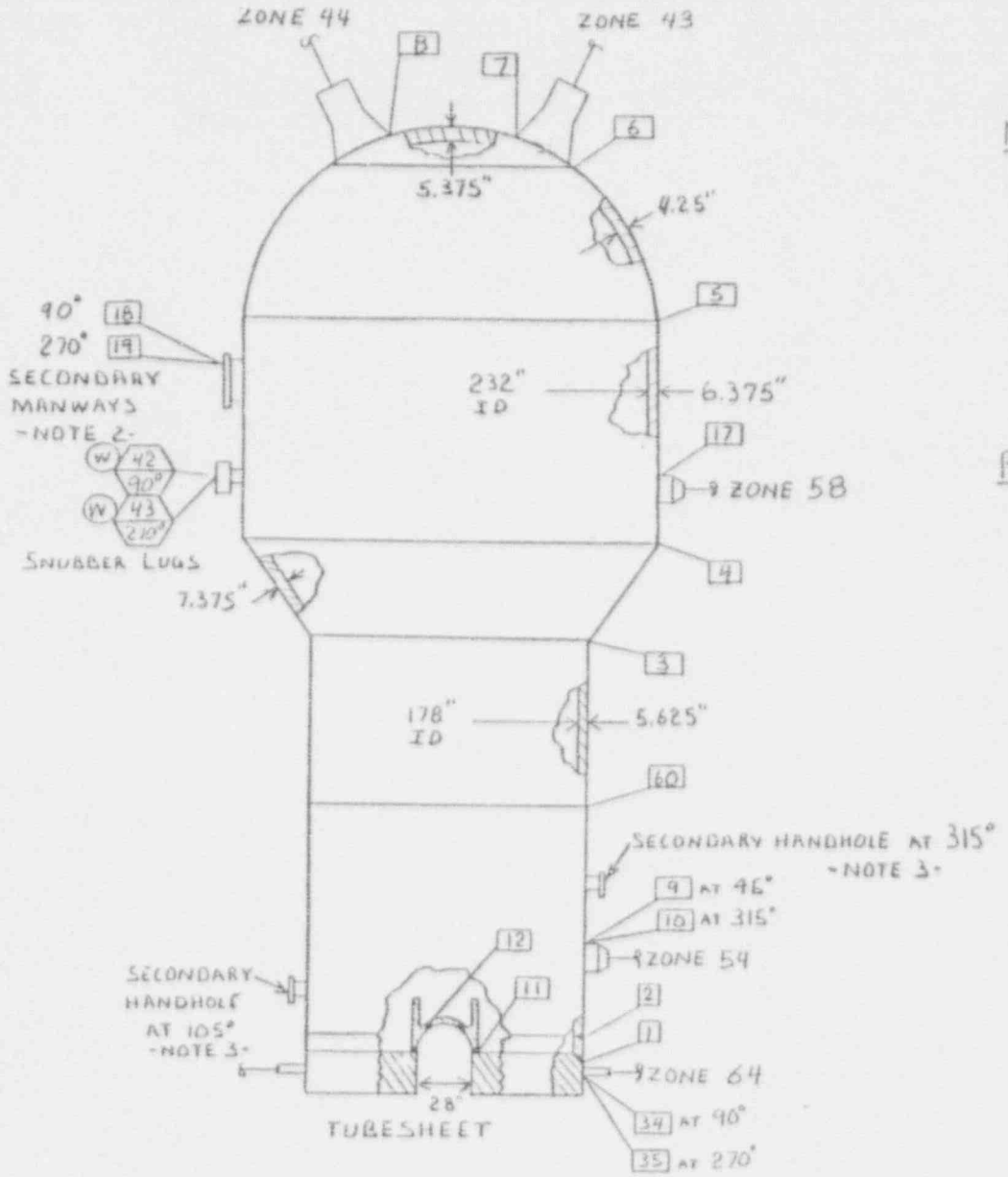


UNIT 1	ZONE 38
DRAIN LINE LOOP 1	
DRAWN BY: WJA	CHECKED BY: RLB
REV. 0	


NORTH
SHUTDOWN COOLING ZONE 21
REFERENCE DRAWING
01-P-51F-105 REV. 3
33A
33
32
31
℄ EL 87' 5 1/4"
A-248-BCAA-3"
29
28
30
V-522
27
S1248 H-17
S1248 H-18
23
S1248 H-19
20
26
25
A-248-BCAA-3"
S1248 H-20
21
24
19
18
S1248 H-29
22
℄ EL 85'-5"
℄ EL 88'-2"
16
17
15
S1248 H-21
14
℄ EL 84'-8 1/4"
13
S1248 H22
12
V-137
52
51
S1248 H-16
A-248-BCAA-3"
10A
℄ EL 86'-8 1/4"
11
S1248 H-23
10
S1248 H-24
S1248 H-25
34
7
S1248 H-27
9
S1248 H-28
1
V-523
3
2
5
ZONE 039
S1248 H-30
6
℄ 86'-8 1/4"
REV. 0
DWG
UNIT 1 ZONE 39 LOOP 1
DRAWN BY T. MOLLER
CHECKED BY JBS
TITLE
HPSI LONG TERM RECIRC



REV. 0	DWG UNIT 1 ZONE 40
DRAWN BY J. HOLLER	TITLE HPSI LONG TERM RECIRC 2
CHECKED BY JBS	



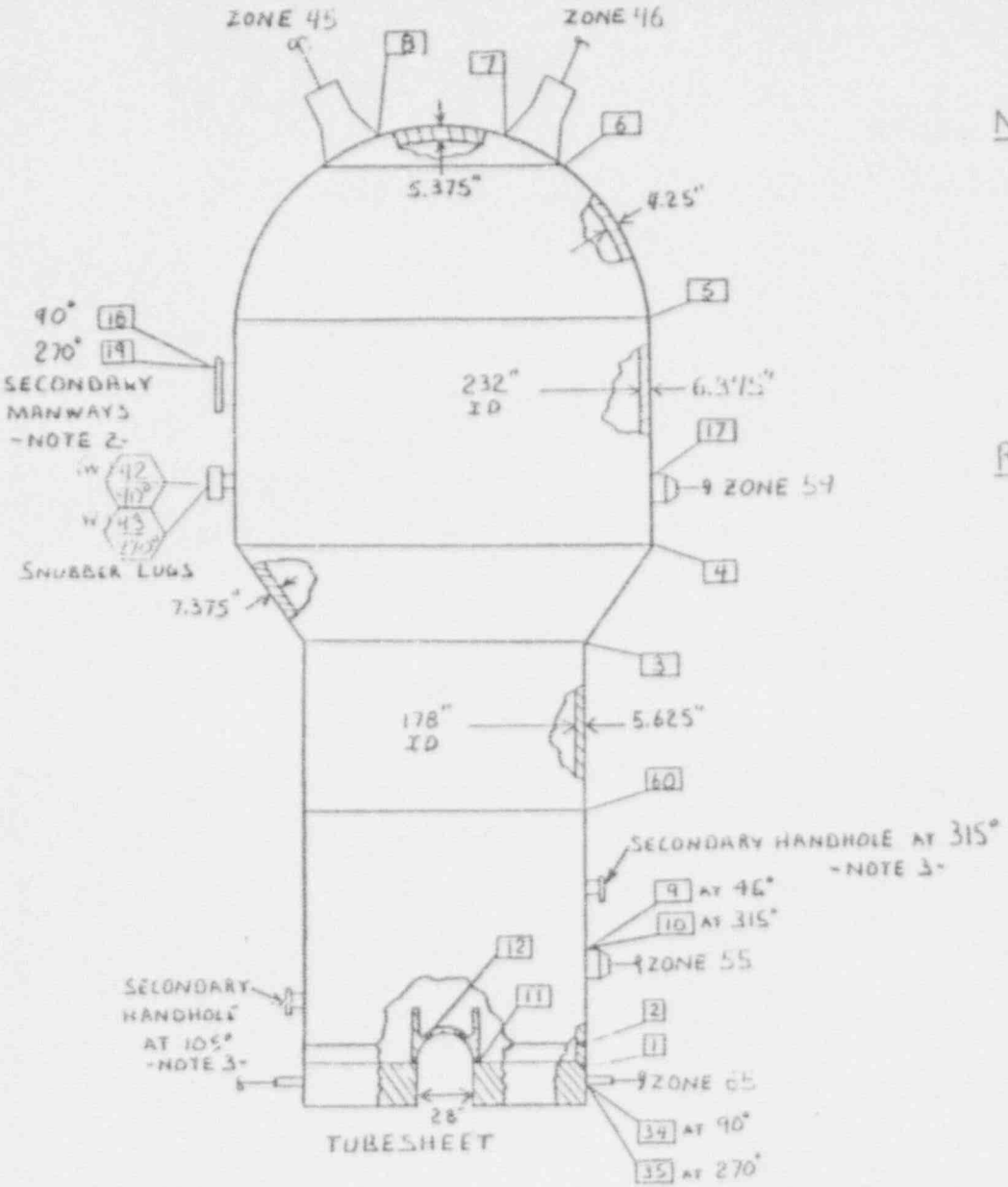
NOTES:

1) 0° IS AT ℄ OF HOT LEG
2) STUDS ARE 16- 1.5" x 9"
3) STUDS ARE 16- 1" x 6"
4) TAG NO. IMRCEE01A
   SERIAL NO. 78273-1 (C-E)
   N.B. NO. 22499

REFERENCE DWGS:

NOO1-6.03-9 AND 10
NOO1-6.03-103
NOO1-6.03-239

REV 0	DWG UNIT #1 ZONE 41
DRAWN BY D B HANSEN	TITLE: STEAM GENERATOR 1
CHECKED BY JBS	



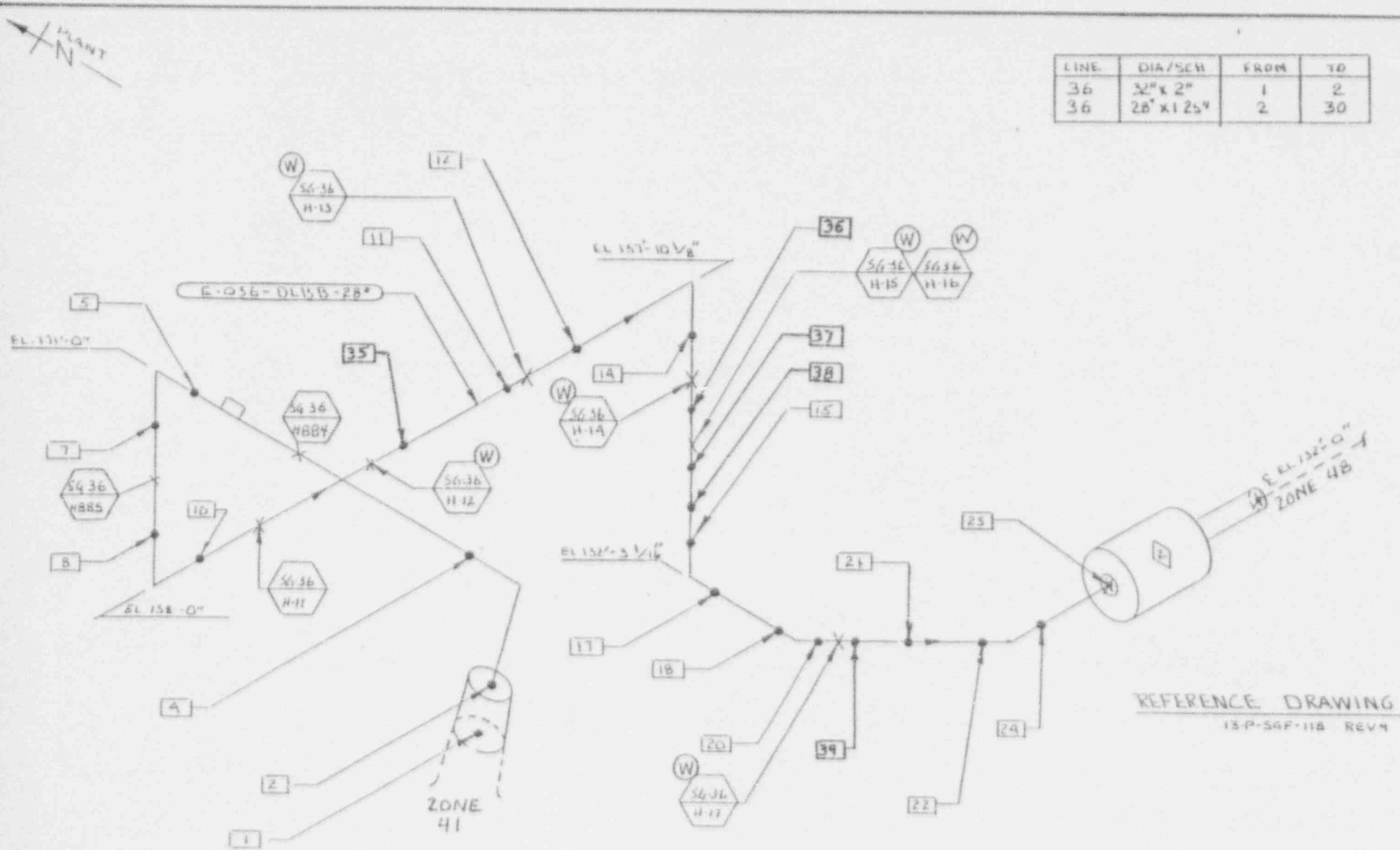
NOTES:

1) 0° IS AT ℄ OF HOT LEG
2) STUDS ARE 16- 1.5" x 9"
3) STUDS ARE 16- 1" x 6"
4) TAG NO. 1MRCEF018
   SERIAL NO. 78273-2 (1 C)
   N.B. NO. 22500

REFERENCE DWGS:

NO01-6.03-9 AND 10
NO01-6.03-103
NO01-6.03-239

REV D	DWG UNIT #1 ZONE 42
DRAWN BY D.B. HANSEN	TITLE: STEAM GENERATOR 2
CHECKED BY JBS	

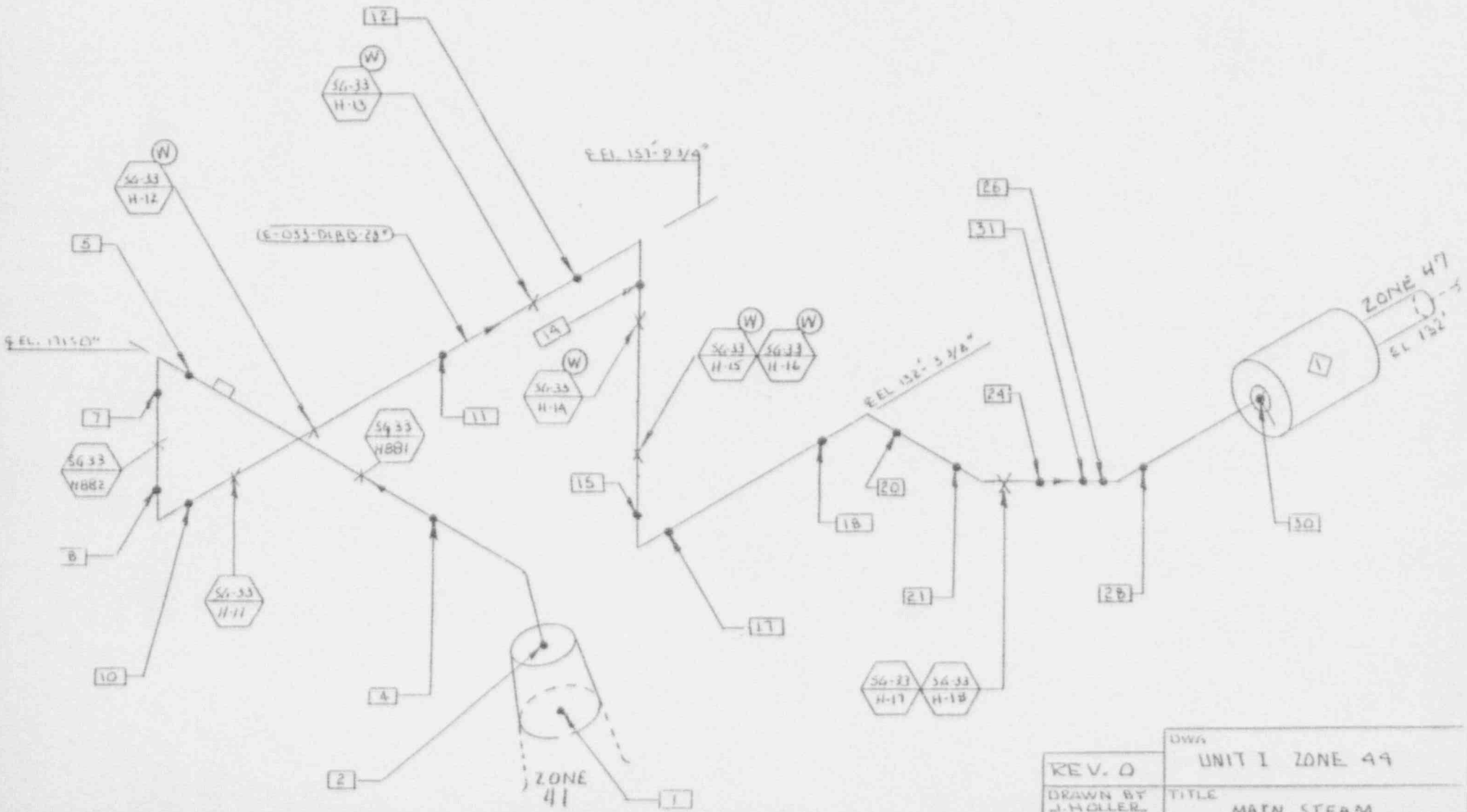


REV. 0	DWG UNIT 1 ZONE 43
DRAWN BY: J. HOELER	TITLE MAIN STEAM SG 1 EAST
CHECKED BY: JBS	

LINE	DIA/SCH	FROM	TO
33	32" x 2"	1	2
33	28" x 1.25"	2	30

REFERENCE DRAWING

15-P-SGP-118 REV 4

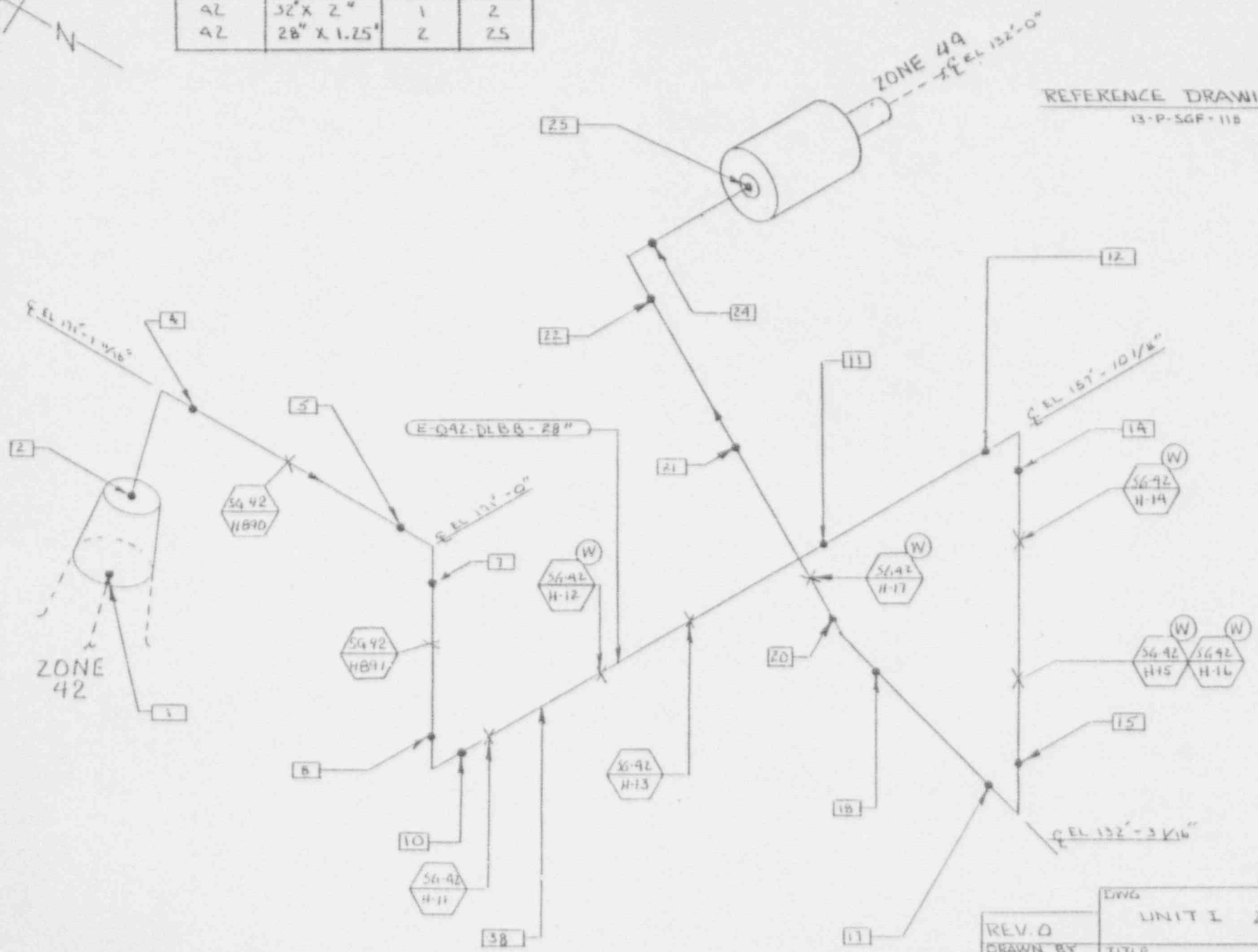


REV. 0	DWG UNIT 1 ZONE 49
DRAWN BY J. MOLLER	TITLE MAIN STEAM SG 1 WEST
CHECKED BY JBS	

LINE #	DIA/SCH	FROM	TO
42	32" X 2"	1	2
42	28" X 1.25"	2	25

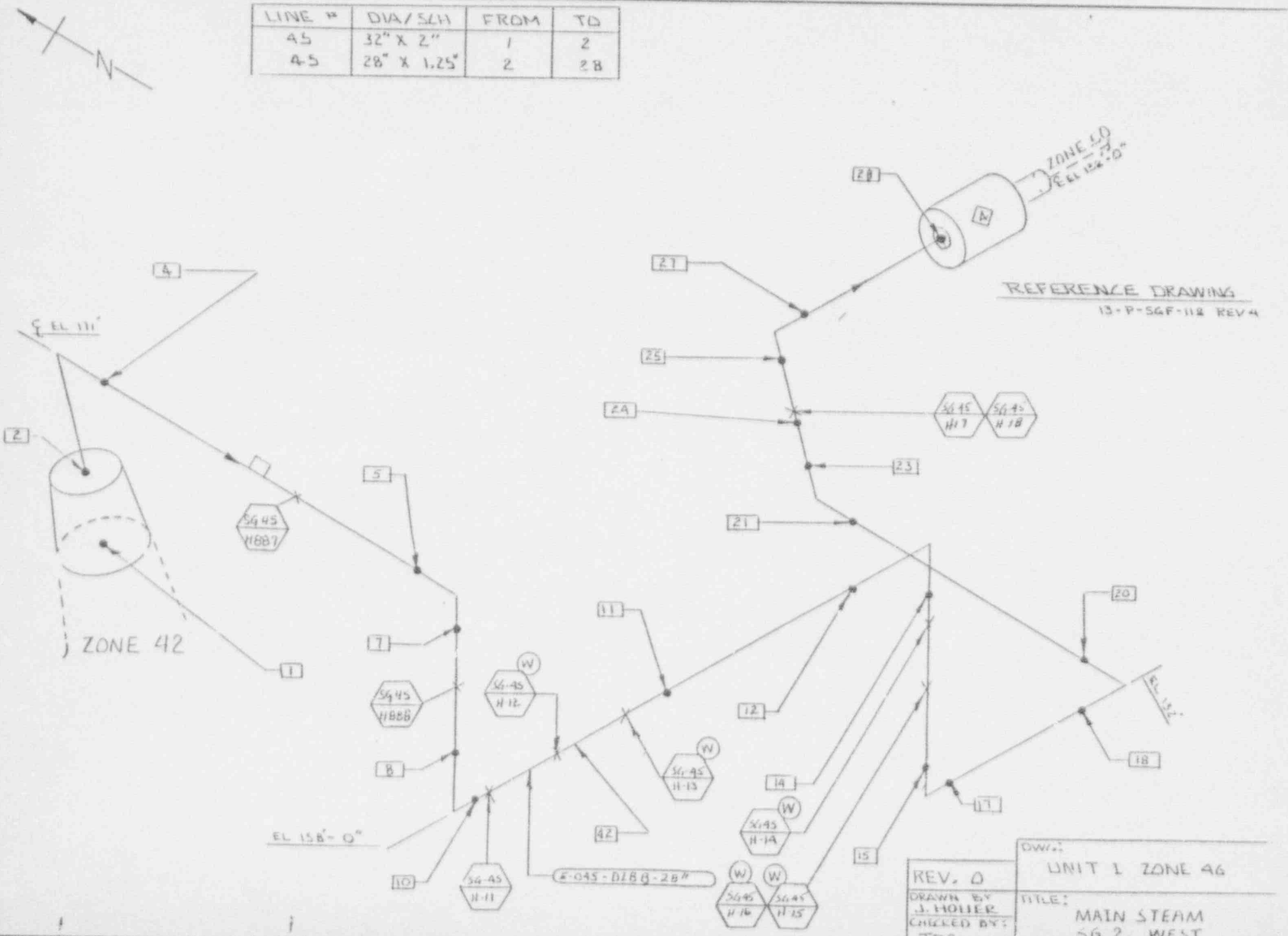
N

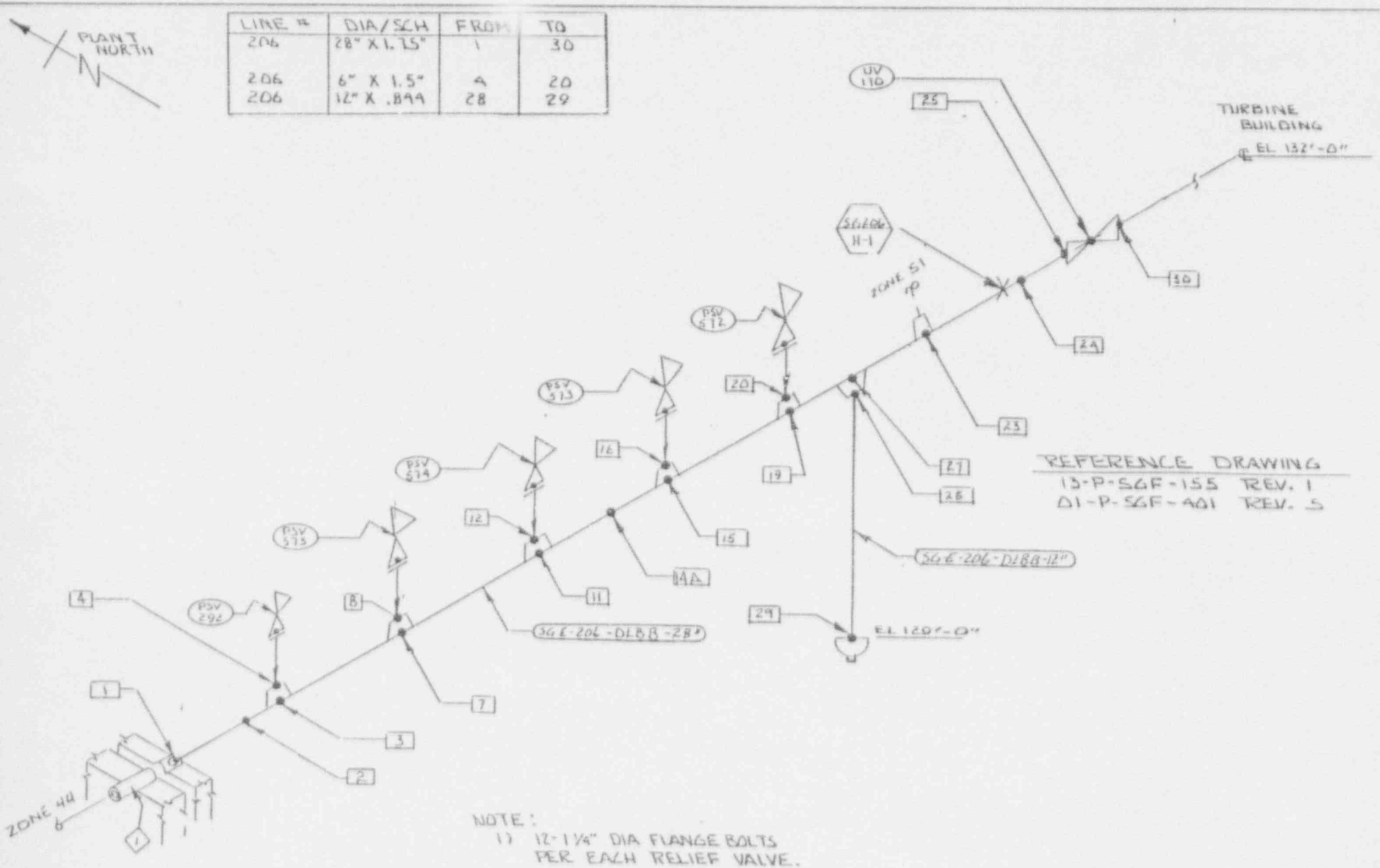
REFERENCE DRAWING
13-P-SGF-118 REV 4



REV. 0	DWG UNIT 1 ZONE 45
DRAWN BY J. HOLLER	TITLE MAIN STEAM SG 2 EAST
CHECKED BY JES	

LINE #	DIA / SCH	FROM	TO
45	32" X 2"	1	2
45	28" X 1.25"	2	28



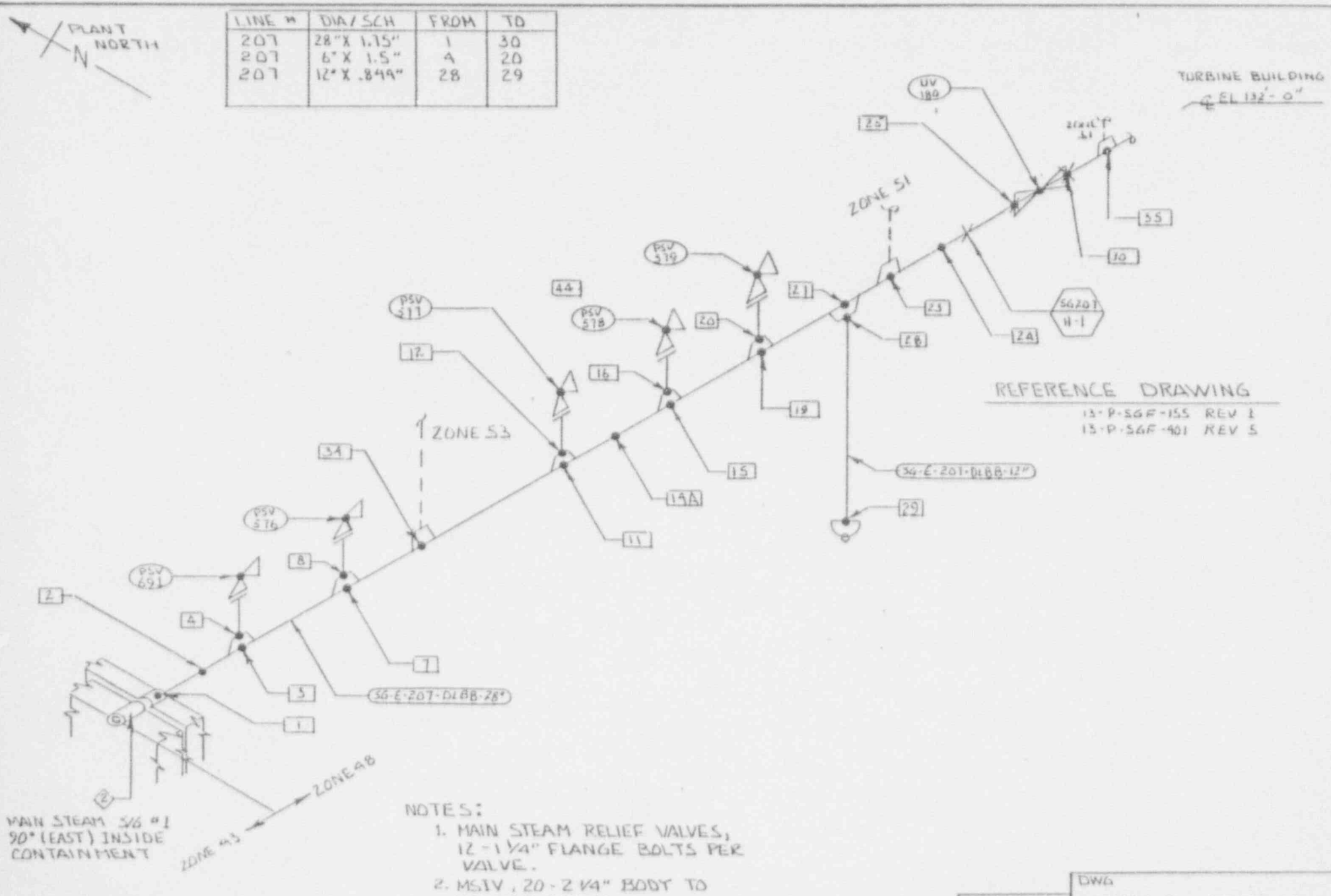


LINE #	DIA/SCH	FROM	TO
206	28" X 1.75"	1	30
206	6" X 1.5"	4	20
206	12" X .899	28	29

NOTE:

1) 12-1¼" DIA FLANGE BOLTS PER EACH RELIEF VALVE.
2) MSIV 20-2¼" BODY TO BONNET BOLTS

REV. 0	DWG UNIT 1 ZONE 47
DRAWN BY J. HOLLER	TITLE MAIN STEAM S/G #1 (WEST)
CHECKED BY JBS	



LINE #	DIA / SCH	FROM	TO
207	28" X 1.15"	1	30
207	6" X 1.5"	4	20
207	12" X .849"	28	29

REFERENCE DRAWING

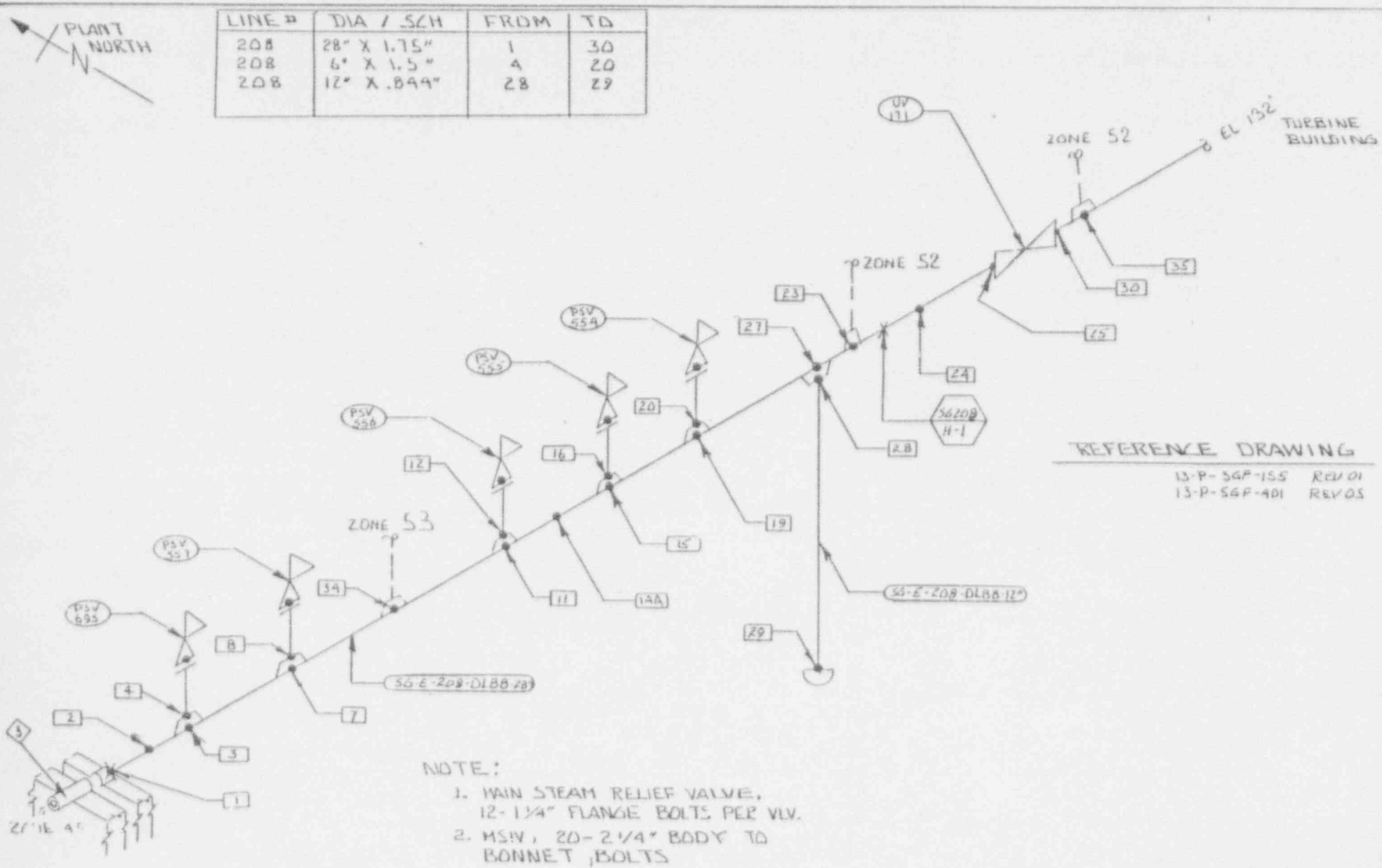
13-P-SGF-155 REV 1
13-P-SGF-401 REV 5

NOTES:

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

REV. 0	DWG UNIT 1 ZONE 48
DRAWN BY: J. HALLER	TITLE MAIN STEAM S/G 1 EAST
CHECKED BY: JGS	

LINE #	DIA / SCH	FROM	TO
208	28" X 1.75"	1	30
208	6" X 1.5"	4	20
208	12" X .849"	28	29



REFERENCE DRAWING

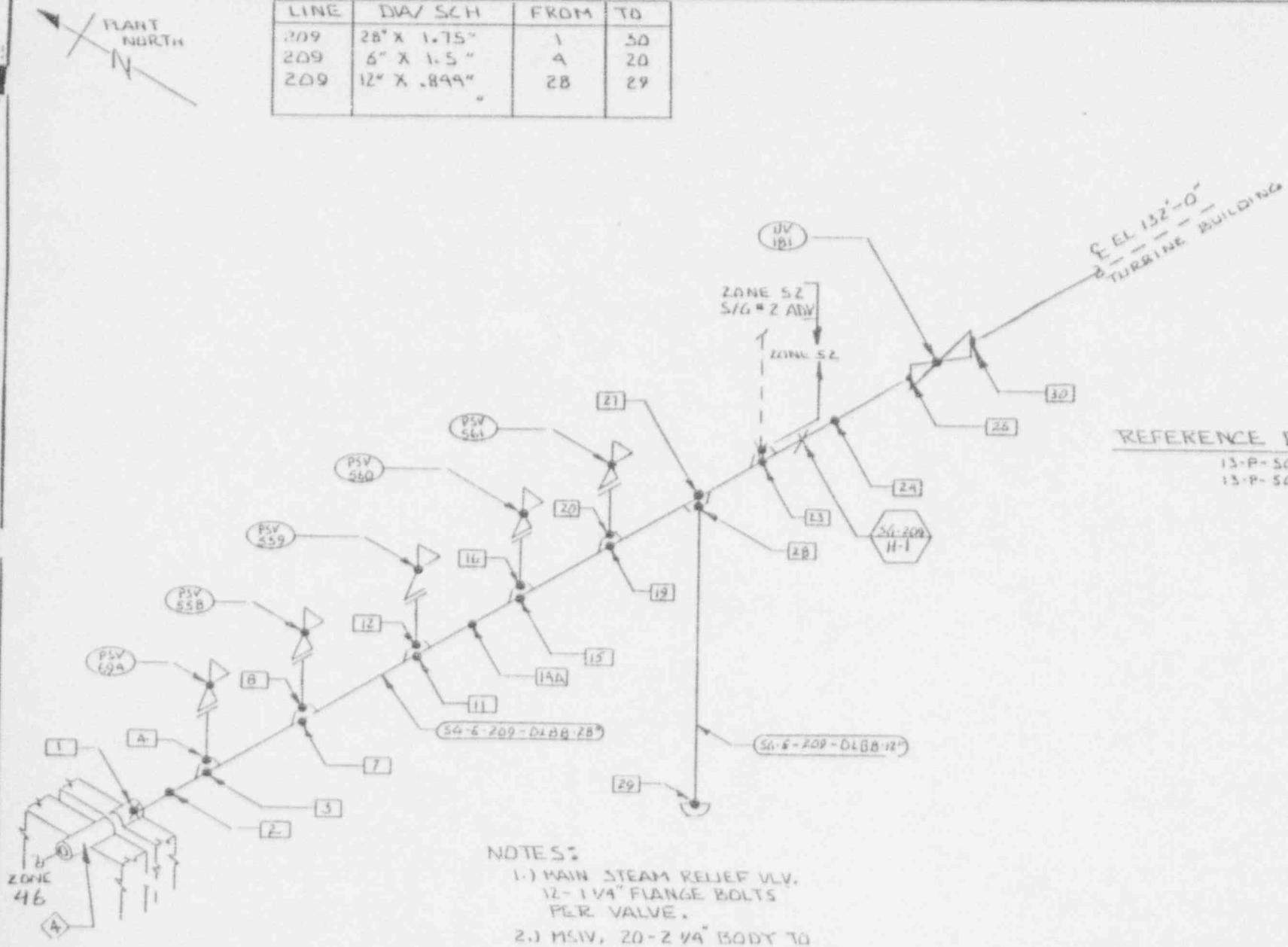
13-P-SGF-155 REV 01
13-P-SGF-401 REV 05

NOTE:

1. MAIN STEAM RELIEF VALVE, 12-1¼" FLANGE BOLTS PER VLV.
2. MSIV, 20-2¼" BODY TO BONNET BOLTS

REV. 0	DWG. UNIT 1 ZONE 49
DRAWN BY J. HOLLER	TITLE: MAIN STEAM S/G 2 (EAST)
CHECKED BY: JBS	

LINE	DIA/ SCH	FROM	TO
209	28" X 1.75"	1	30
209	6" X 1.5"	4	20
209	12" X .899"	28	29
	"		



REFERENCE DRAWING

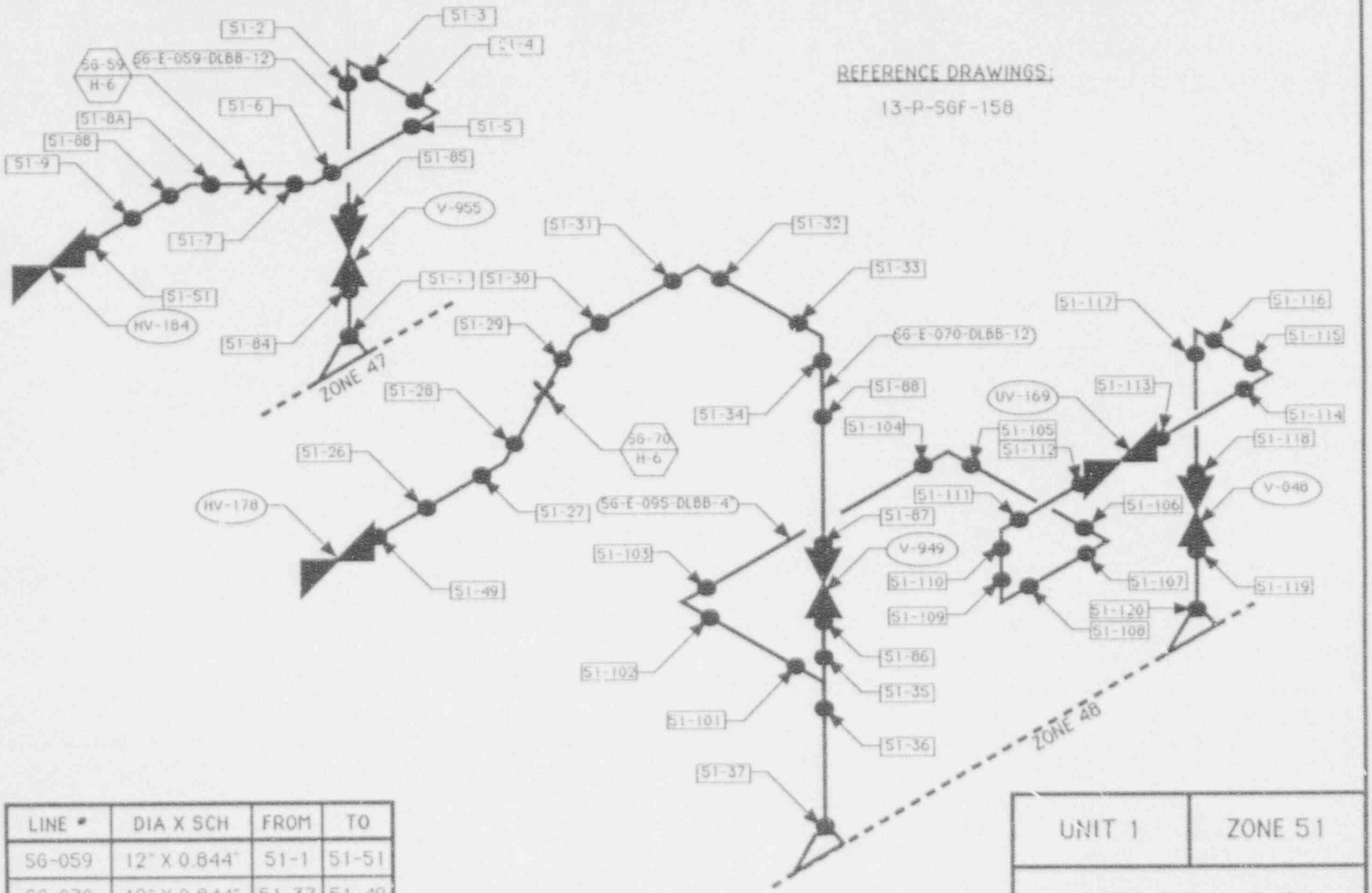
13-P-SGF-55 REV 1
13-P-SGF-01 REV 5

NOTES:

1.) MAIN STEAM RELIEF VLV. 12- 1 1/4" FLANGE BOLTS PER VALVE.

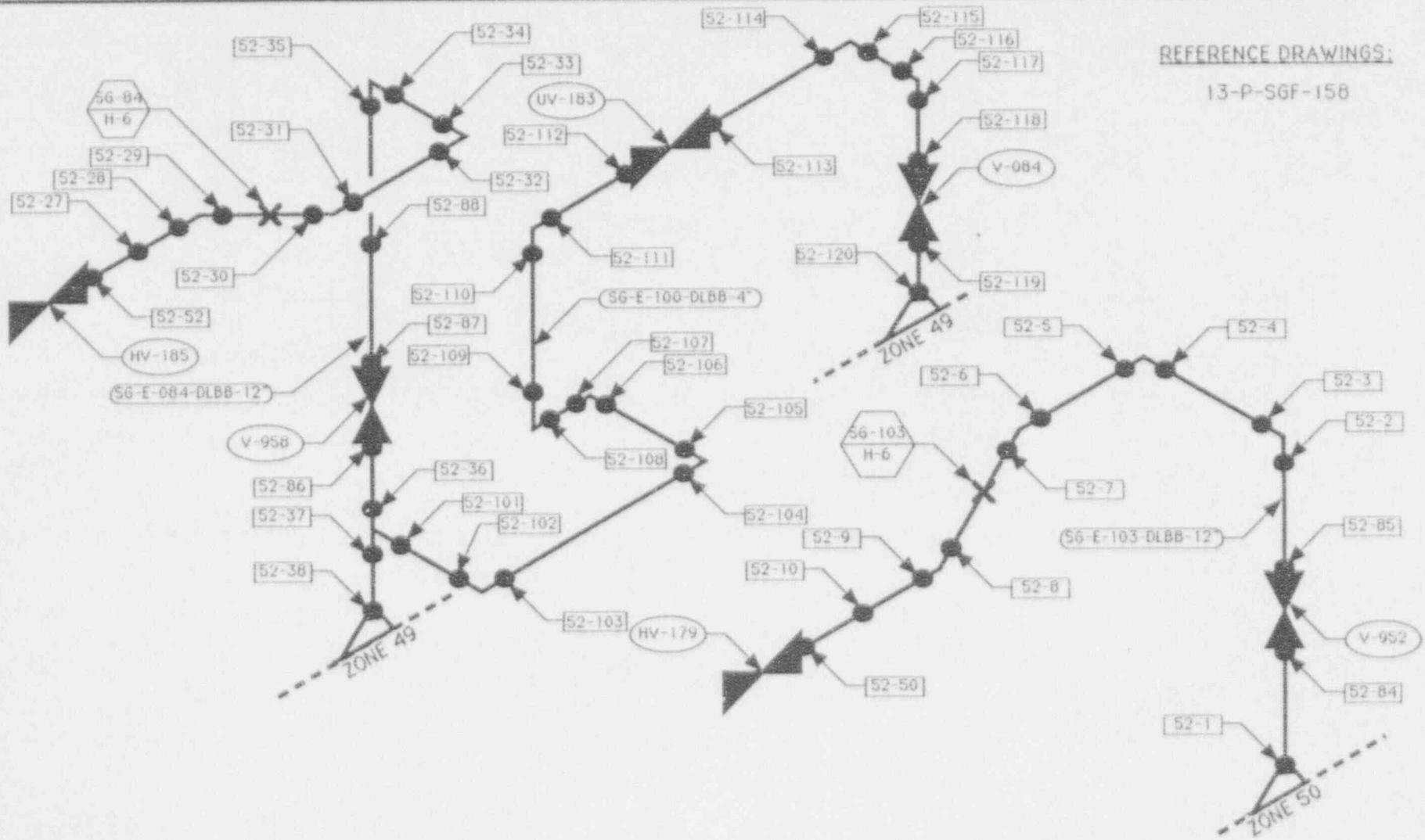
2.) MSIV, 20-2 1/4" BODY TO BONNET BOLTS

REV 0	DWG UNIT 1 ZONE 50
DRAWN BY: J. HOLLER	TITLE MAIN STEAM S/G #2 (WEST)
CHECKED BY: JBS	



LINE #	DIA X SCH	FROM	TO
SG-059	12" X 0.844"	51-1	51-51
SG-070	12" X 0.844"	51-37	51-49
SG-095	4" X 0.377"	51-101	51-120

UNIT 1	ZONE 51
ATMOSPHERIC DUMP NO 1	
DRAWN BY:	CHECKED BY: REV. 0

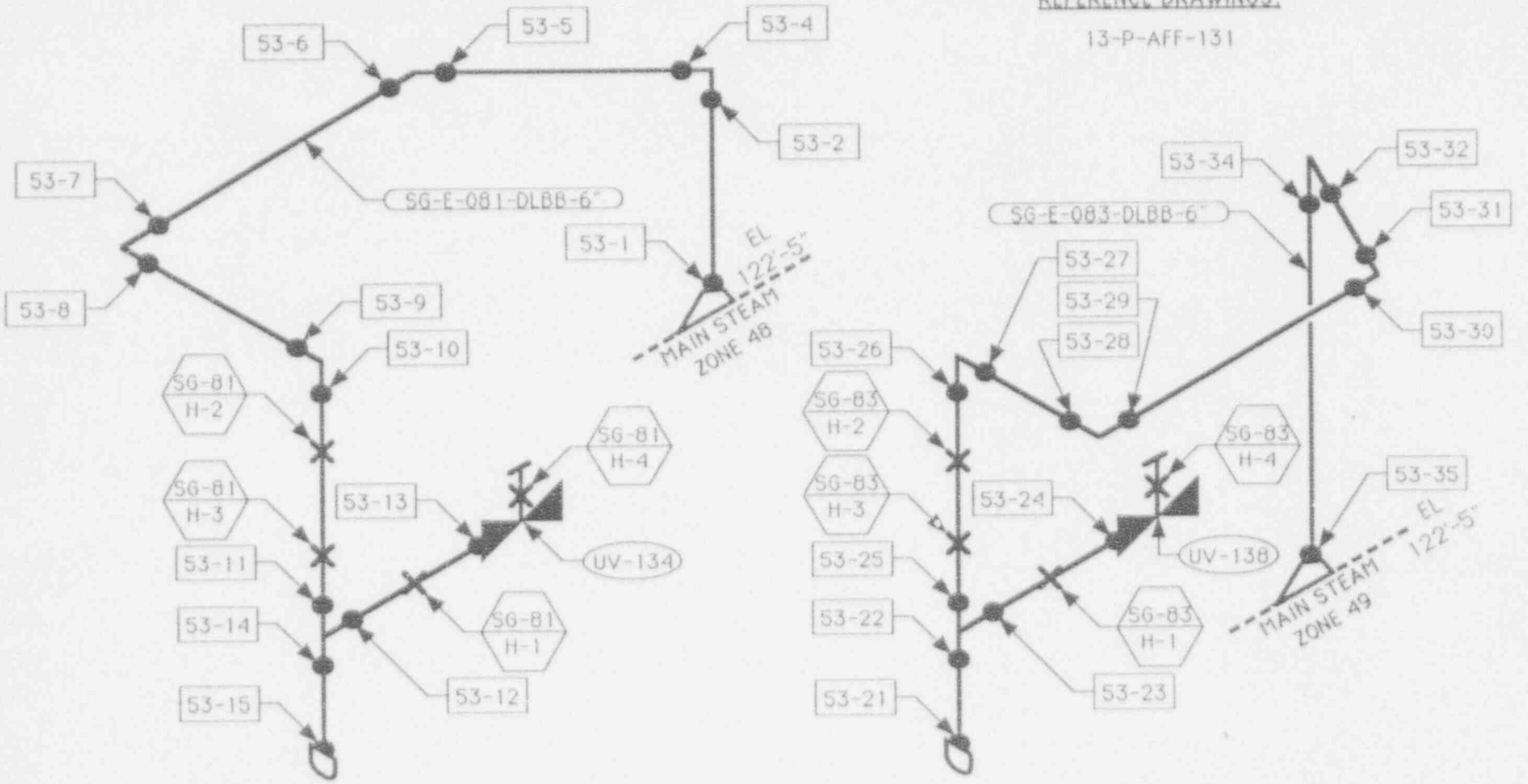


LINE #	DIA X SCH	FROM	TO
SG-103	12" X 0.844"	52-1	52-50
SG-084	12" X 0.844"	52-38	52-52
SG-100	4" X 0.377"	52-101	52-120

UNIT 1	ZONE 52
ATMOSPHERIC DUMP NO 2	
DRAWN BY: CDM	CHECKED BY: AHB
REV. 0	

REFERENCE DRAWINGS:

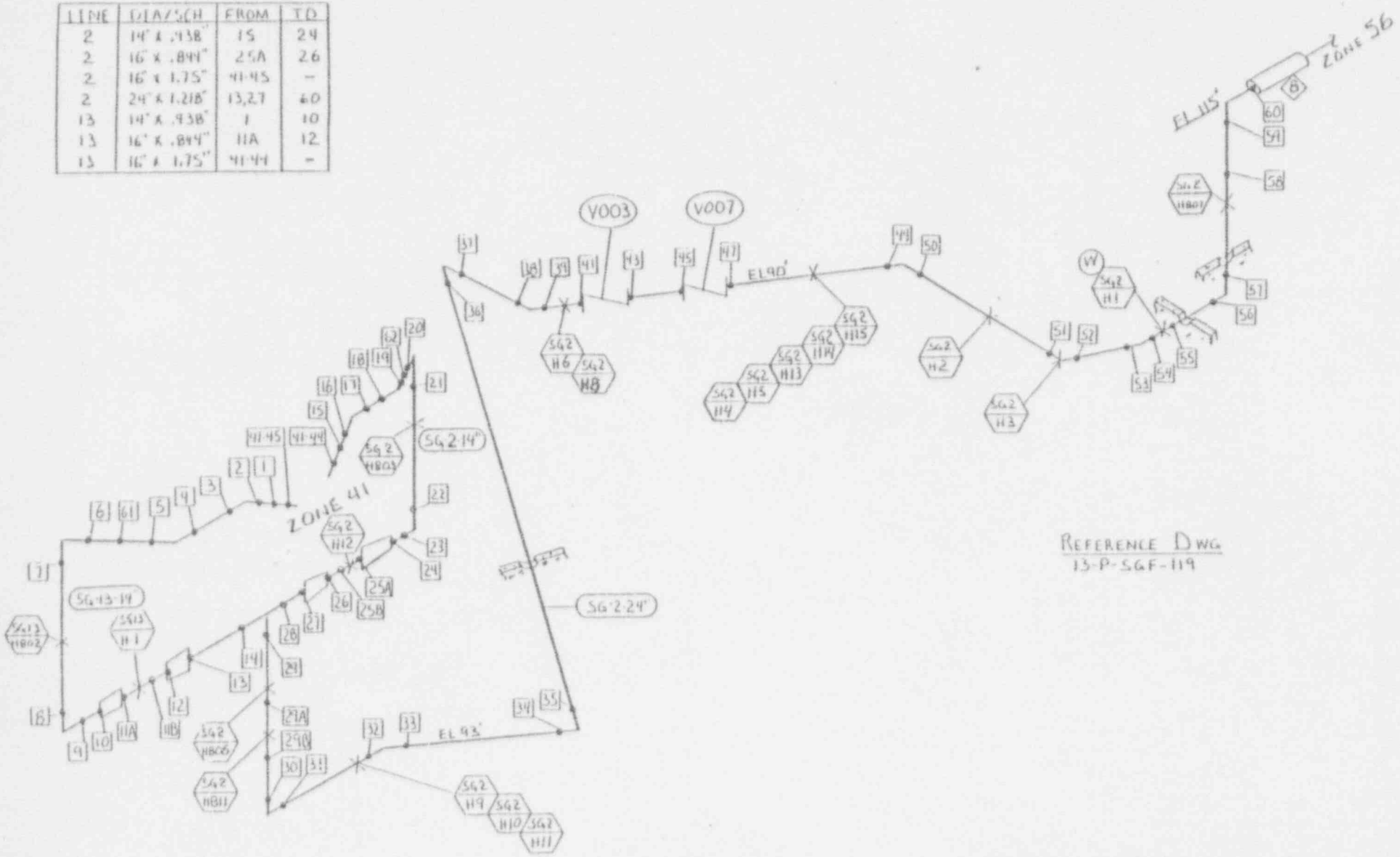
13-P-AFF-131



LINE #	DIA X SCH	FROM	TO
SG-081	6" X 0.432"	53-1	53-15
SG-083	6" X 0.432"	53-21	53-35

UNIT 1	ZONE 53
STEAM TO AUX FEEDWATER SYSTEM	
DRAWN BY: WJA	CHECKED BY: RLB
REV. 0	

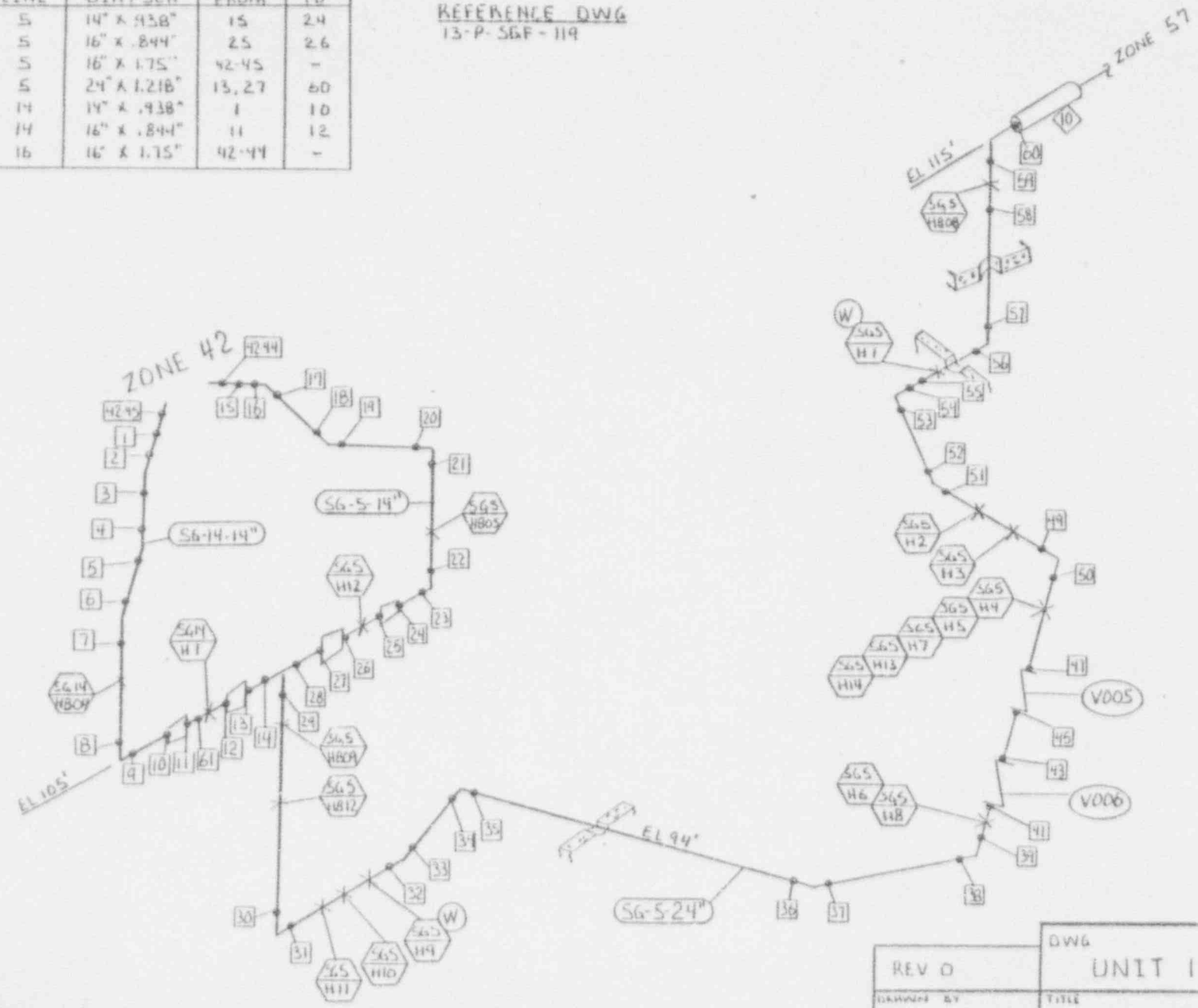
LINE	DIA/SCH	FROM	TO
2	14" x .938"	1S	24
2	16" x .844"	25A	26
2	16" x 1.75"	41-45	-
2	24" x 1.218"	13,27	60
13	14" x .938"	1	10
13	16" x .844"	11A	12
13	16" x 1.75"	41-44	-



REV. 0	DWG UNIT 1 ZONE 54
DRAWN BY: DB HANSEN	TITLE: FEEDWATER SG NO. 1
CHECKED BY: JBS	

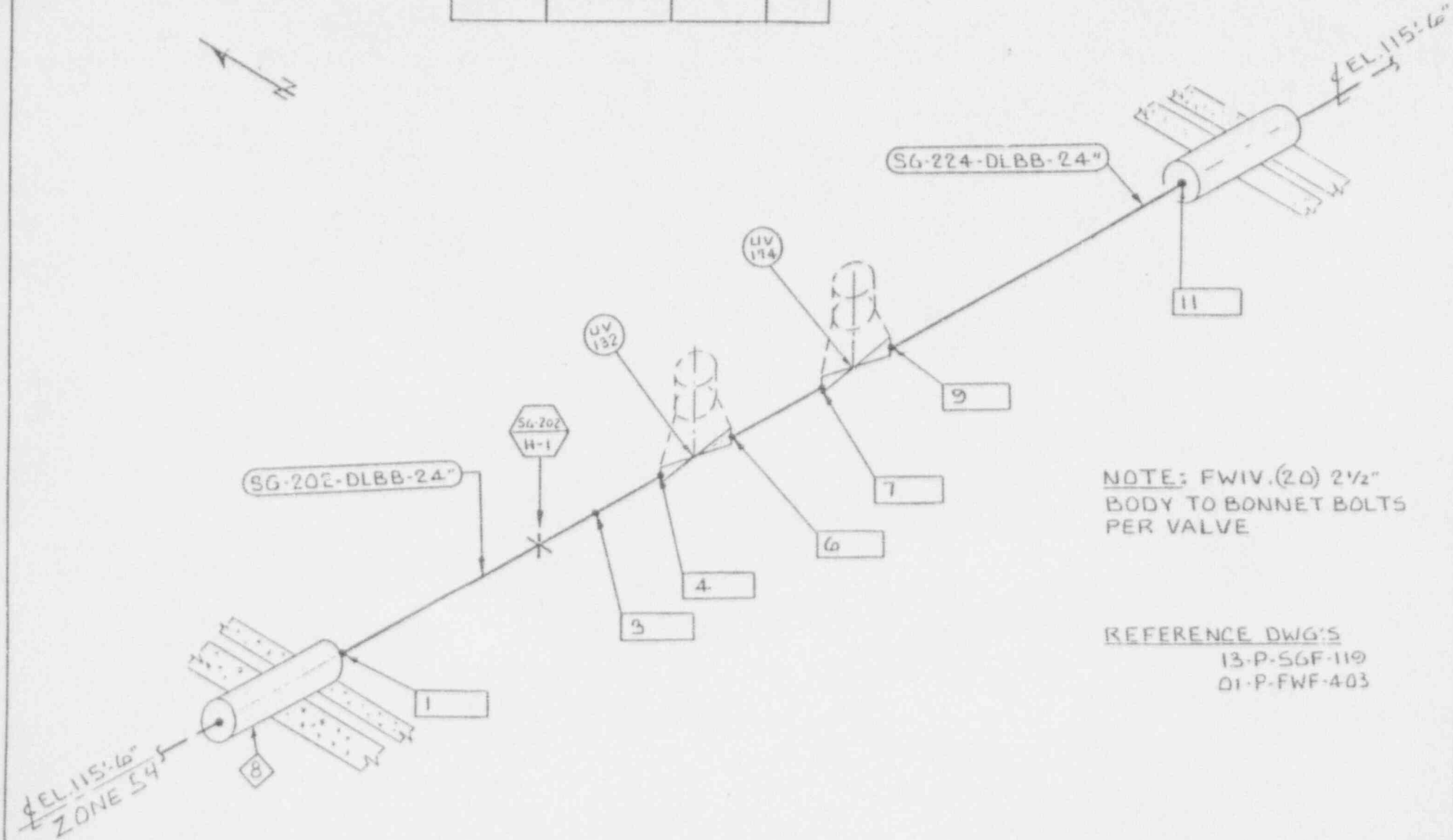
LINE	DIA / SCH	FROM	TO
5	14" x .938"	15	24
5	16" x .844"	25	26
5	16" x 1.75"	42-45	-
5	24" x 1.218"	13, 27	60
14	14" x .938"	1	10
14	16" x .844"	11	12
16	16" x 1.75"	42-44	-

REFERENCE DWG
13-P-SGF-119



REV 0	DWG UNIT 1 ZONE 55
DRAWN BY D.B. HANSEN	TITLE FEEDWATER SG NO 2
CHECKED BY JBS	

LINE #	DIA/SCH	FROM	TO
202	24"x1.531"	1	4
201	24"x1.812"	6	7
224	24"x1.812"	9	11

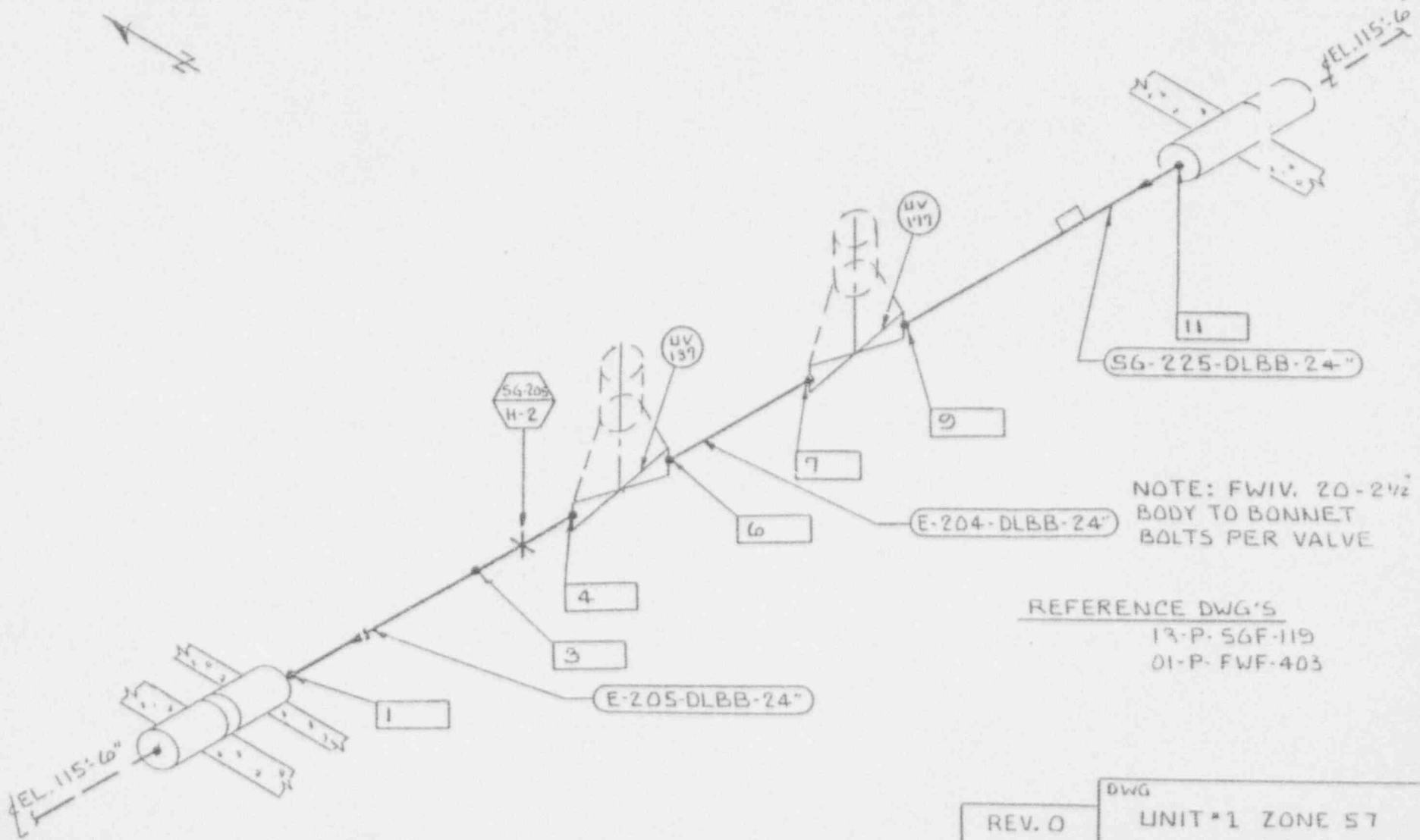


NOTE: FWIV.(20) 2½" BODY TO BONNET BOLTS PER VALVE

REFERENCE DWG'S
13-P-SGF-119
01-P-FWF-403

REV. 0	DWG UNIT #1 ZONE 56
DRAWN BY R. CURCIO	TITLE: FEEDWATER STEAM GENERATOR # 1
CHECKED BY JBS	

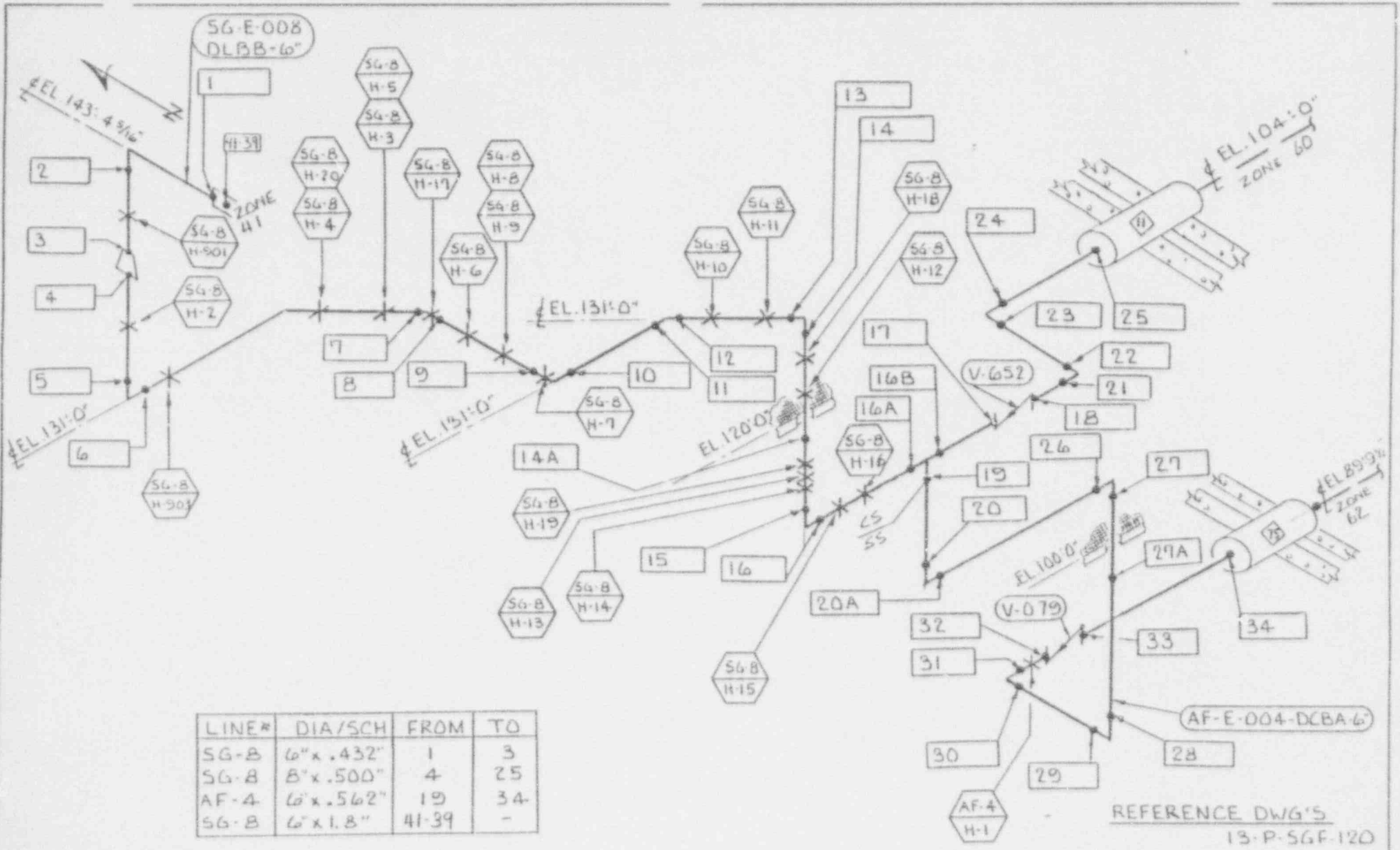
LINE #	DIA/SCH	FROM	TO
205	24" x 1.531"	1	4
204	24" x 1.812"	6	7
225	24" x 1.812"	9	11



NOTE: FWIV. 20-2½" BODY TO BONNET BOLTS PER VALVE

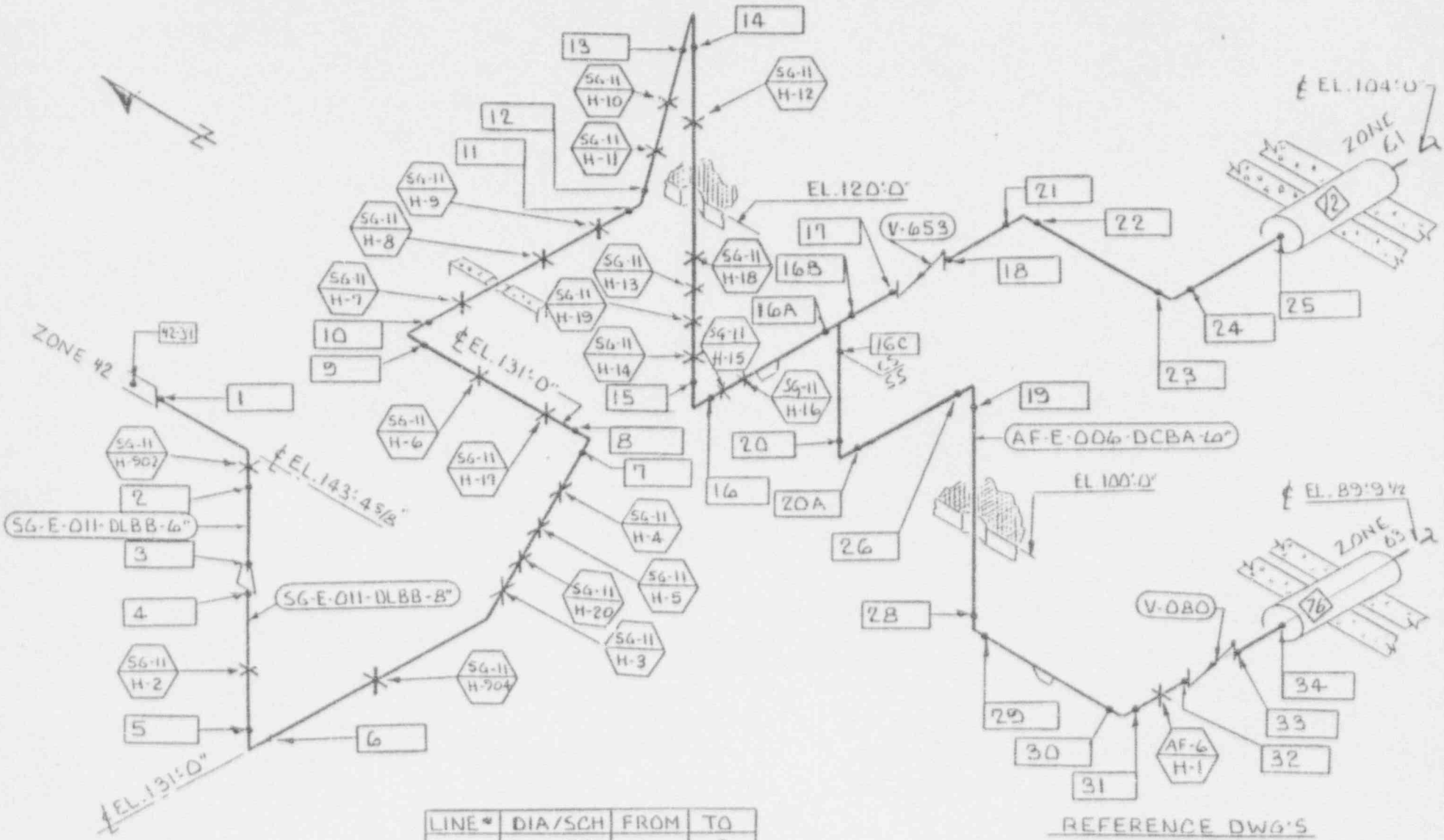
REFERENCE DWG'S
13-P-SGF-119
01-P-FWF-403

REV. 0	DWG UNIT #1 ZONE 57
DRAWN BY R. CURCIO	TITLE FEEDWATER STEAM GENERATOR #2
CHECKED BY JBS	



LINE#	DIA/SCH	FROM	TO
SG-B	6"x.432"	1	3
SG-B	8"x.500"	4	25
AF-4	6"x.562"	19	34
SG-B	6"x1.8"	41-39	-

REV. 0	DWG: UNIT#1 ZONE 58
DRAWN BY R. CURCIO	TITLE: AUX? DOWNCOMER FEEDWATER, STEAM GEN.# 1
CHECKED BY JBS	

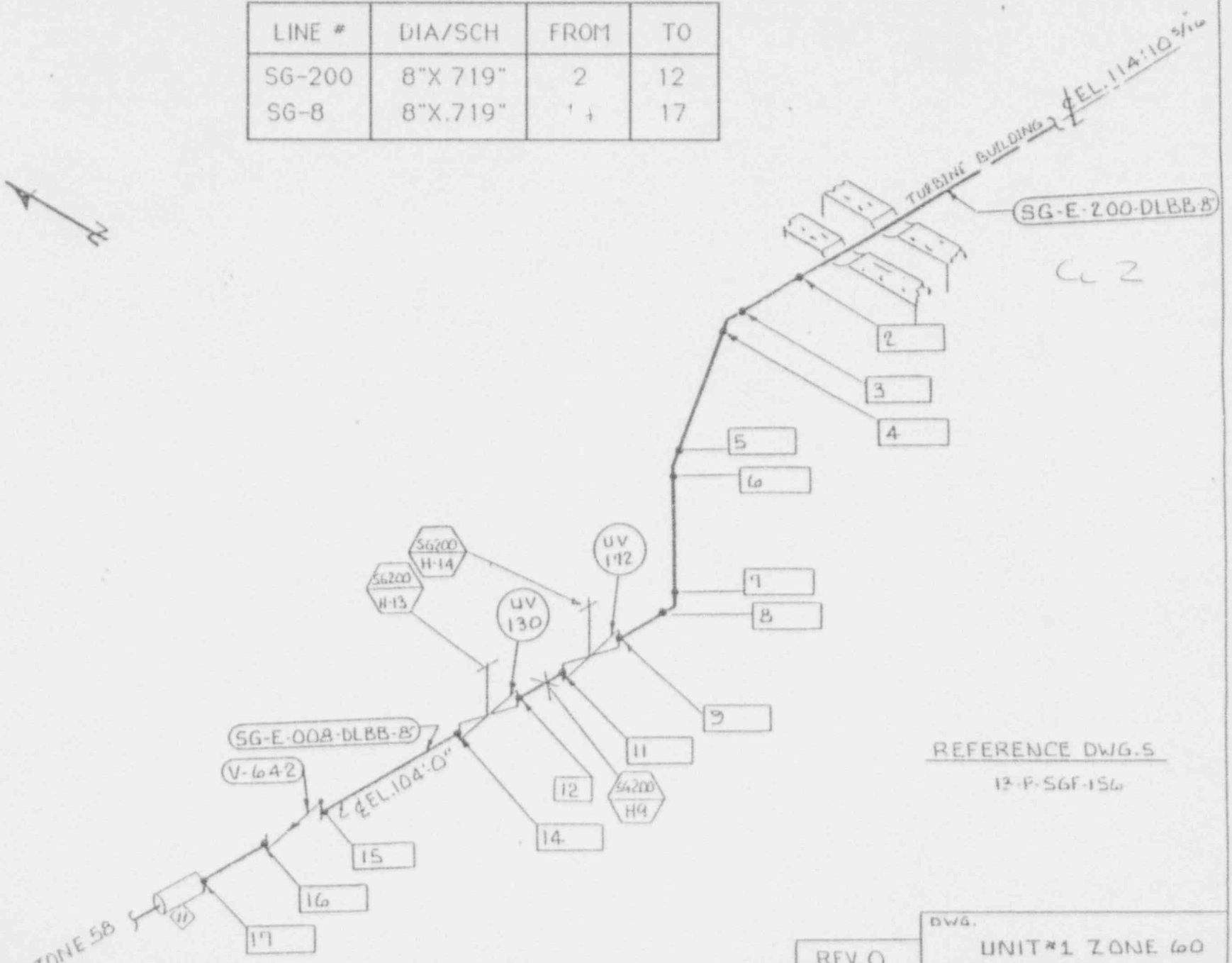


LINE #	DIA/SCH	FROM	TO
SG-11	6" x .432"	1	3
SG-11	8" x .500"	4	25
AF-6	6" x .562"	16	34
SG-11	6" x 1.8"	42-34	–

REFERENCE DWG'S
13-P-SGF-120 REV. 2

REV. 0	DWG UNIT # 1 ZONE 59
DRAWN BY R. CIRCIO	TITLE: AUX & DOWNCOMER FEEDWATER, STEAM GEN # 2
CHECKED BY JBS	

LINE #	DIA/SCH	FROM	TO
SG-200	8"X 719"	2	12
SG-8	8"X.719"	1	17

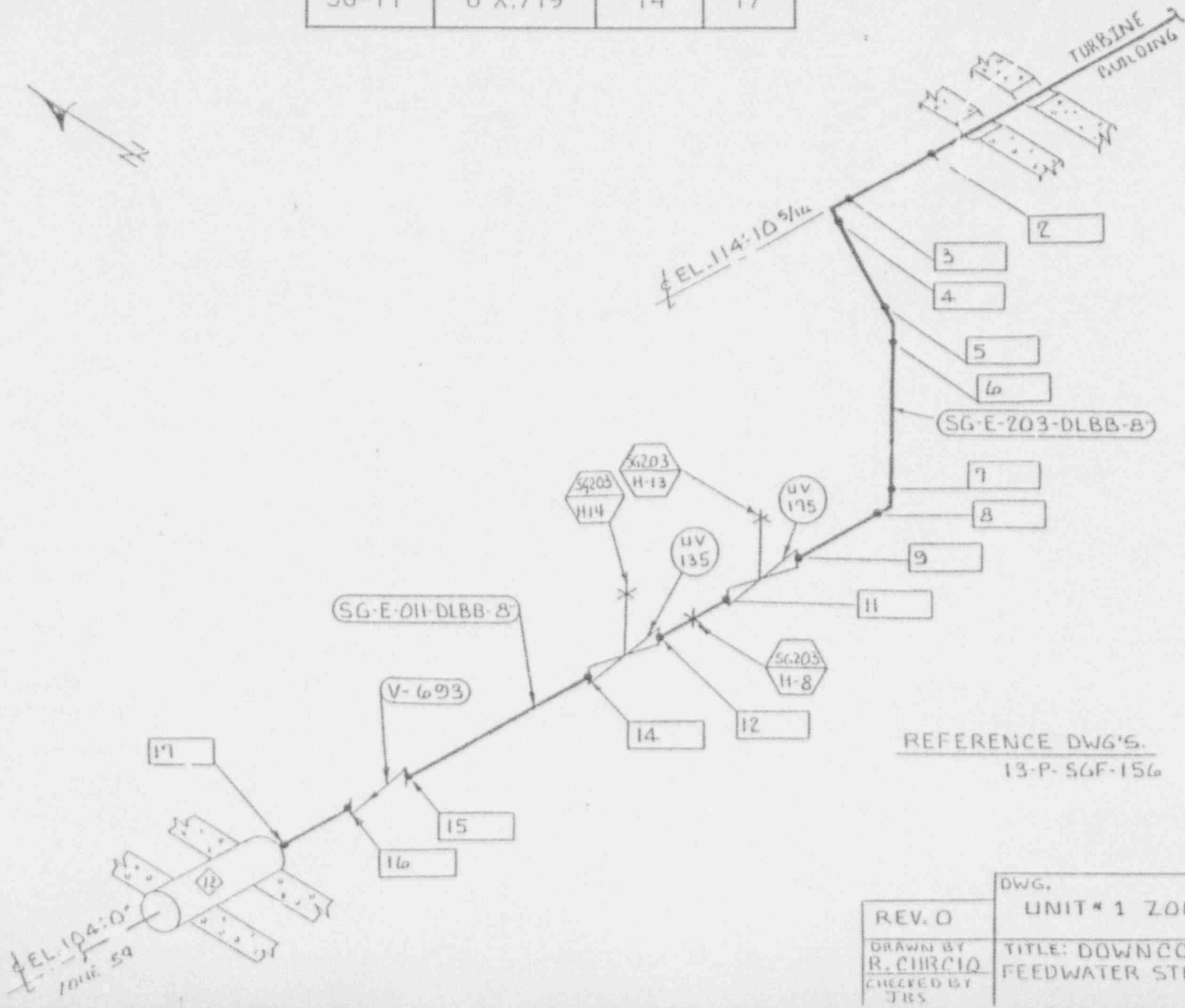


REFERENCE DWG.S

13-P-SGF-156

REV. 0	DWG. UNIT #1 ZONE 60
DRAWN BY R. CURCIO	TITLE: DOWNCOMER FEEDWATER STM GEN #1
CHECKED BY JBS	

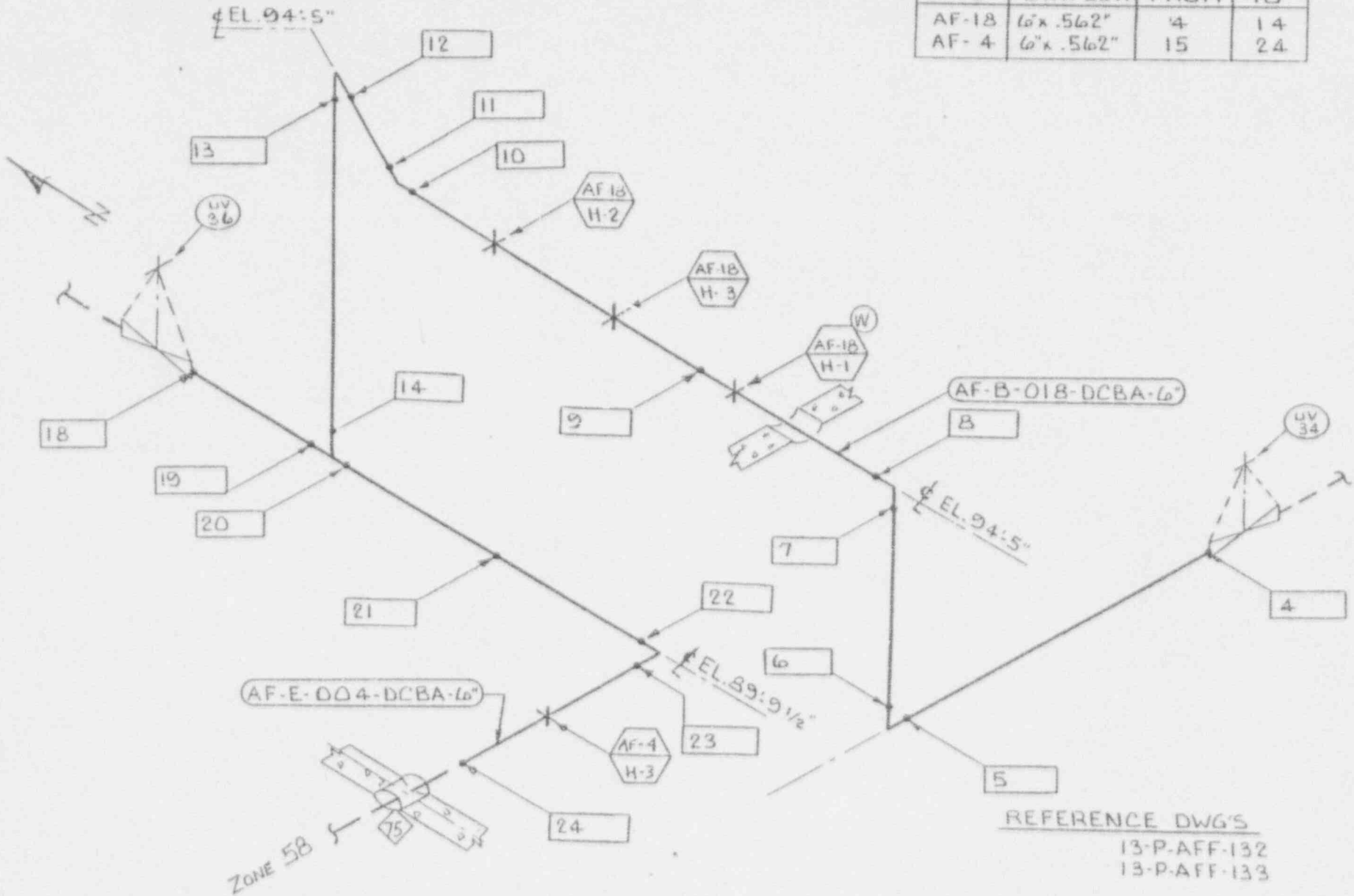
LINE #	DIA/SCH	FROM	TO
SG-203	8"X.719"	2	12
SG-11	8"X.719"	14	17



REFERENCE DWG'S.
13-P-SGF-156

REV. 0	DWG. UNIT # 1 ZONE 61
DRAWN BY R. CIRCIO	TITLE: DOWNCOMER FEEDWATER STM. GEN # 2
CHECKED BY JBS	

LINE #	DIA/SCH	FROM	TO
AF-18	6"x .562"	4	14
AF- 4	6"x .562"	15	24



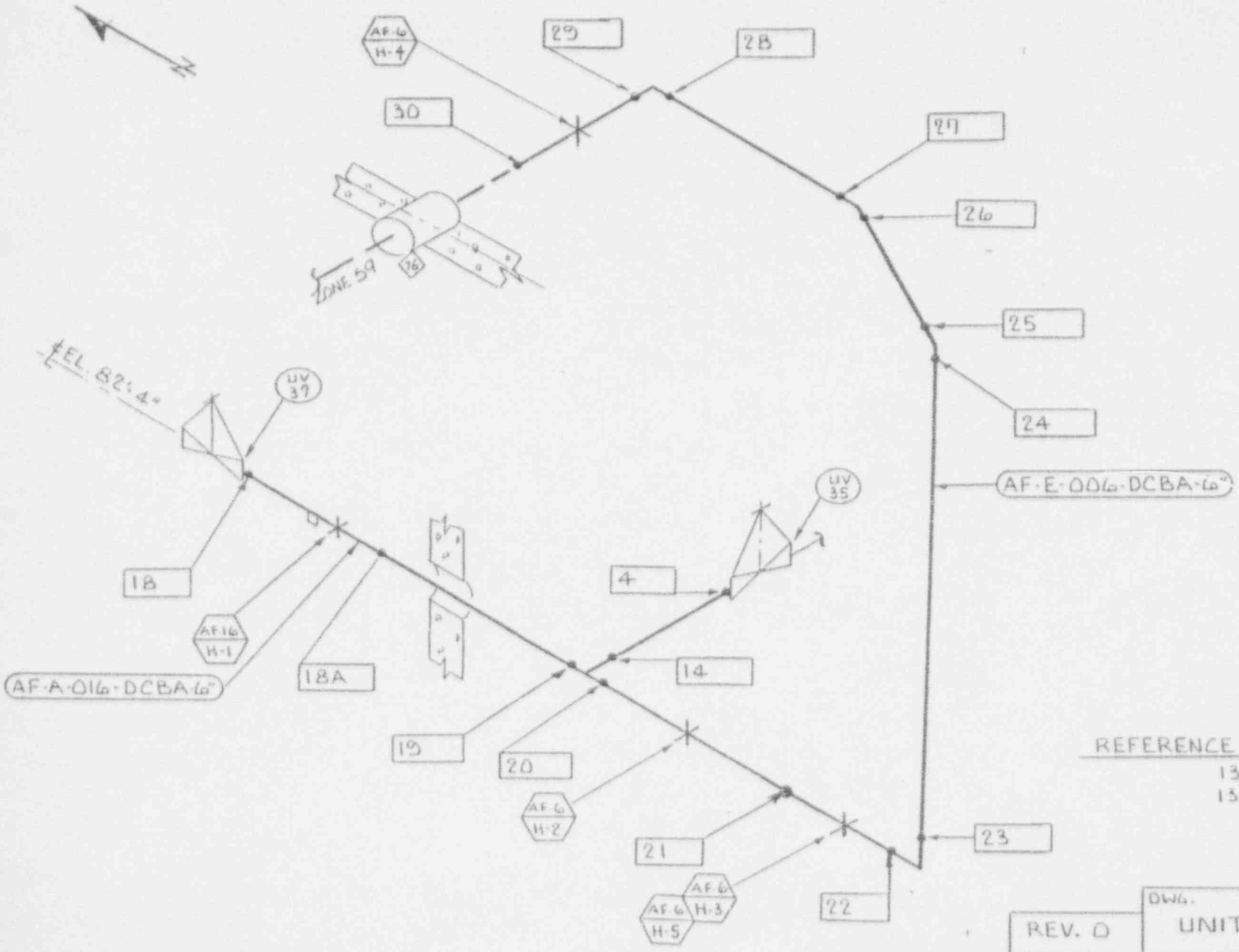
REFERENCE DWG'S

13-P-AFF-132

13-P-AFF-133

REV. 0	DWG. UNIT # 1 ZONE 62
DRAWN BY R. CURCIO	TITLE AUXILIARY FEEDWATER STEAM GENERATOR # 1
CHECKED BY JBS	

LINE #	DIA / SCH	FROM	TO
AF-16	6"x.562"	18	19
AF-6	6"x.562"	4	31

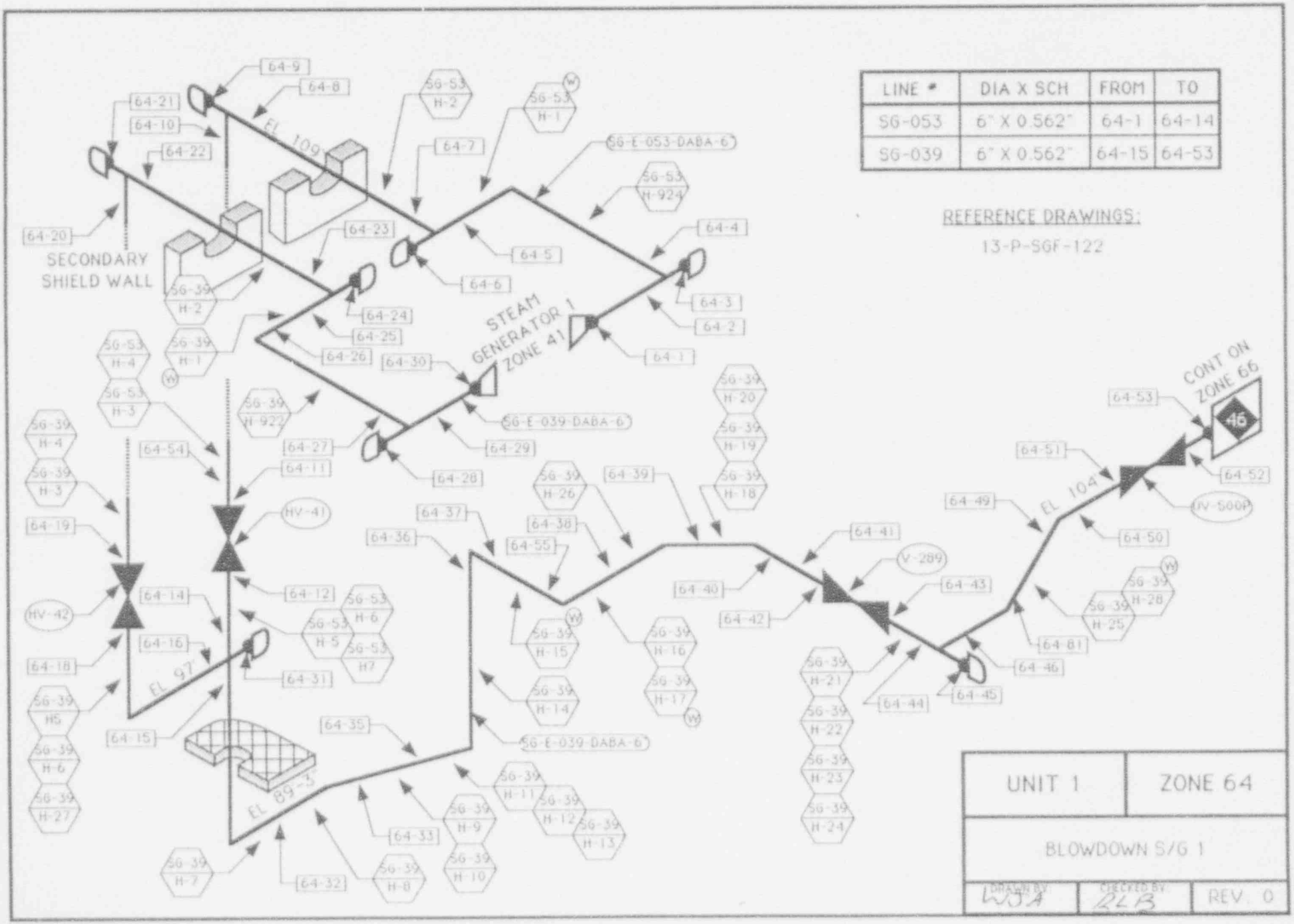


REFERENCE DWG'S

13-P-AFF-132

13-P-AFF-133

REV. 0	DWG. UNIT # 1 ZONE 603
DRAWN BY R. CURCIO	TITLE: AUXILIARY FEEDWATER STEAM GENERATOR # 2
CHECKED BY JGS	



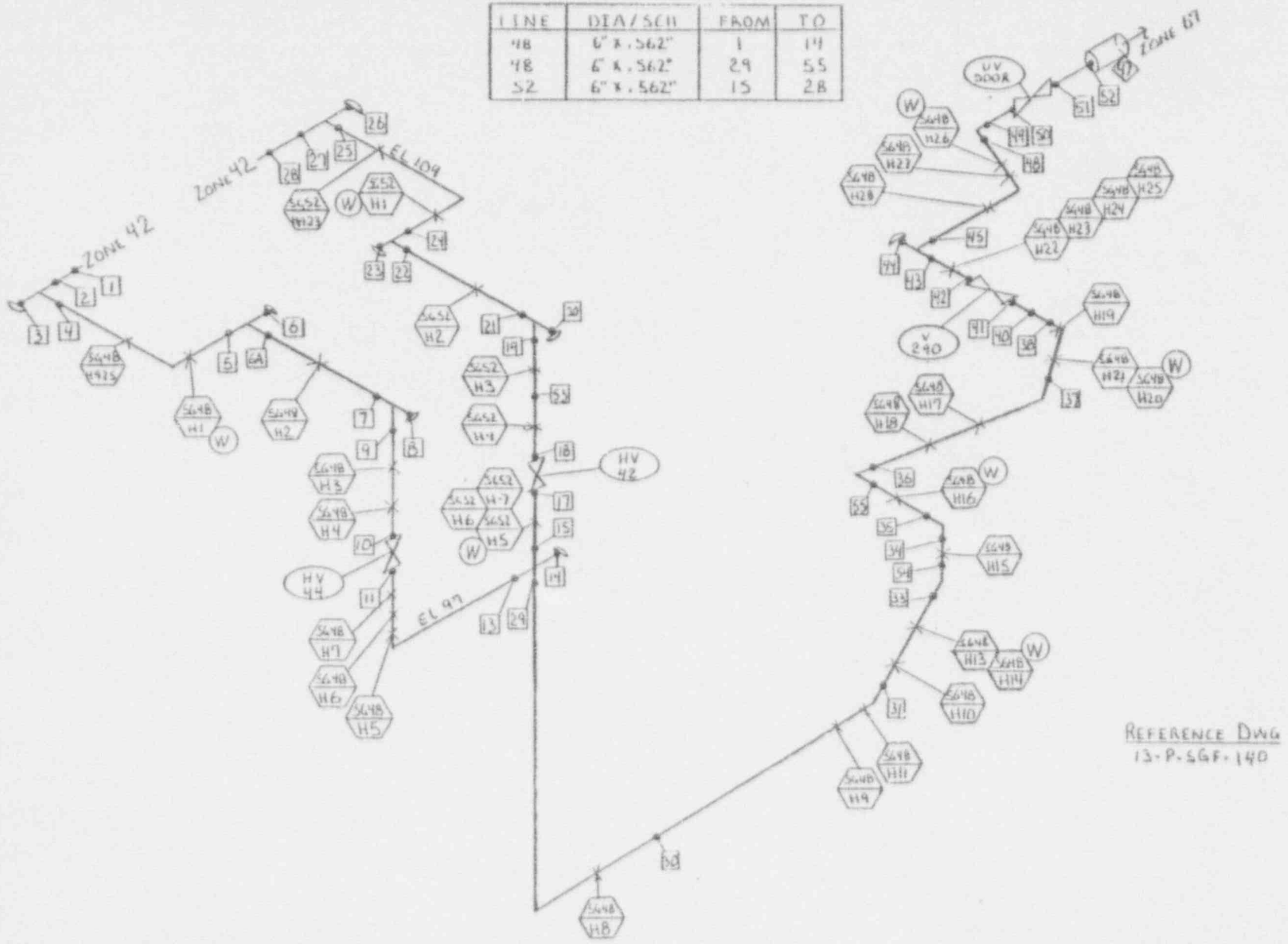
LINE #	DIA X SCH	FROM	TO
SG-053	6" X 0.562"	64-1	64-14
SG-039	6" X 0.562"	64-15	64-53

REFERENCE DRAWINGS:

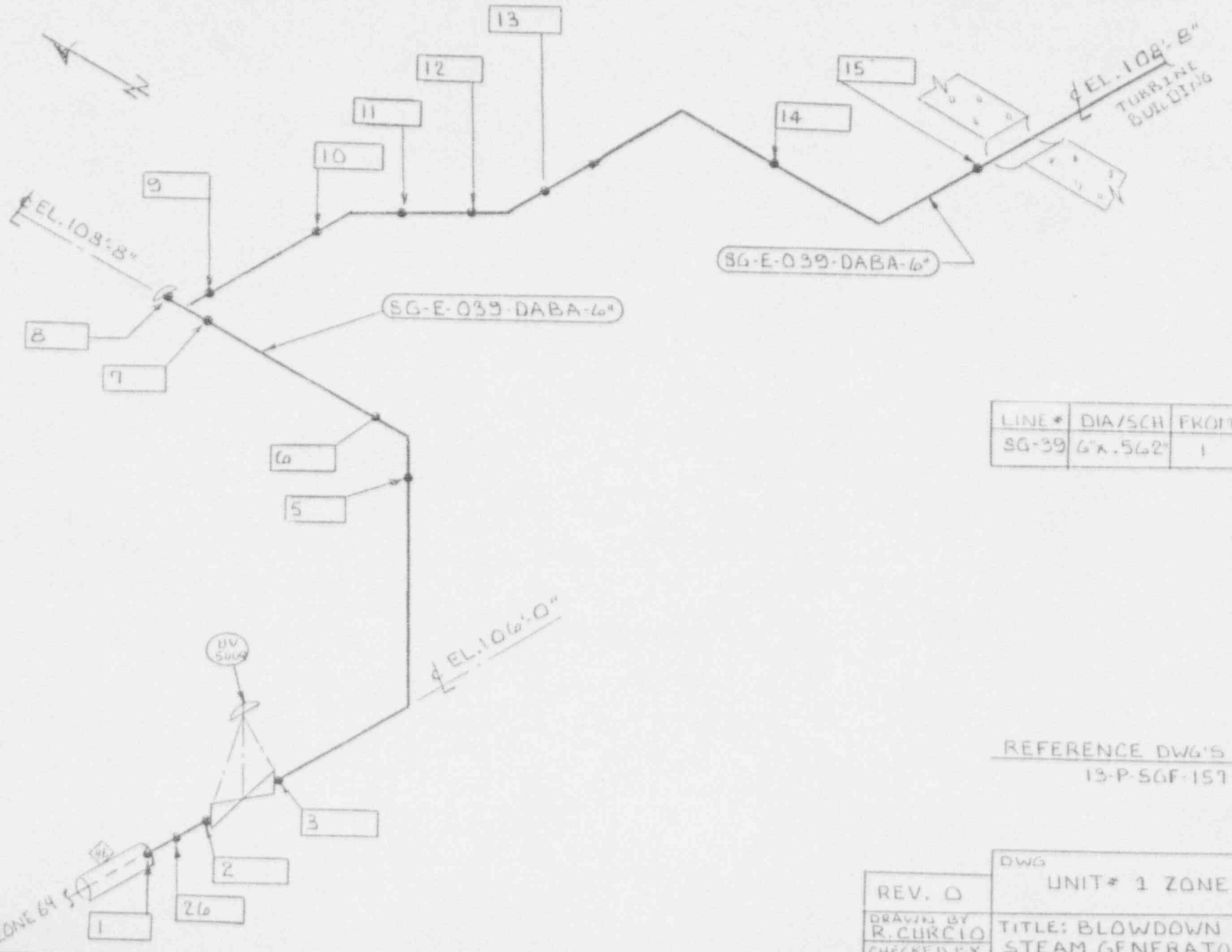
13-P-SGF-122

UNIT 1	ZONE 64
BLOWDOWN S/G 1	
DRAWN BY: WJA	CHECKED BY: ALB / REV. 0

LINE	DIA/SCH	FROM	TO
48	6" x .562"	1	14
48	6" x .562"	29	55
52	6" x .562"	15	28



REV 0	DWG UNIT 1 ZONE 65
DRAWN BY D. R. HANSEN	TITLE BLOWDOWN S/G 2
CHECKED BY JBS	

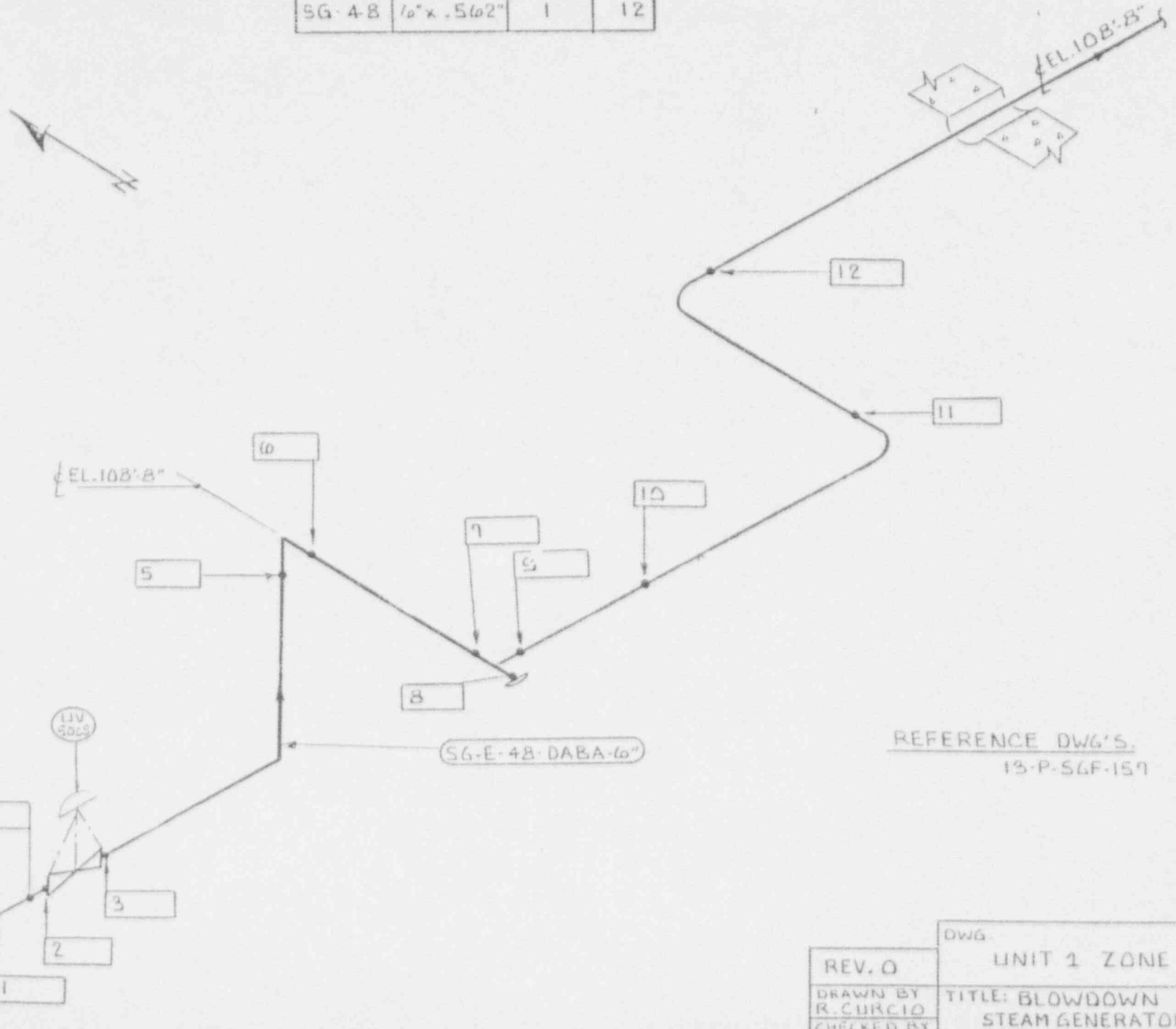


LINE #	DIA/SCH	FROM	TO
SG-39	6"x.562"	1	15

REFERENCE DWG'S
13-P-SGF-157

REV. 0	DWG UNIT # 1 ZONE 66
DRAWN BY R. CURCIO	TITLE: BLOWDOWN STEAM GENERATOR #1
CHECKED BY JBS	

LINE #	DIA/SCH	FROM	TO
SG-48	16" x .562"	1	12



REFERENCE DWG'S.
13-P-SGF-159

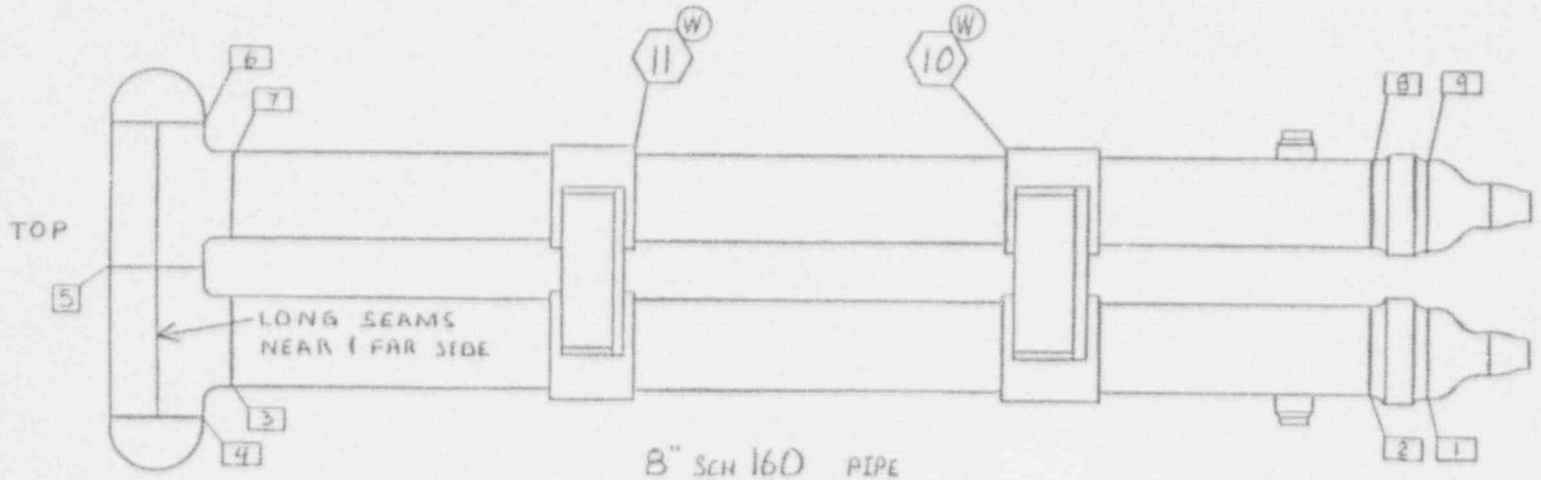
REV. 0	DWG. UNIT 1 ZONE 69
DRAWN BY R. CURCIO	TITLE: BLOWDOWN STEAM GENERATOR #2
CHECKED BY JBS	

NOTES:

TAG NO. IMCHEE01
SERIAL NO. 79119 AMETEK
N.B. NO. 437

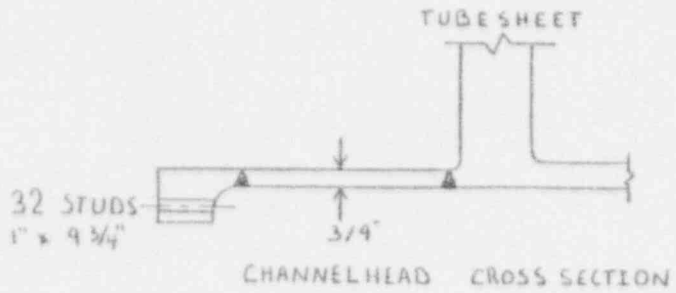
REFERENCE DWGS:

N001-7.03-1
N001-7.03-48 THRU 50



8" SCH 160 PIPE
AND FITTINGS

REV 0	DWG UNIT #1 ZONE 68
DRAWN BY D B HANSEN	TITLE: REGENERATIVE HEAT EXCHANGER
CHECKED BY JBS	



CHANNELHEAD CROSS SECTION

NOTES:

TAG NO. 1MCHNE02

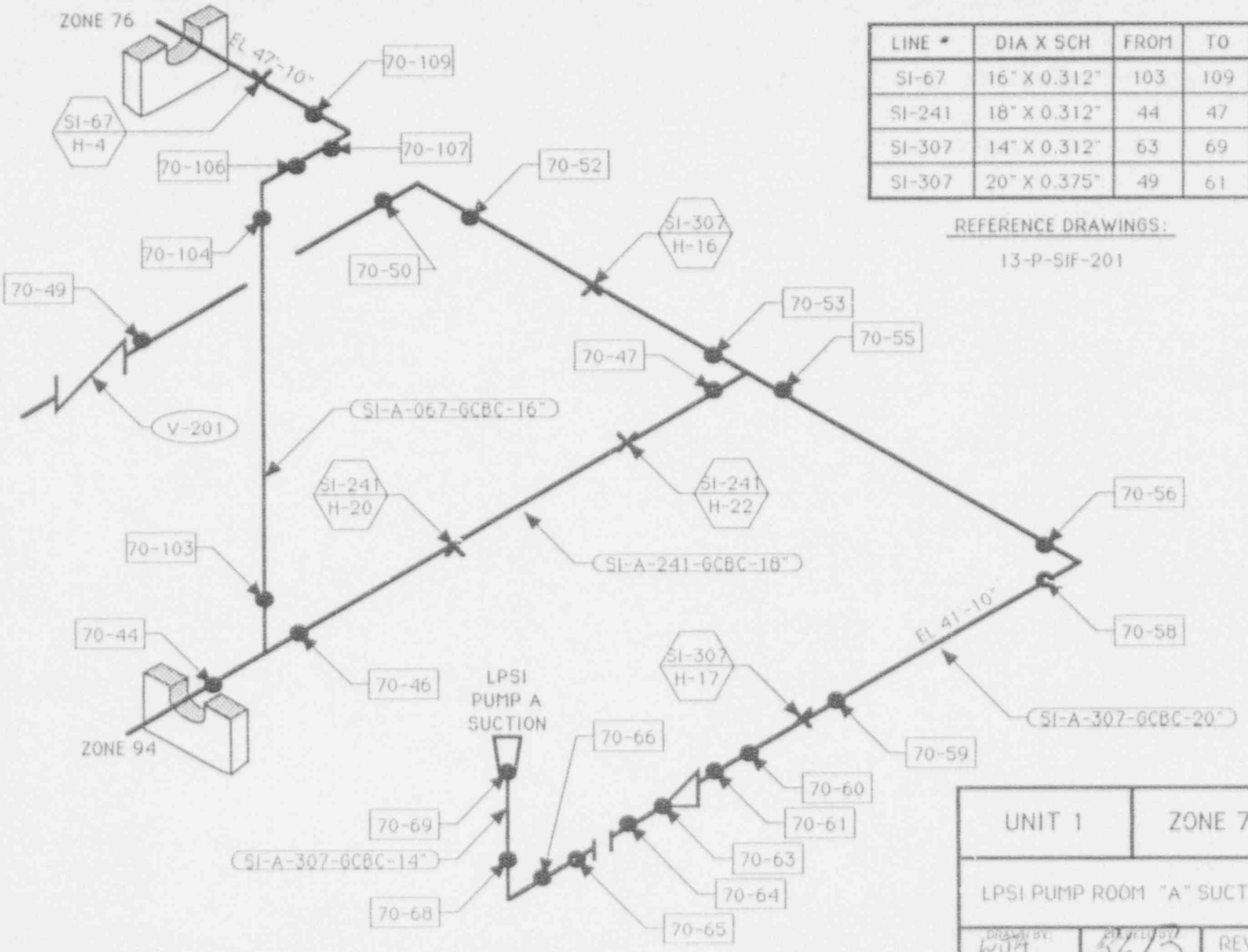
SERIAL NO. N2370 (RICHMOND ENGR)

N.B. NO. 76129

REFERENCE DRAWINGS:

N001-7.03-26
N001-7.03-27
N001-7.03-28
N001-7.03-29

REV. 0	DWG. UNIT #1 ZONE 69
DRAWN BY D B HANSEN	TITLE: LETDOWN HEAT EXCHANGER
CHECKED BY JBS	

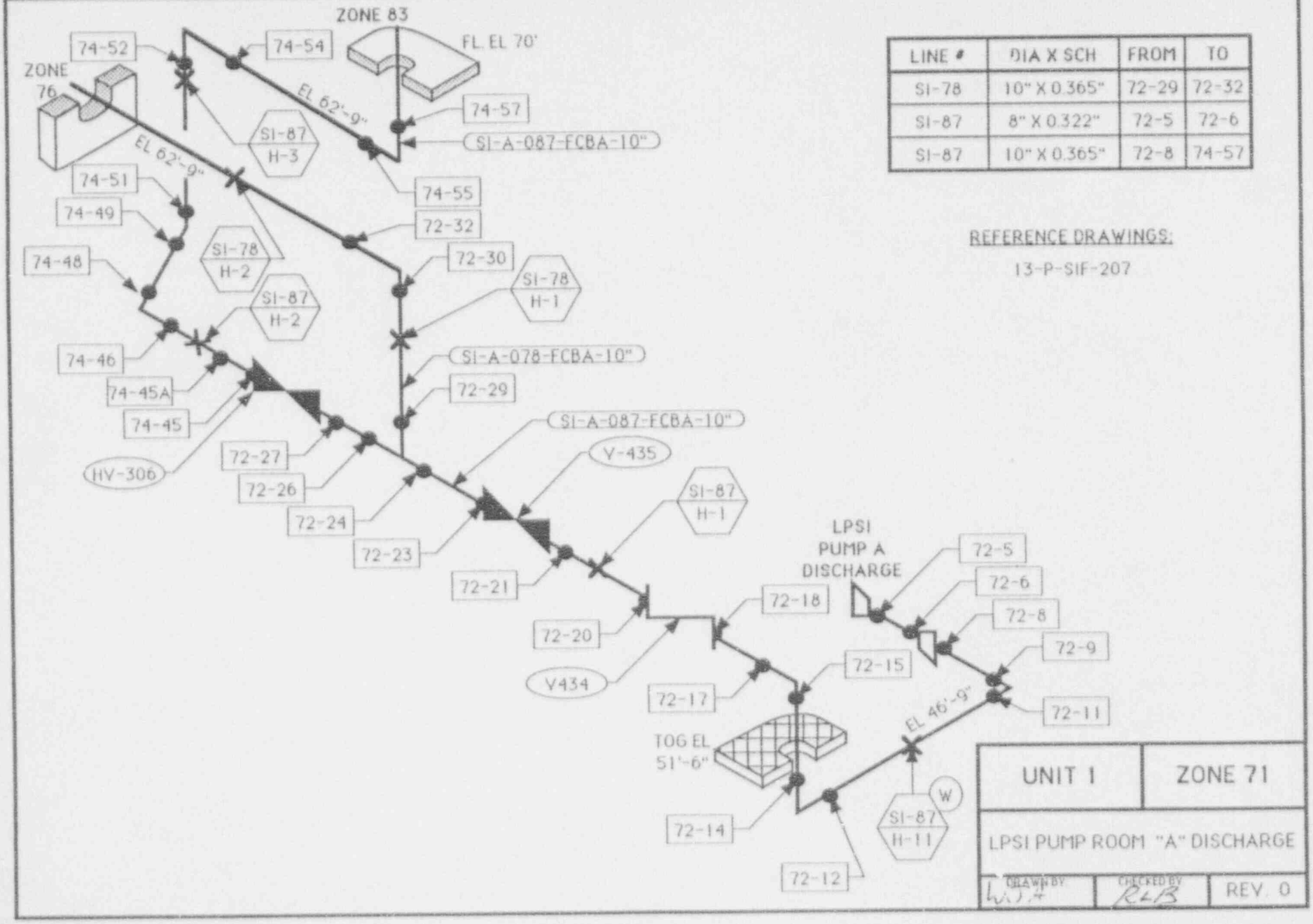


LINE #	DIA X SCH	FROM	TO
SI-67	16" X 0.312"	103	109
SI-241	18" X 0.312"	44	47
SI-307	14" X 0.312"	63	69
SI-307	20" X 0.375"	49	61

REFERENCE DRAWINGS:

13-P-SIF-201

UNIT 1	ZONE 70
LPSI PUMP ROOM "A" SUCTION	
DRAWN BY: WJM	APPROVED BY: RZ/3	REV. 0

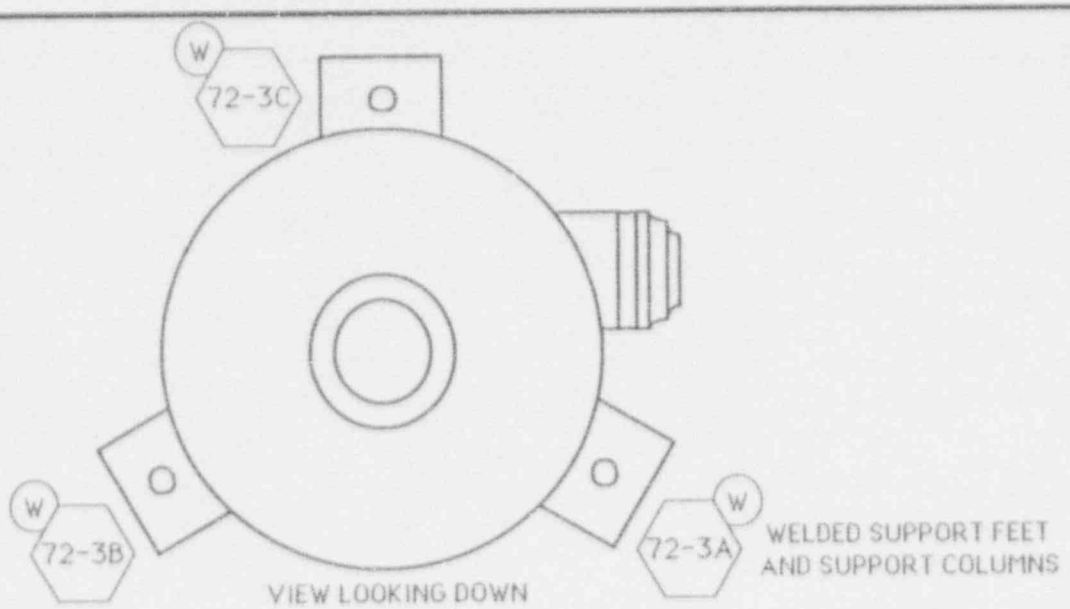


LINE #	DIA X SCH	FROM	TO
SI-78	10" X 0.365"	72-29	72-32
SI-87	8" X 0.322"	72-5	72-6
SI-87	10" X 0.365"	72-8	74-57

REFERENCE DRAWINGS:

13-P-SIF-207

UNIT 1	ZONE 71
LPSI PUMP ROOM "A" DISCHARGE	
DRAWN BY: L.W.J.	CHECKED BY: R.L.B.	REV. 0



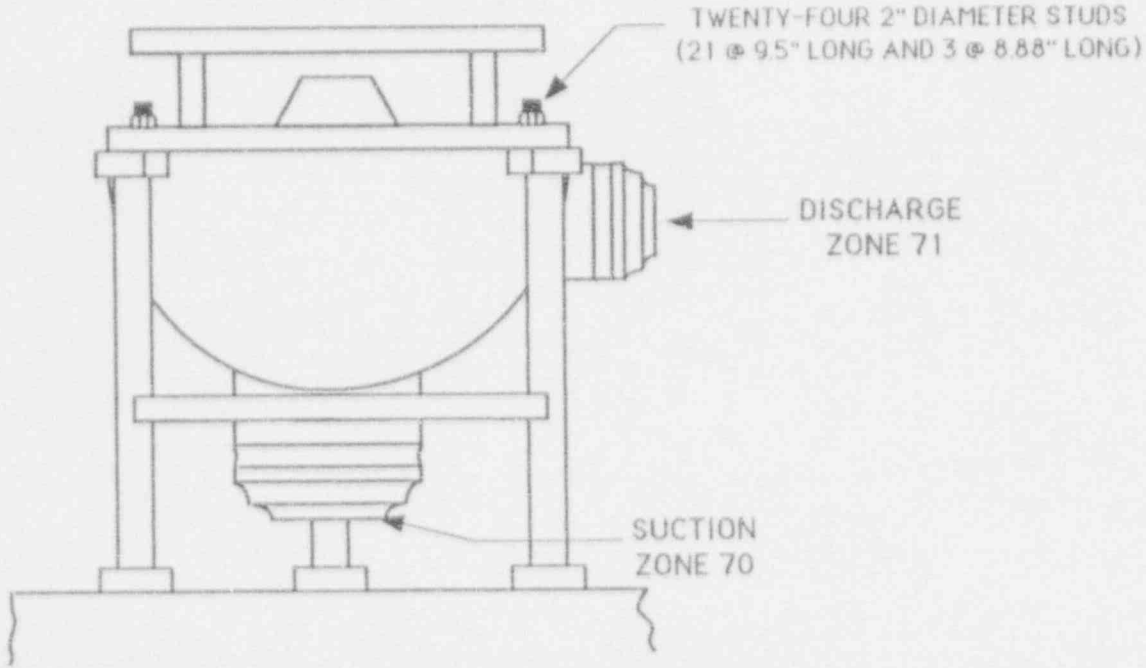
WELDED SUPPORT FEET
AND SUPPORT COLUMNS

NOTES:

1) TAG NUMBER: 1MSIAP01

2) SERIAL NUMBER: 0876-36 INGERSOL RAND

3) NATIONAL BOARD NUMBER: 523



REFERENCE DRAWINGS:

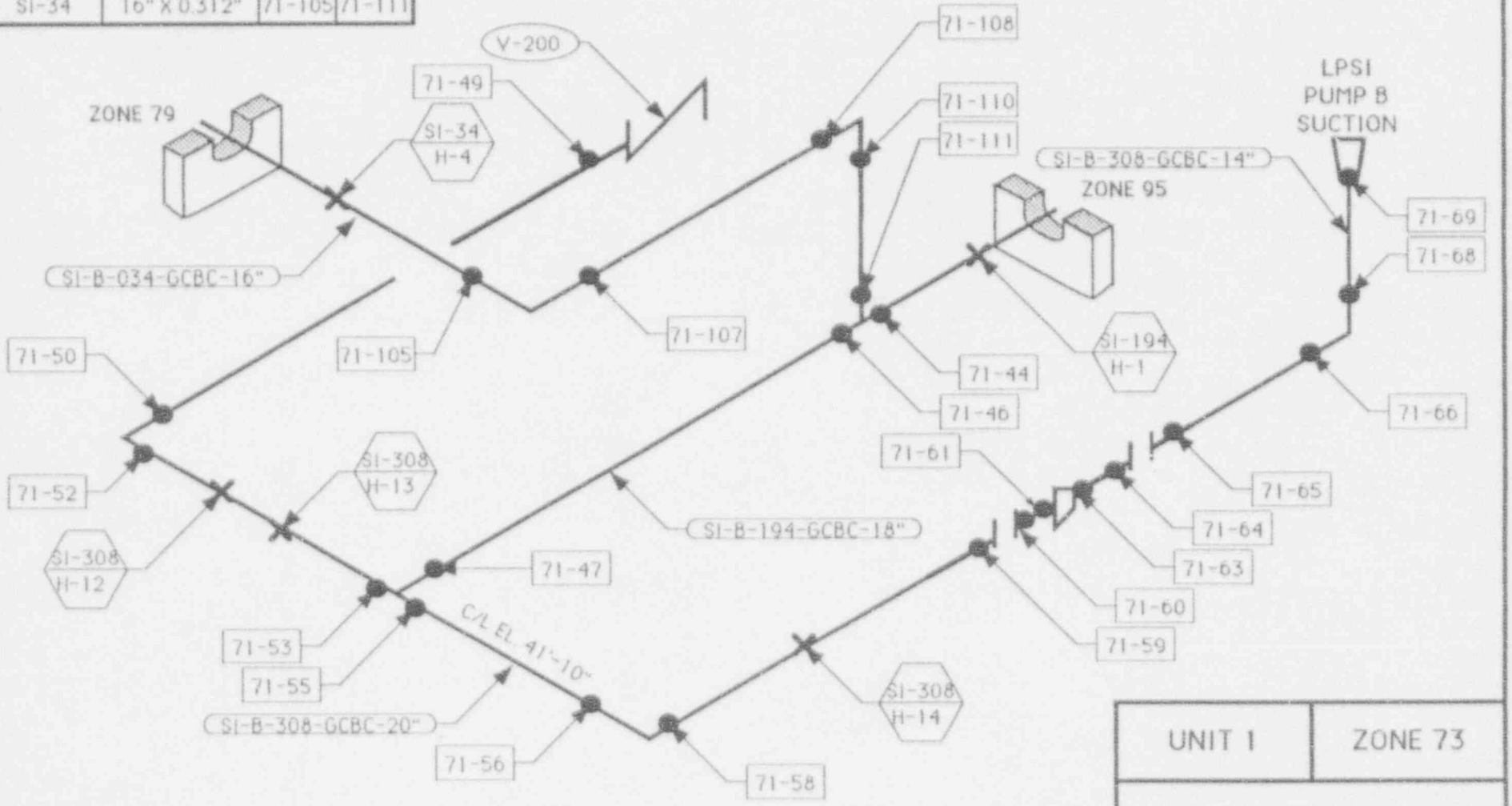
N001-11.01-36
N001-11.01-50

UNIT 1	ZONE 72	
LPSI PUMP A		
DRAWN BY: WJ.Y	CHECKED BY: RZ/3	REV. 0

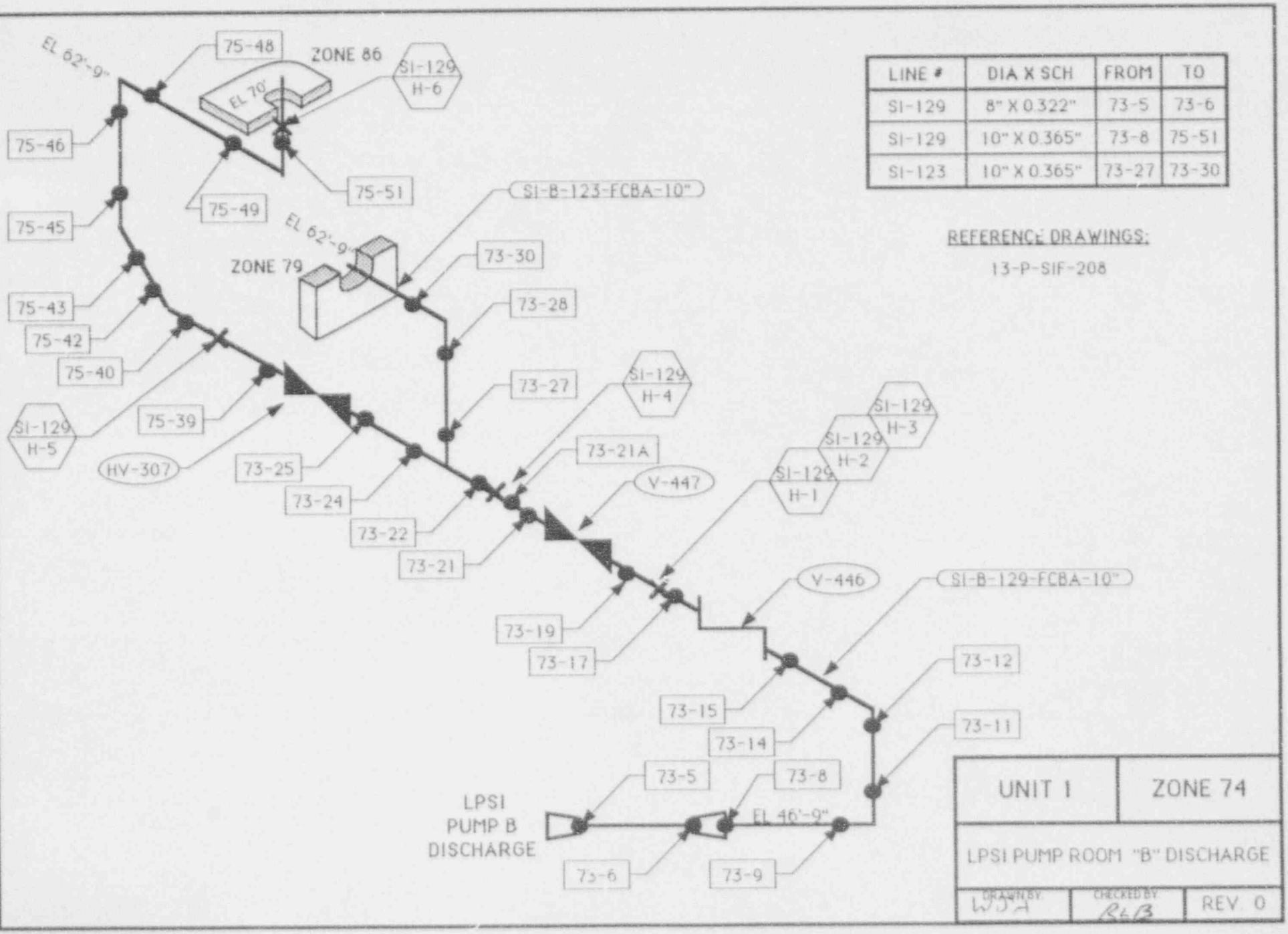
LINE #	DIA X SCH	FROM	TO
SI-308	14" X 0.312"	71-63	71-69
SI-308	20" X 0.375"	71-49	71-61
SI-194	18" X 0.312"	71-44	71-47
SI-34	16" X 0.312"	71-105	71-111

REFERENCE DRAWINGS:

13-P-SIF-202



UNIT 1	ZONE 73
LPSI PUMP ROOM "B" SUCTION	
DRAWN BY	CHECKED BY / REV. 0

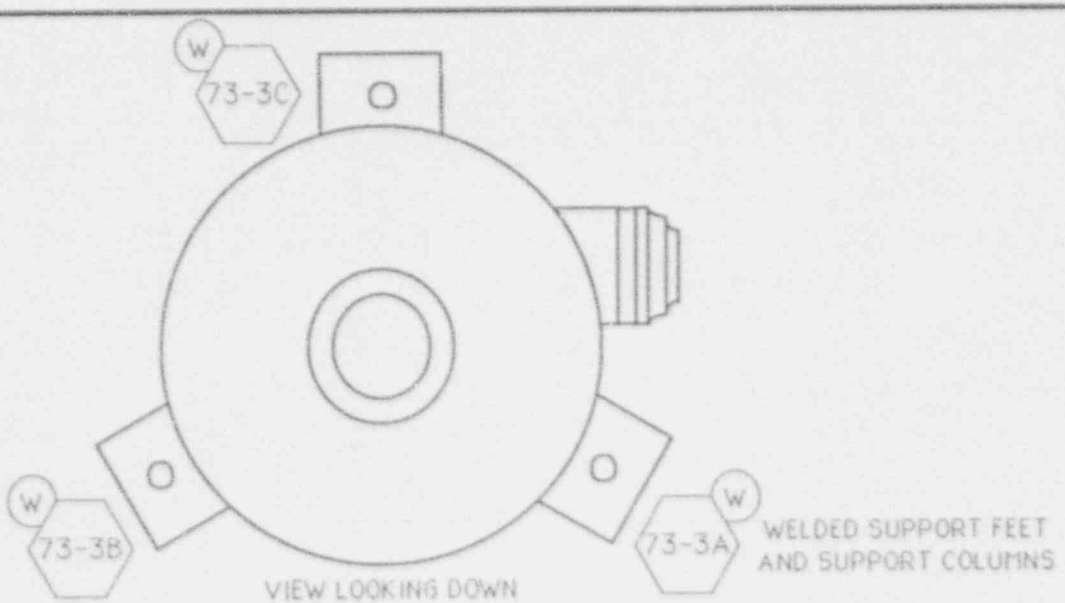


LINE #	DIA X SCH	FROM	TO
SI-129	8" X 0.322"	73-5	73-6
SI-129	10" X 0.365"	73-8	75-51
SI-123	10" X 0.365"	73-27	73-30

REFERENCE DRAWINGS:

13-P-SIF-208

UNIT 1	ZONE 74	
LPSI PUMP ROOM "B" DISCHARGE		
DRAWN BY: WJA	CHECKED BY: R&B	REV. 0

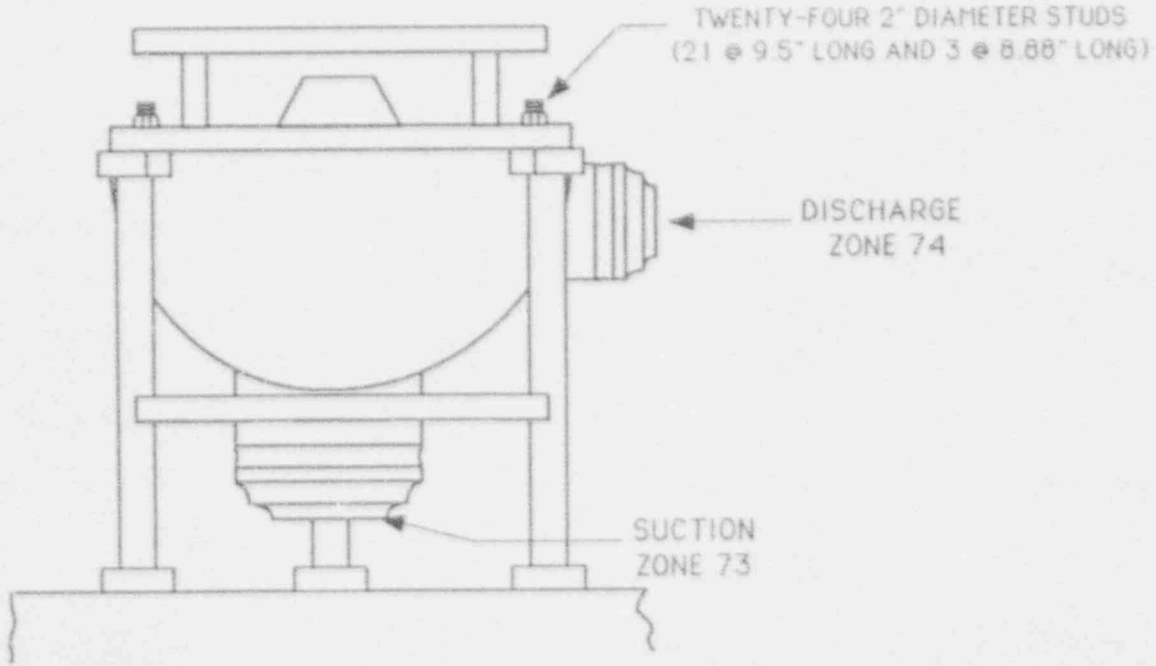


NOTES:

1) TAG NUMBER: 1MSIBP02

2) SERIAL NUMBER: 0876-37 INGERSOL RAND

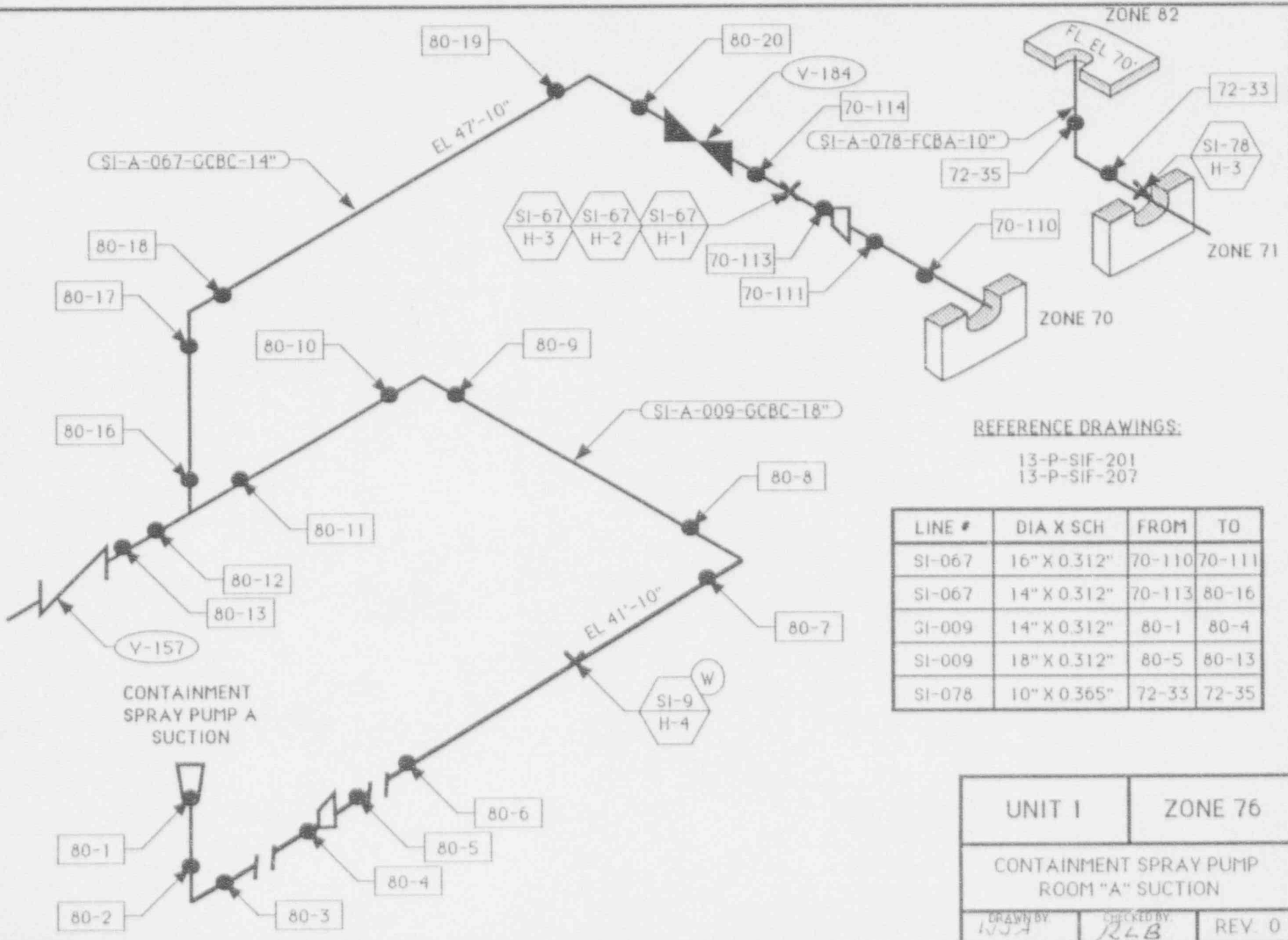
3) NATIONAL BOARD NUMBER: 524



REFERENCE DRAWINGS:

N001-11.01-36
N001-11.01-50

UNIT 1	ZONE 75	
LPSI PUMP B		
DRAWN BY: WJ	CHECKED BY: RLB	REV. 0

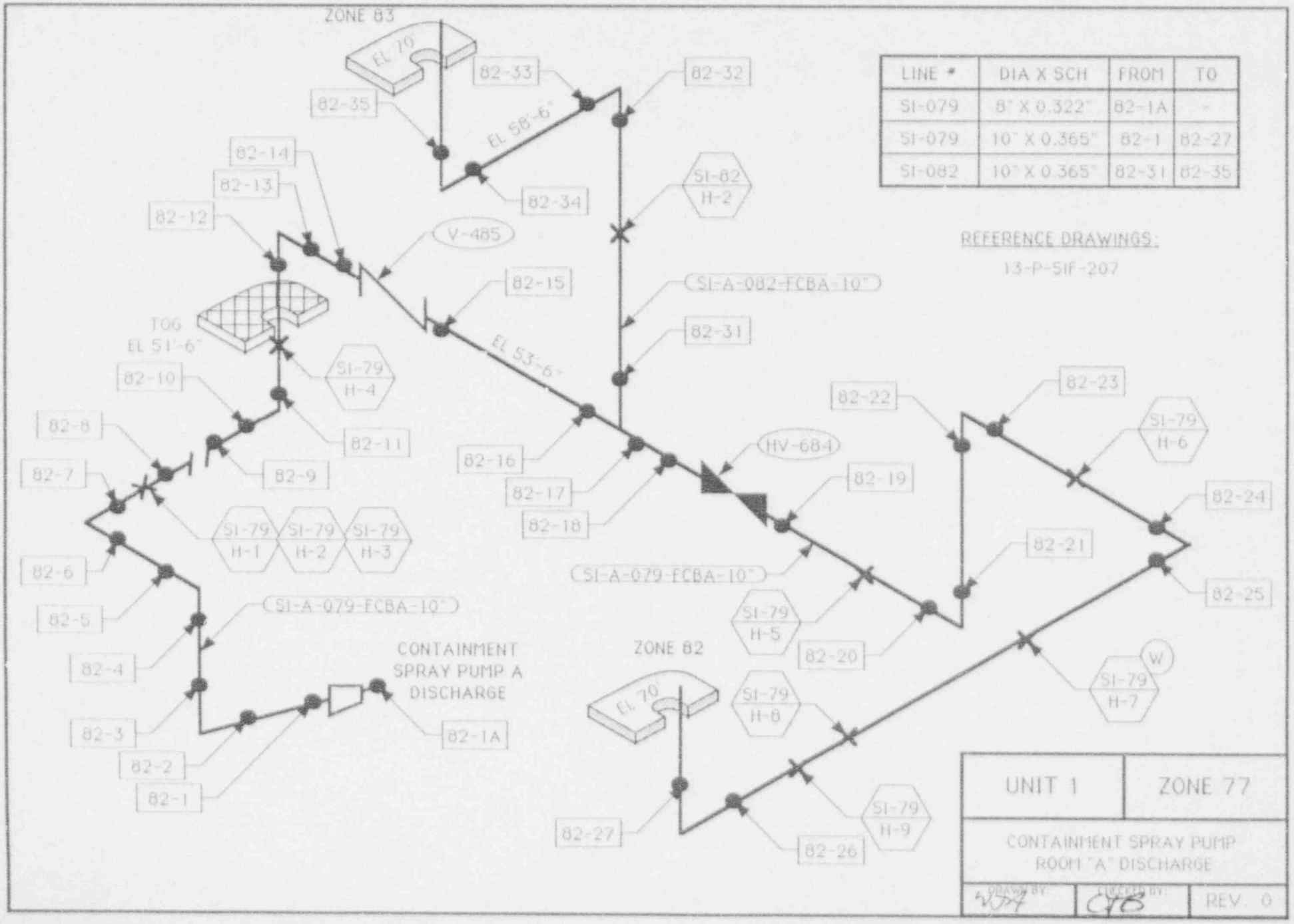


REFERENCE DRAWINGS:

13-P-SIF-201
13-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	
DRAWN BY: NJA	CHECKED BY: RLB / REV. 0

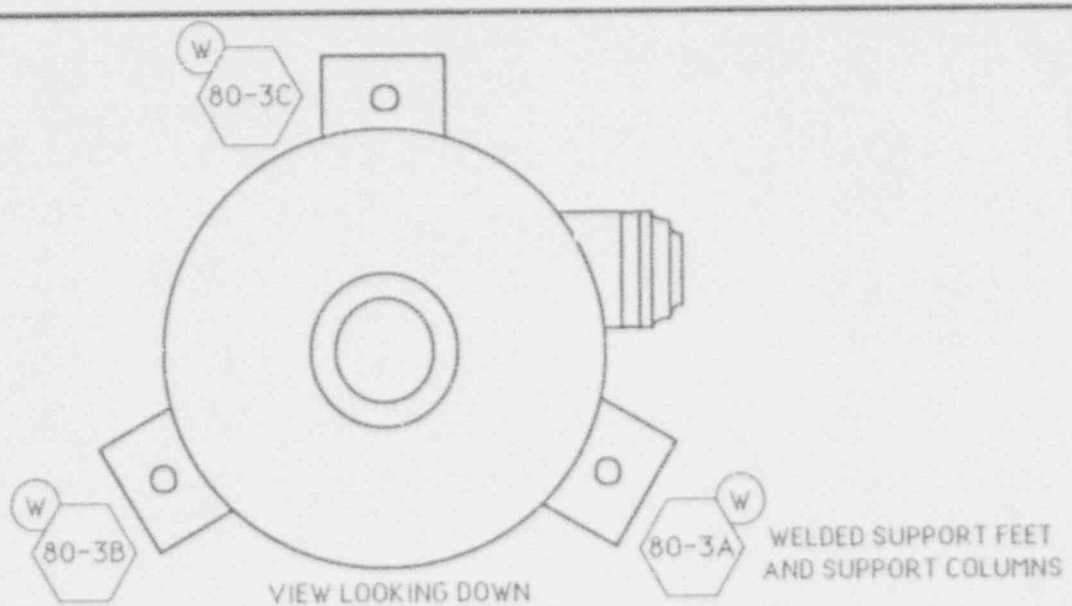


LINE #	DIA X SCH	FROM	TO
SI-079	8" X 0.322"	82-1A	-
SI-079	10" X 0.365"	82-1	82-27
SI-082	10" X 0.365"	82-31	82-35

REFERENCE DRAWINGS:

13-P-SIF-207

UNIT 1	ZONE 77
CONTAINMENT SPRAY PUMP ROOM "A" DISCHARGE	
DRAWN BY: VDT	CHECKED BY: CTB
REV. 0	



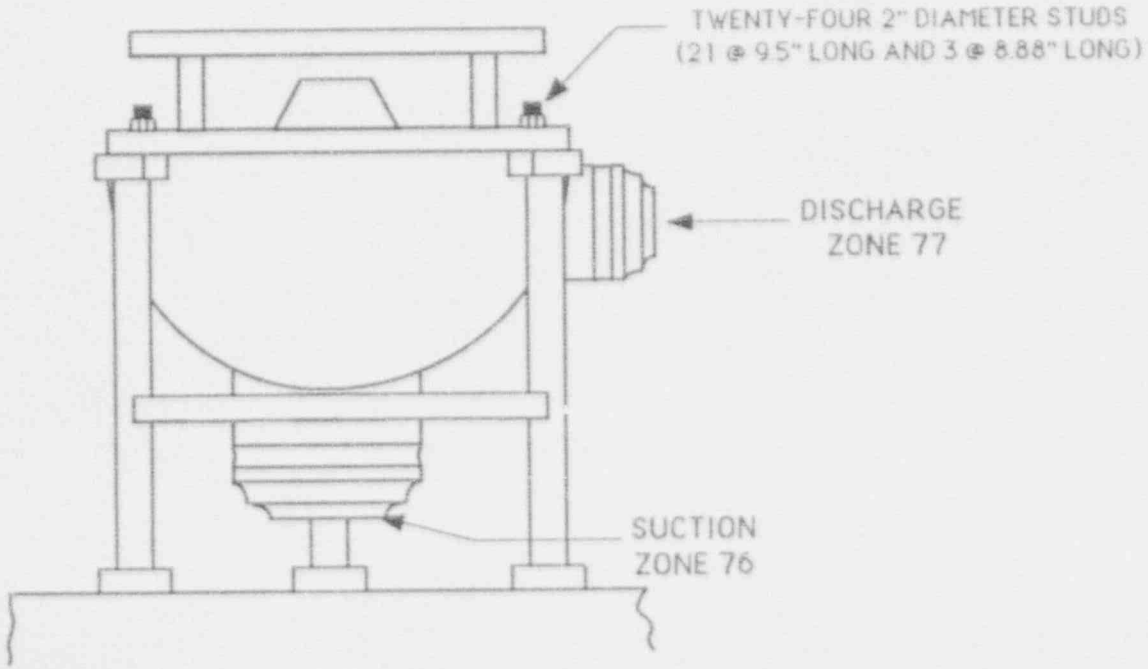
WELDED SUPPORT FEET
AND SUPPORT COLUMNS

NOTES:

1) TAG NUMBER: 1MSIAP03

2) SERIAL NUMBER: 0876-38 INGERSOL RAND

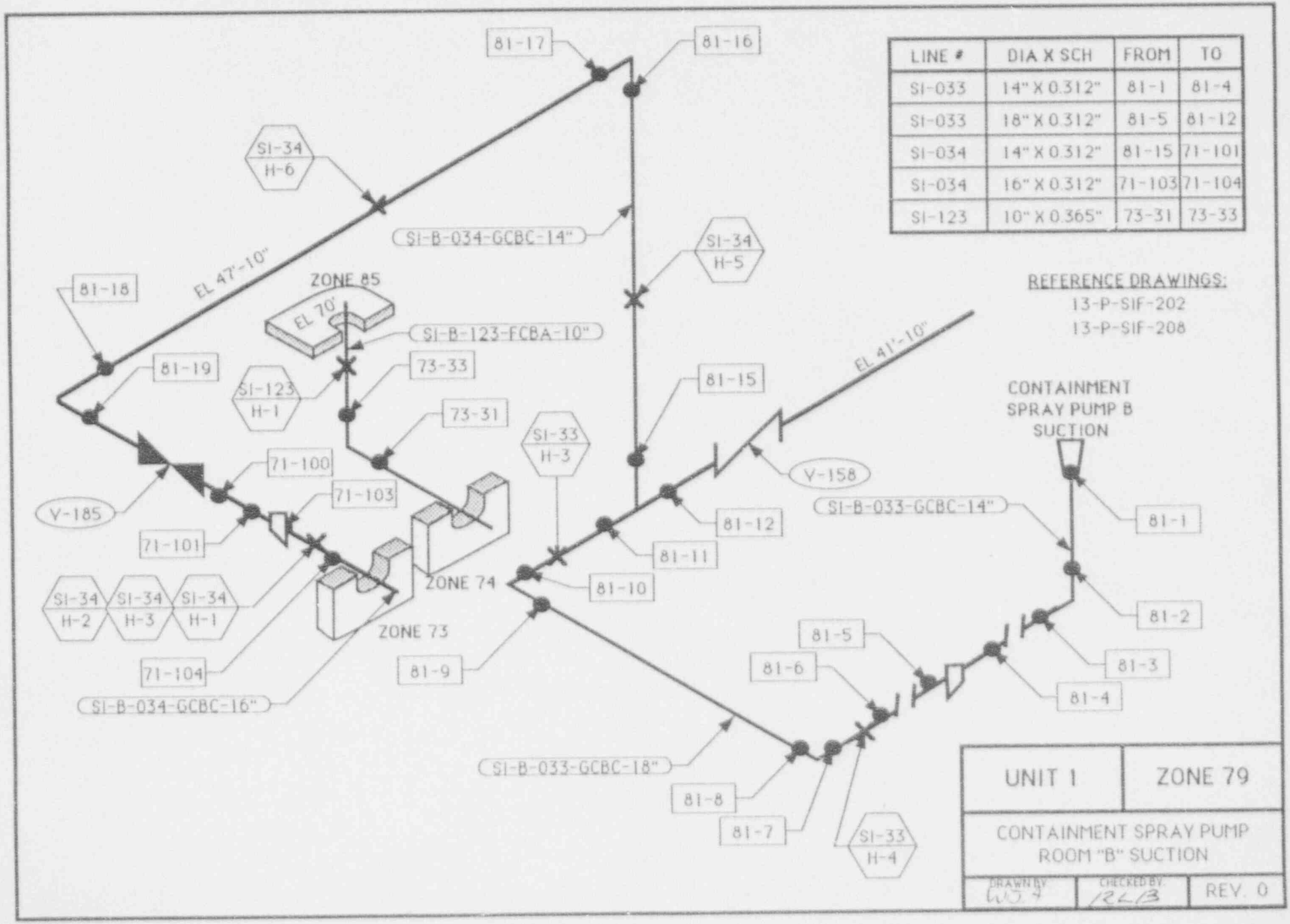
3) NATIONAL BOARD NUMBER: 521



REFERENCE DRAWINGS:

N001-11.01-36

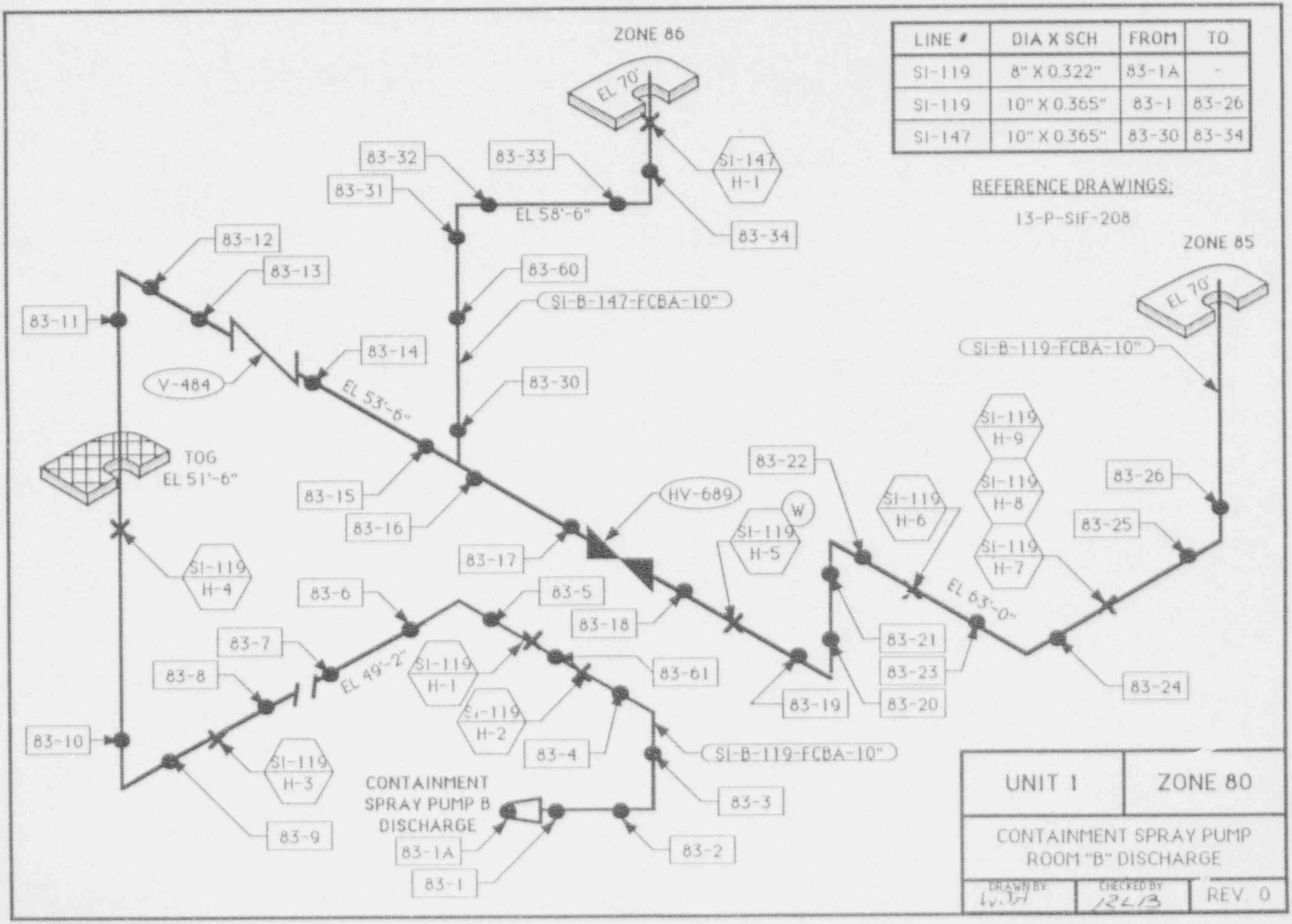
UNIT 1	ZONE 78
CONTAINMENT SPRAY PUMP A	
DRAWN BY W. J	CHECKED BY RLB	REV. 0



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:
13-P-SIF-202
13-P-SIF-208

UNIT 1	ZONE 79
CONTAINMENT SPRAY PUMP ROOM "B" SUCTION	
DRAWN BY: WJ 4	CHECKED BY: RLB
REV. 0	

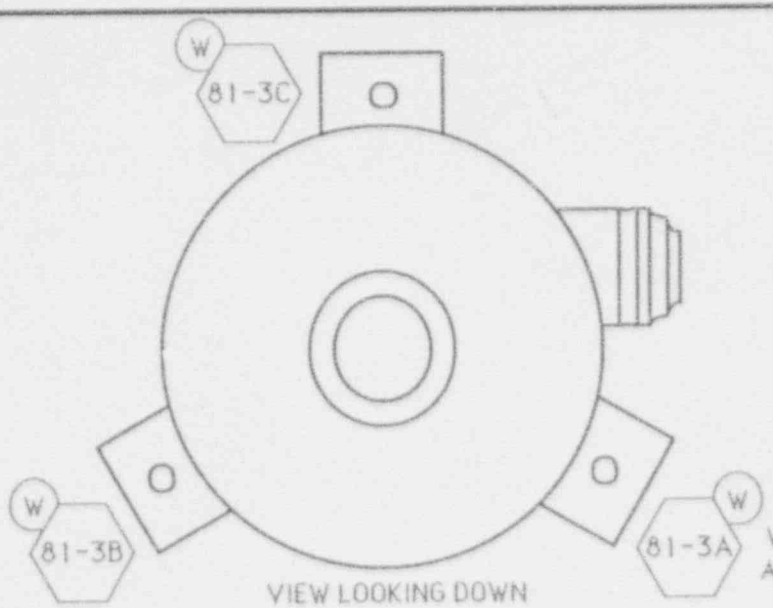


LINE #	DIA X SCH	FROM	TO
SI-119	8" X 0.322"	83-1A	-
SI-119	10" X 0.365"	83-1	83-26
SI-147	10" X 0.365"	83-30	83-34

REFERENCE DRAWINGS:

13-P-SIF-208

UNIT 1	ZONE 80
CONTAINMENT SPRAY PUMP ROOM "B" DISCHARGE	
DRAWN BY: LVH	CHECKED BY: 12/13
REV. 0	



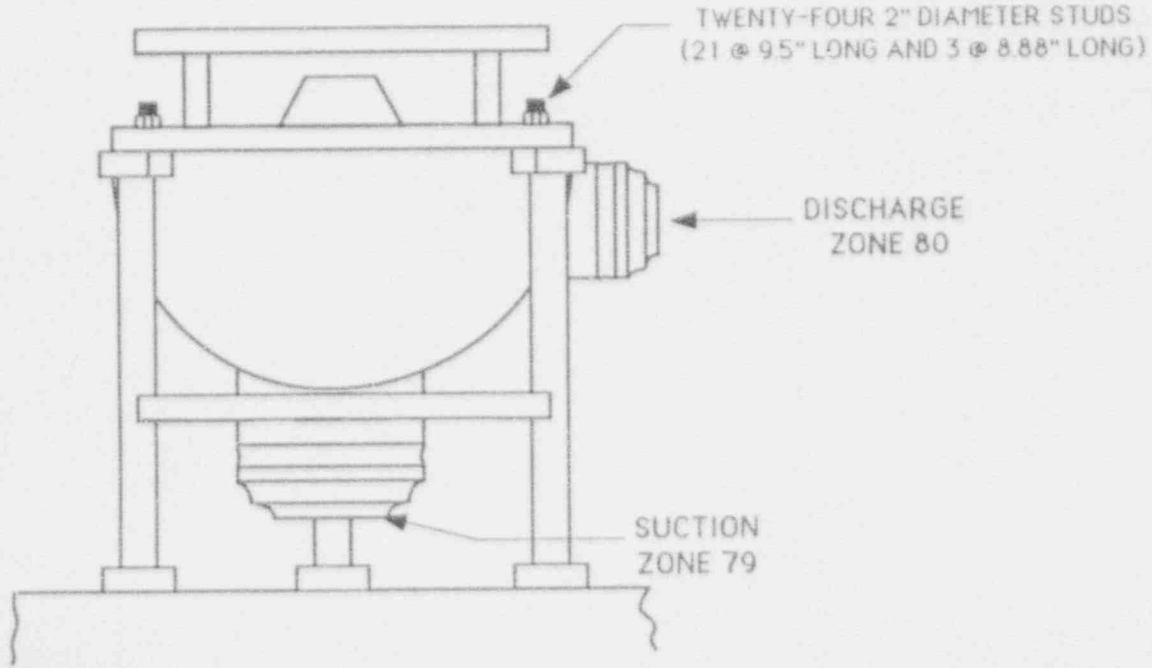
WELDED SUPPORT FEET
AND SUPPORT COLUMNS

NOTES:

1) TAG NUMBER: 1MSIBP03

2) SERIAL NUMBER: 0876-39 INGERSOL RAND

3) NATIONAL BOARD NUMBER: 522



REFERENCE DRAWINGS:

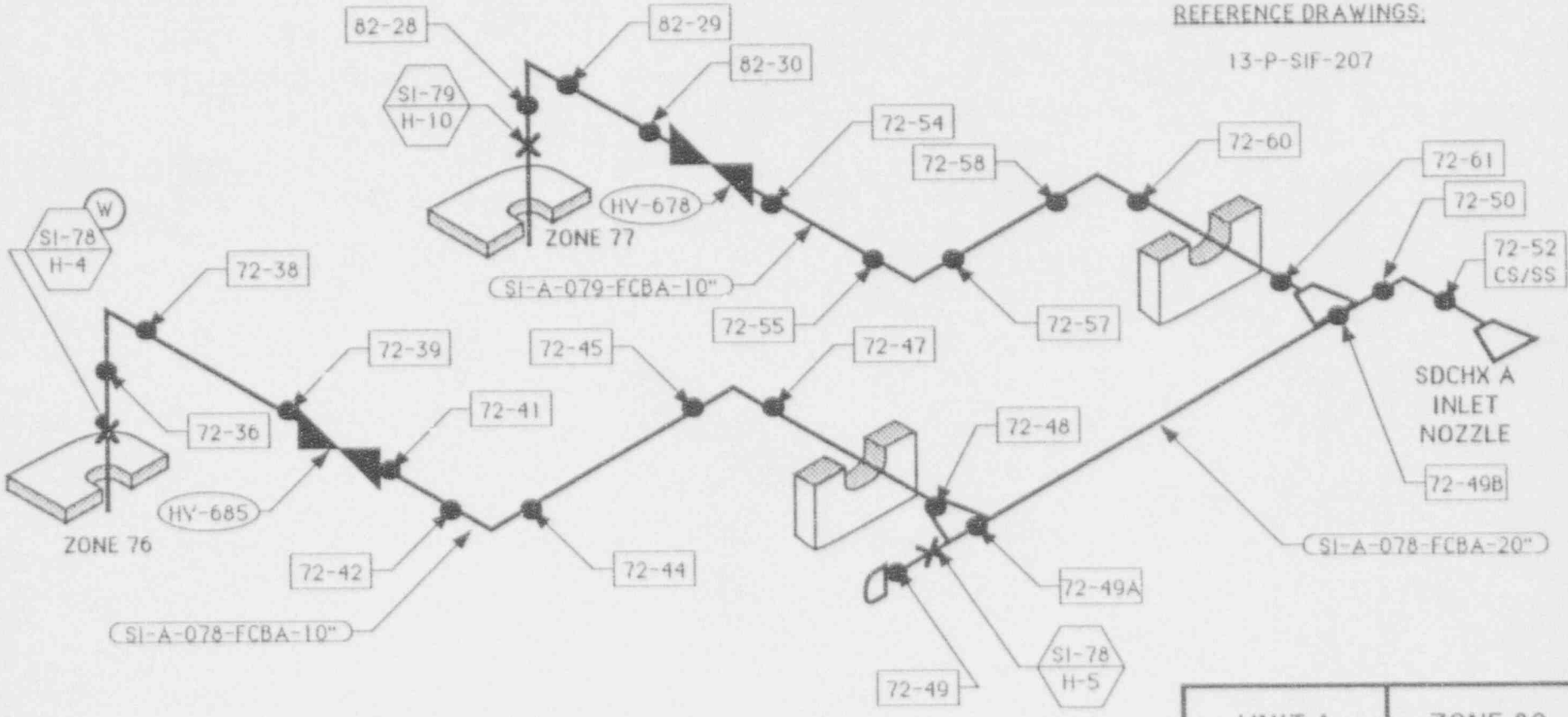
N001-11.01-36

UNIT 1	ZONE 81
CONTAINMENT SPRAY PUMP B	
DRAWN BY: W.J.	CHECKED BY: 12/13	REV. 0

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:

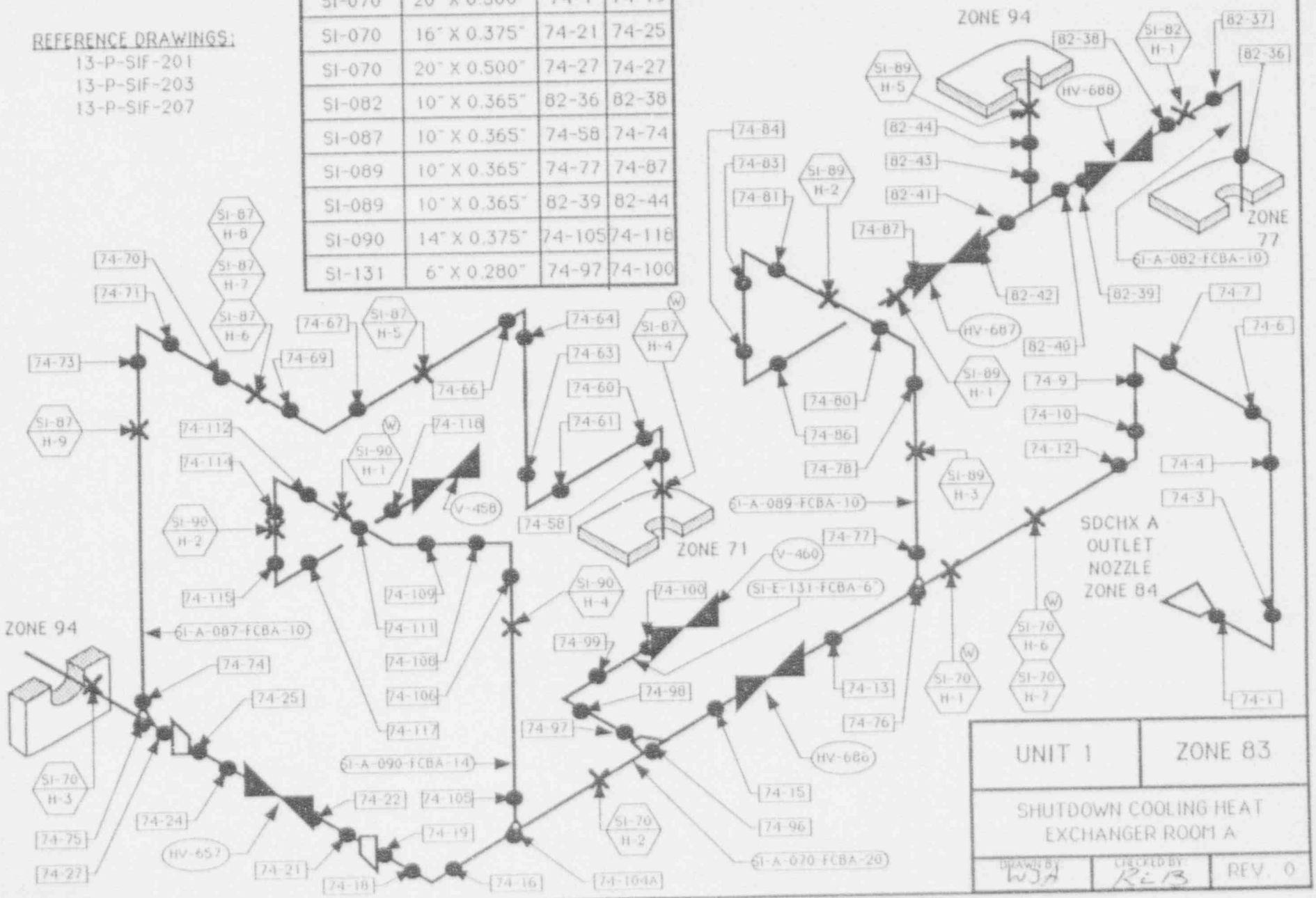
13-P-SIF-207



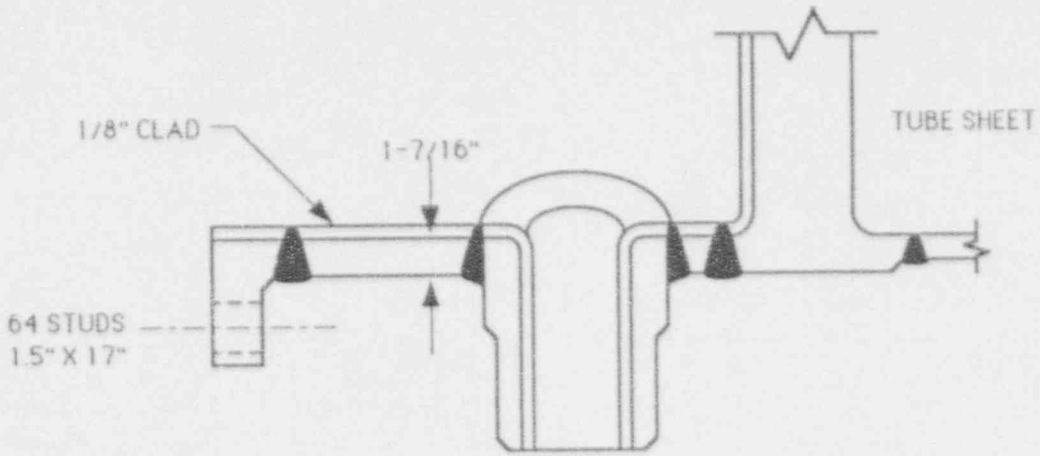
UNIT 1	ZONE 82
SHUTDOWN COOLING HEAT EXCHANGER ROOM A	
DRAWN BY: WJA	CHECKED BY: RCB
REV. 0	

REFERENCE DRAWINGS:
13-P-SIF-201
13-P-SIF-203
13-P-SIF-207

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	
DRAWN BY: WJH	CHECKED BY: RCB
REV. 0	



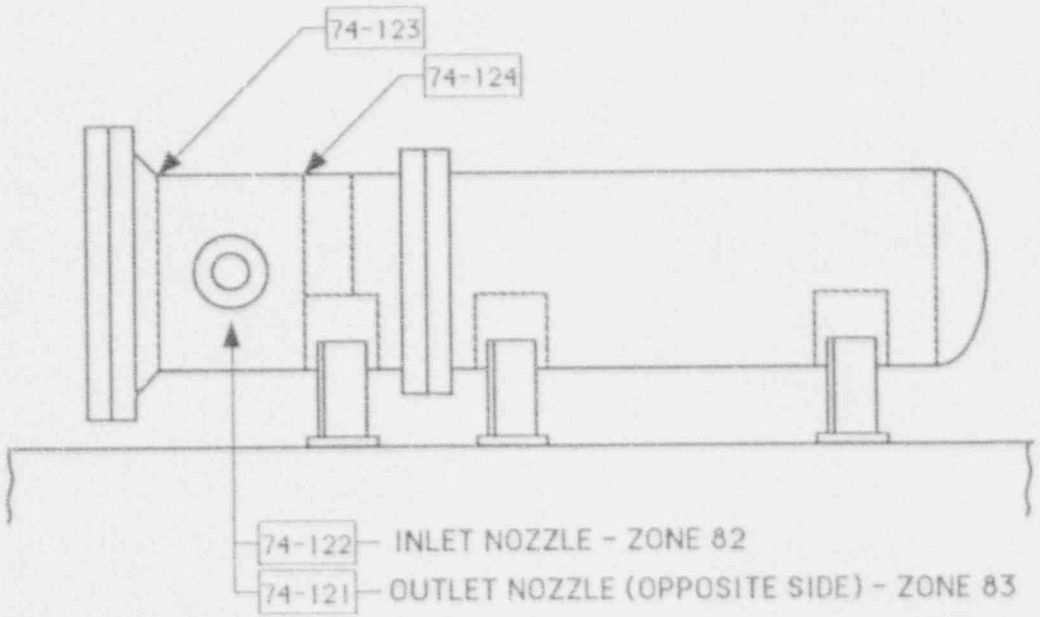
CHANNEL HEAD CROSS SECTION

NOTES:

1) TAG NUMBER: 1MS1AE01

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

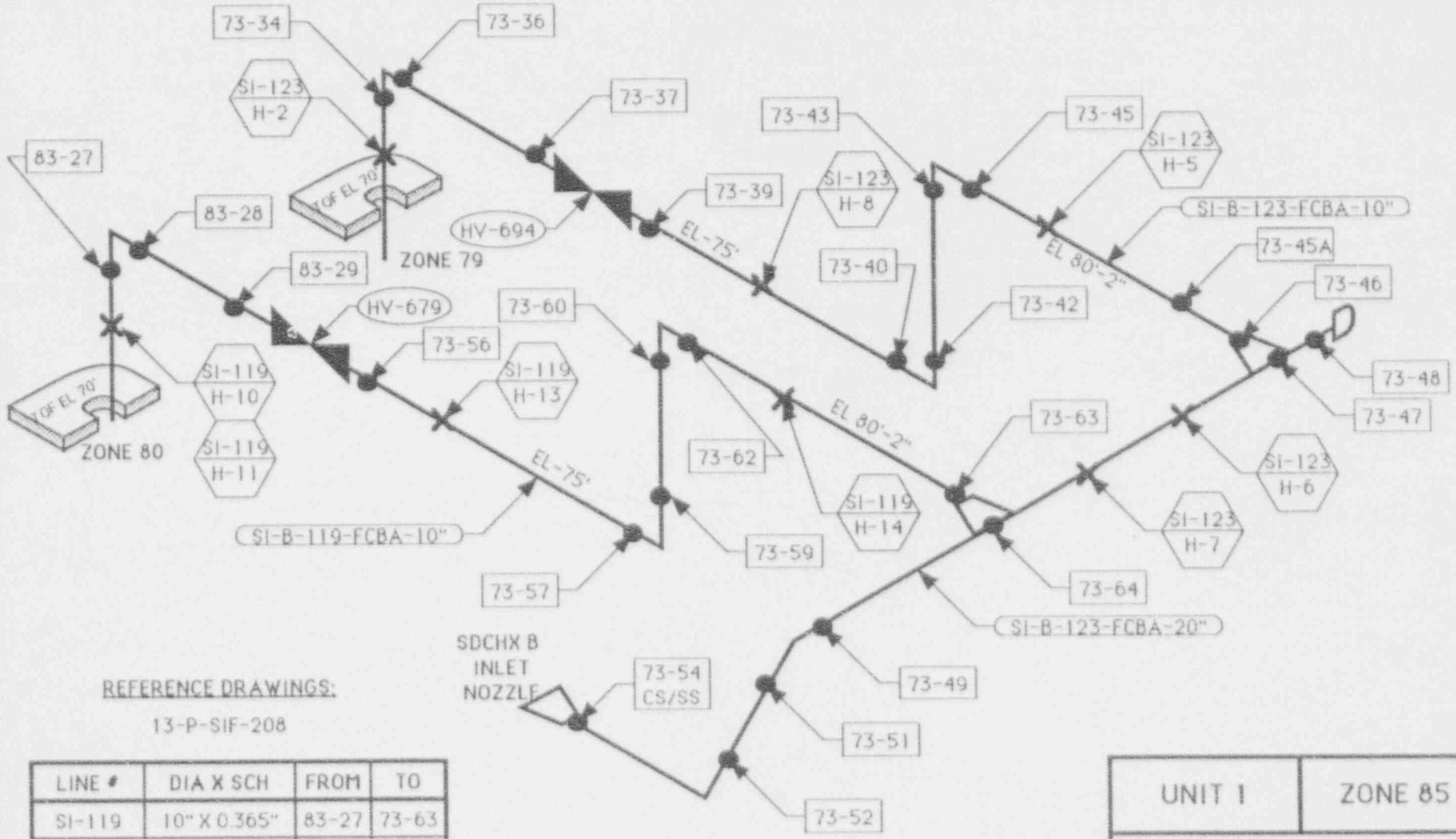
3) NATIONAL BOARD NUMBER: 1708



REFERENCE DRAWINGS:

N001-7.03-20
N001-7.03-25

UNIT 1	ZONE 84
SHUTDOWN COOLING HEAT EXCHANGER A	
DRAWN BY WJA	CHECKED BY RCB
REV 0	



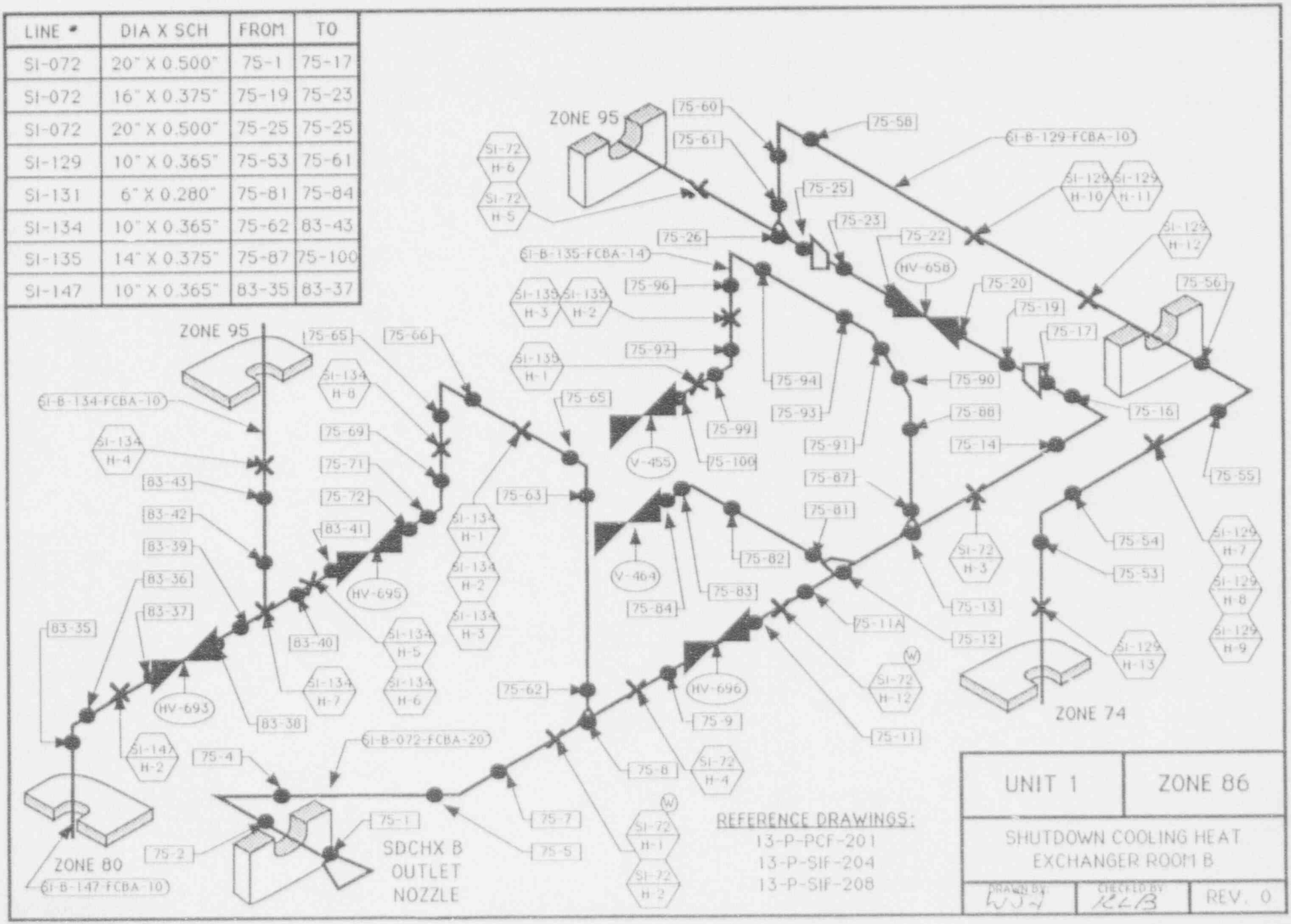
REFERENCE DRAWINGS:

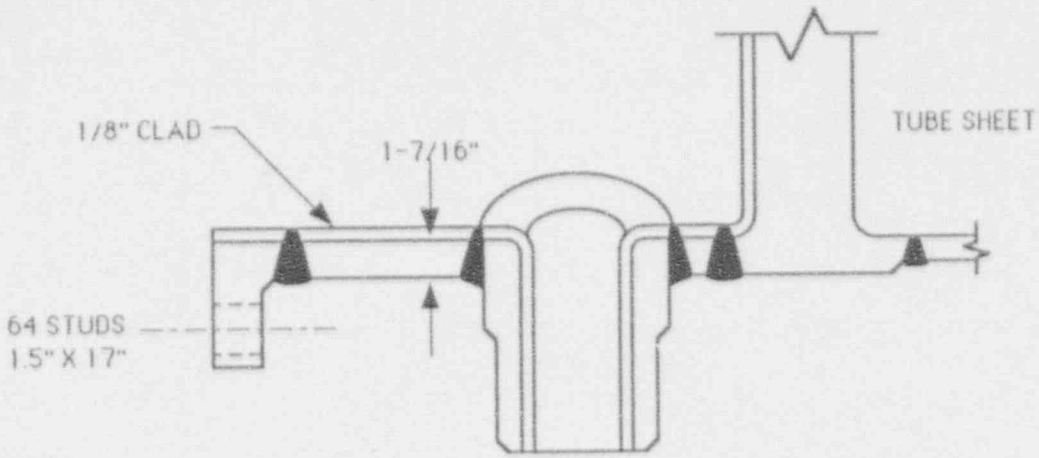
13-P-SIF-208

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

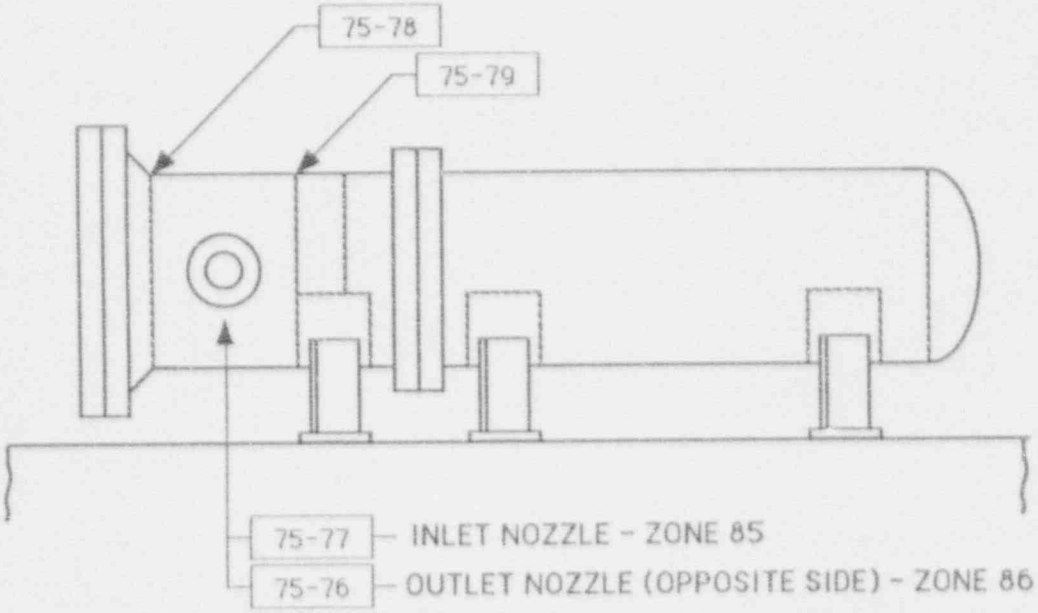
UNIT 1	ZONE 85
SHUTDOWN COOLING HEAT EXCHANGER ROOM B	
DRAWN BY: WJA	CHECKED BY: 12/13
REV. 0	

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	83-37





CHANNEL HEAD CROSS SECTION



NOTES:

1) TAG NUMBER: 1MSIBE01

2) SERIAL NUMBER: 1-18342
(ENGR & FABRICATORS)

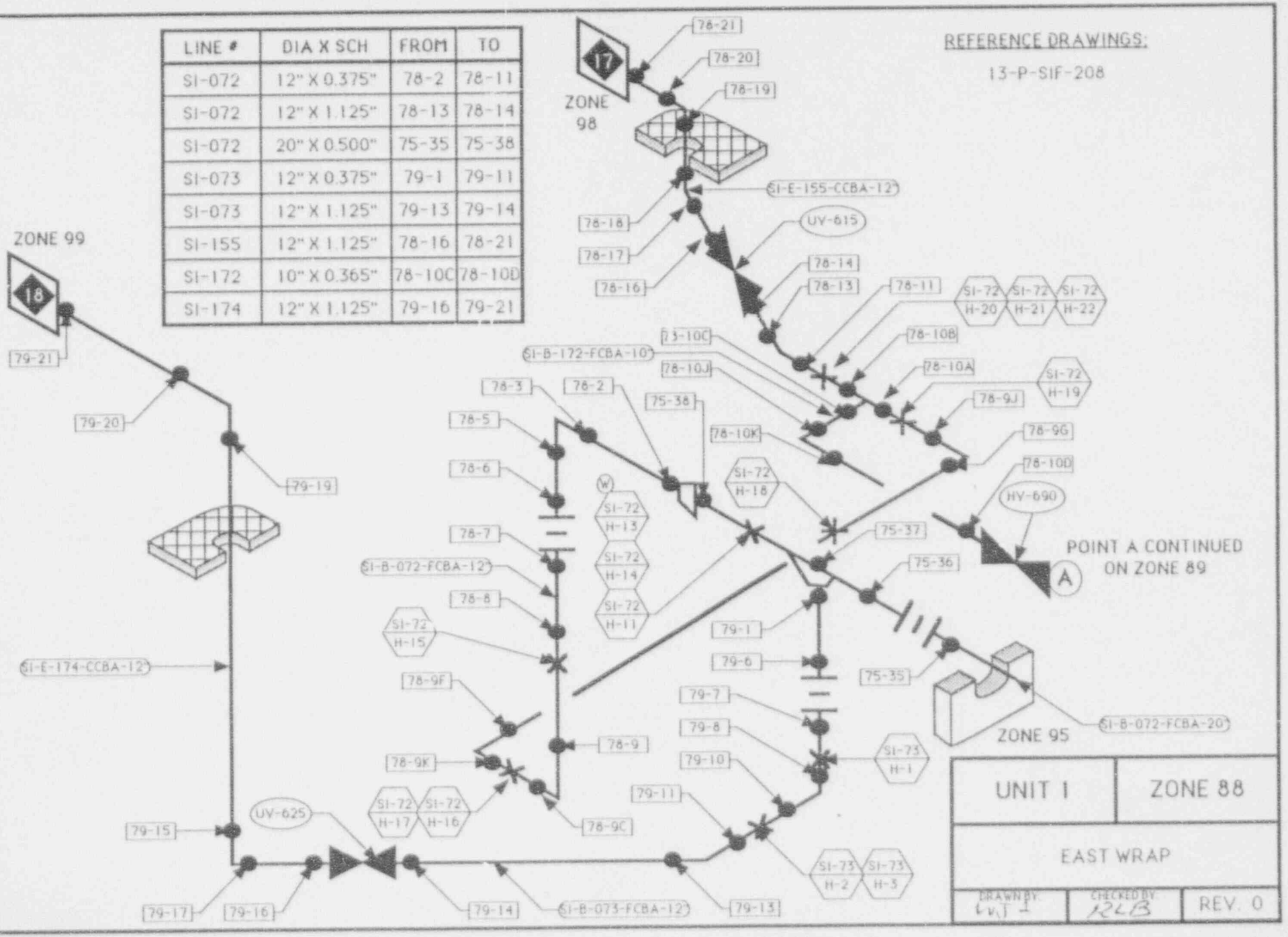
3) NATIONAL BOARD NUMBER: 1709

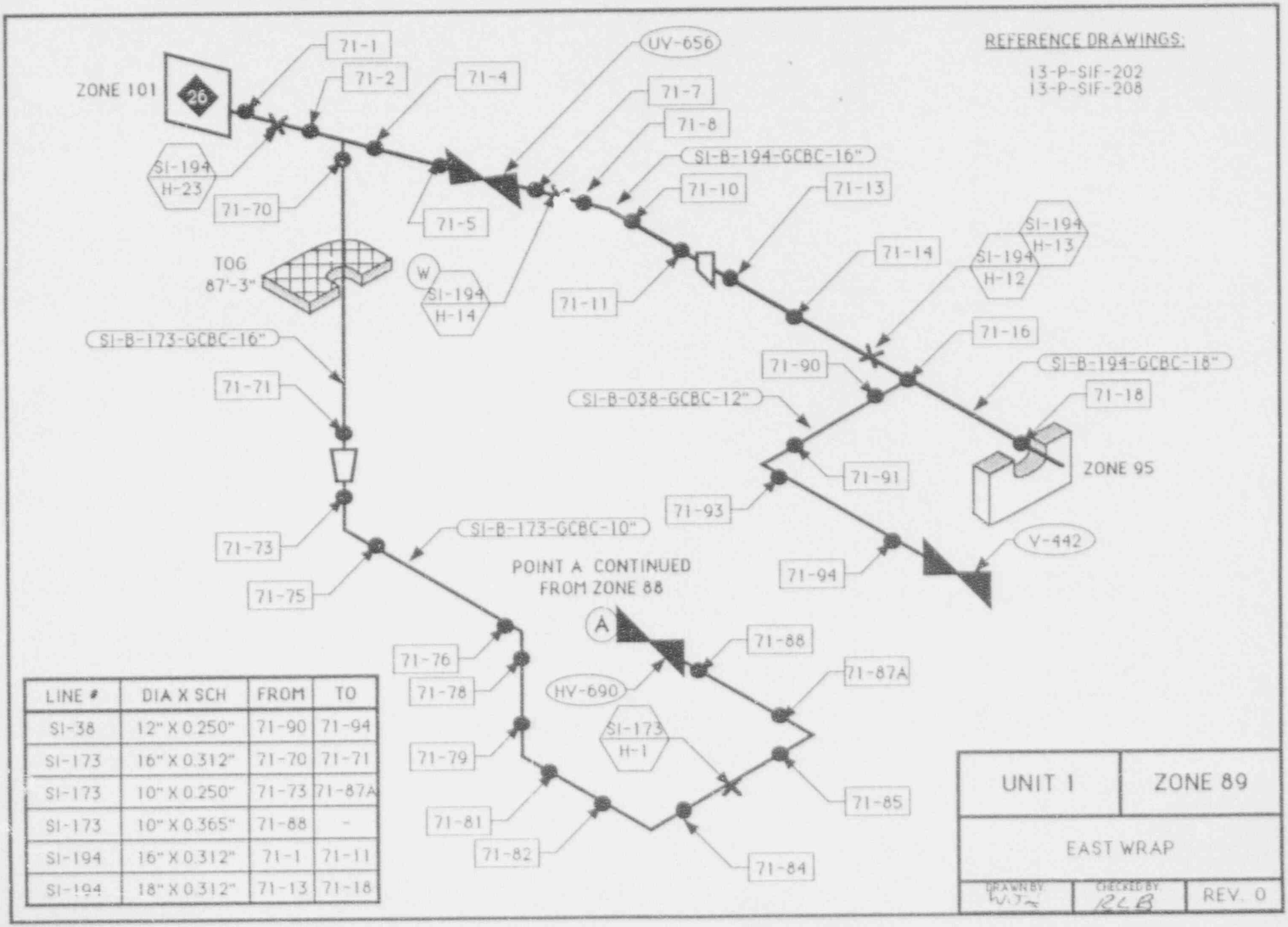
REFERENCE DRAWINGS:

N001-7.03-20
N001-7.03-25

UNIT 1	ZONE 87
SHUTDOWN COOLING HEAT EXCHANGER B	
DRAWN BY: [illegible]	CHECKED BY: RLB
REV. 0	

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

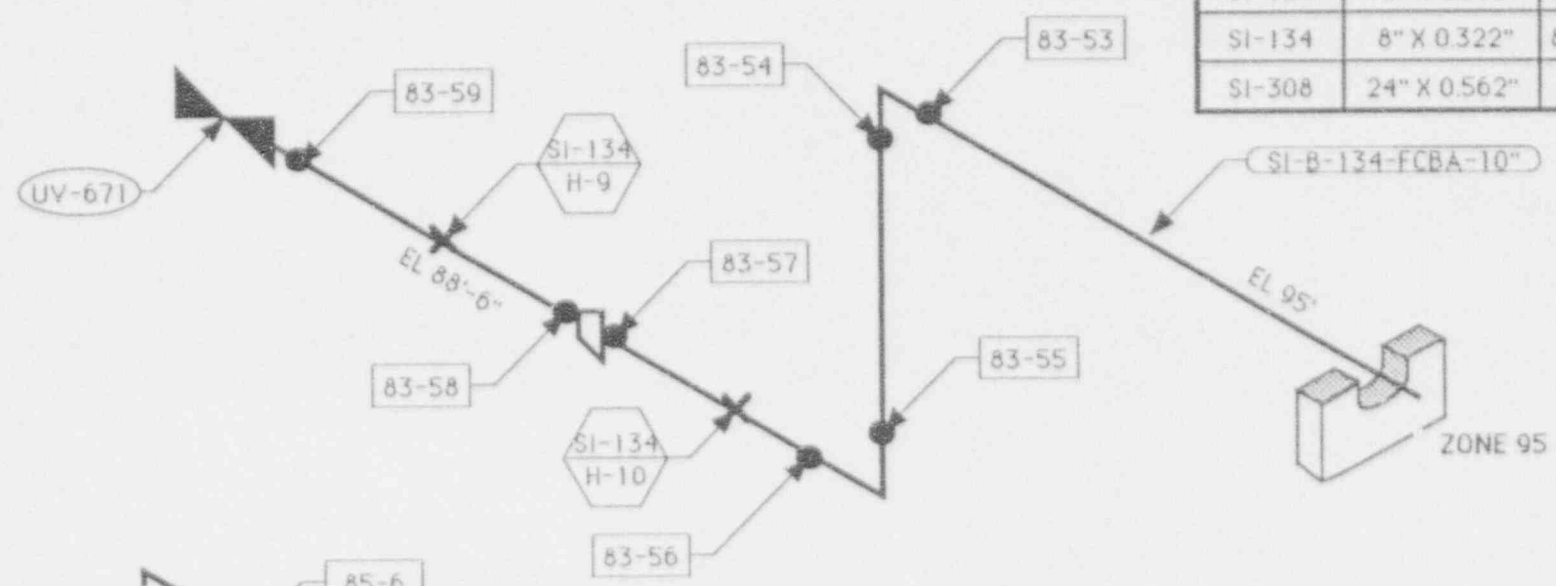


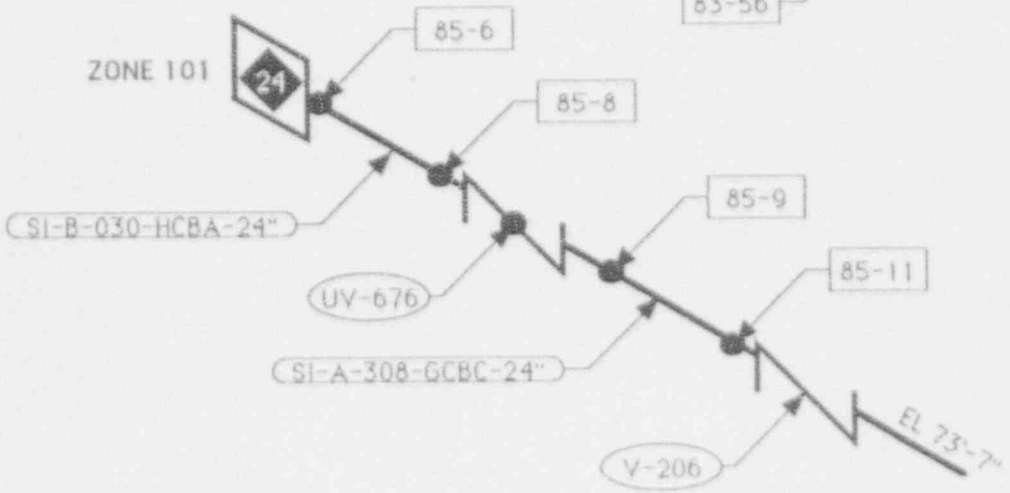


LINE #	DIA X SCH	FROM	TO
SI-38	12" X 0.250"	71-90	71-94
SI-173	16" X 0.312"	71-70	71-71
SI-173	10" X 0.250"	71-73	71-87A
SI-173	10" X 0.365"	71-88	-
SI-194	16" X 0.312"	71-1	71-11
SI-194	18" X 0.312"	71-13	71-18

UNIT 1	ZONE 89
EAST WRAP	
DRAWN BY WJ	CHECKED BY RLB / REV. 0

LINE #	DIA X SCH	FROM	TO
SI-030	24" X 0.375"	85-6	85-8
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

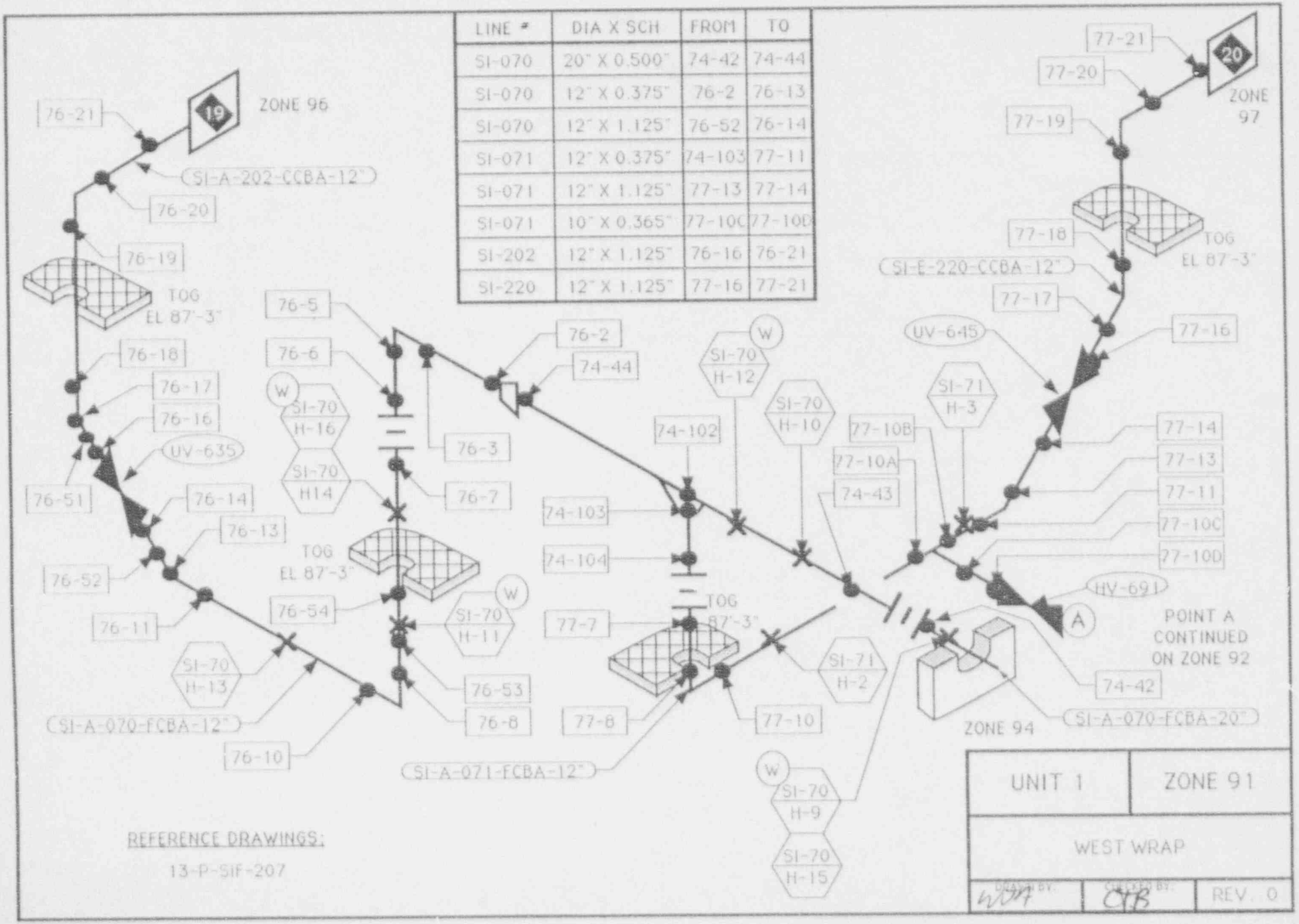


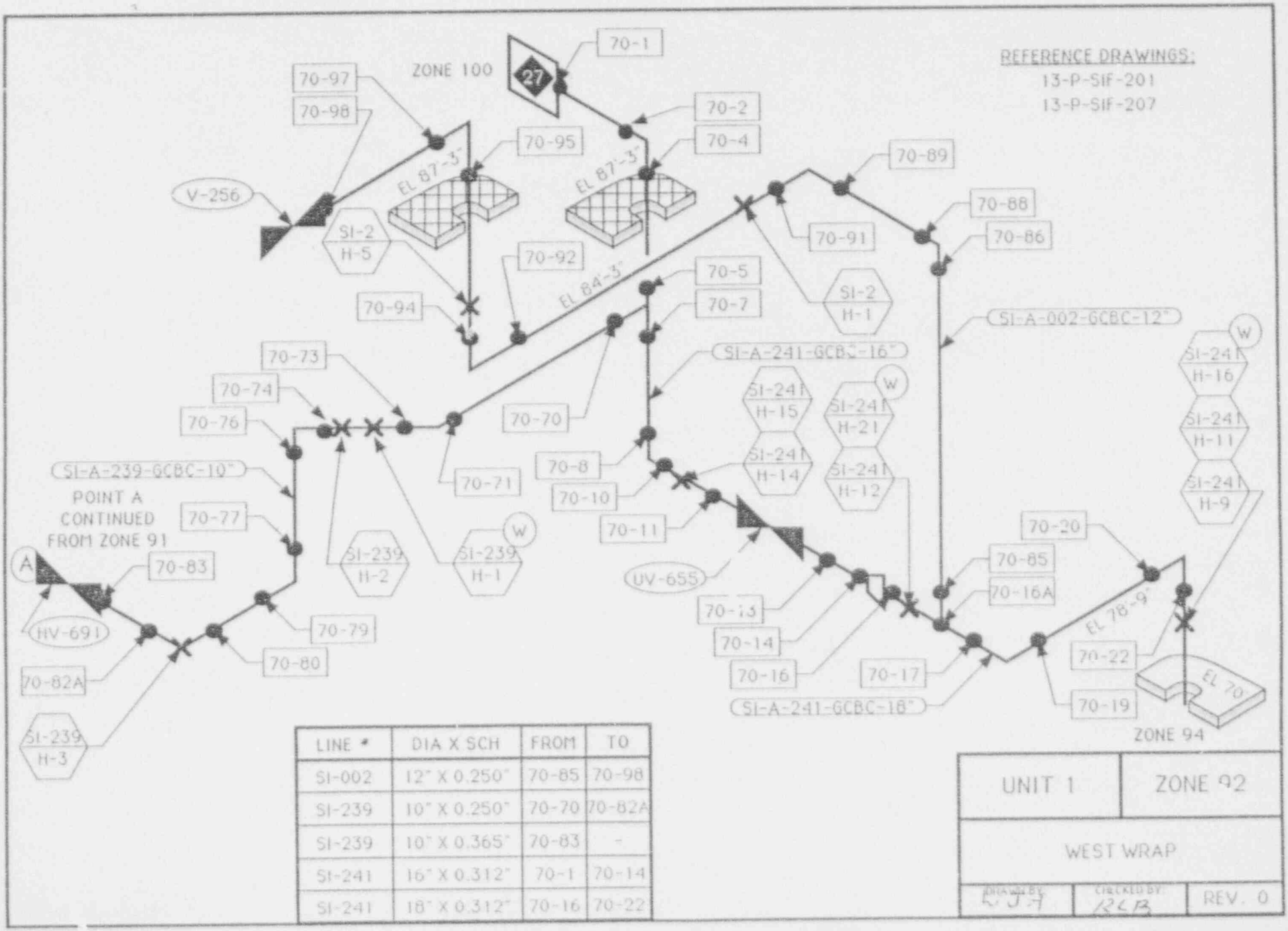


REFERENCE DRAWINGS:

13-P-SIF-202
13-P-SIF-208

UNIT 1	ZONE 90
EAST WRAP	
DRAWN BY: V.J.A	CHECKED BY: R.C.B	REV. 0

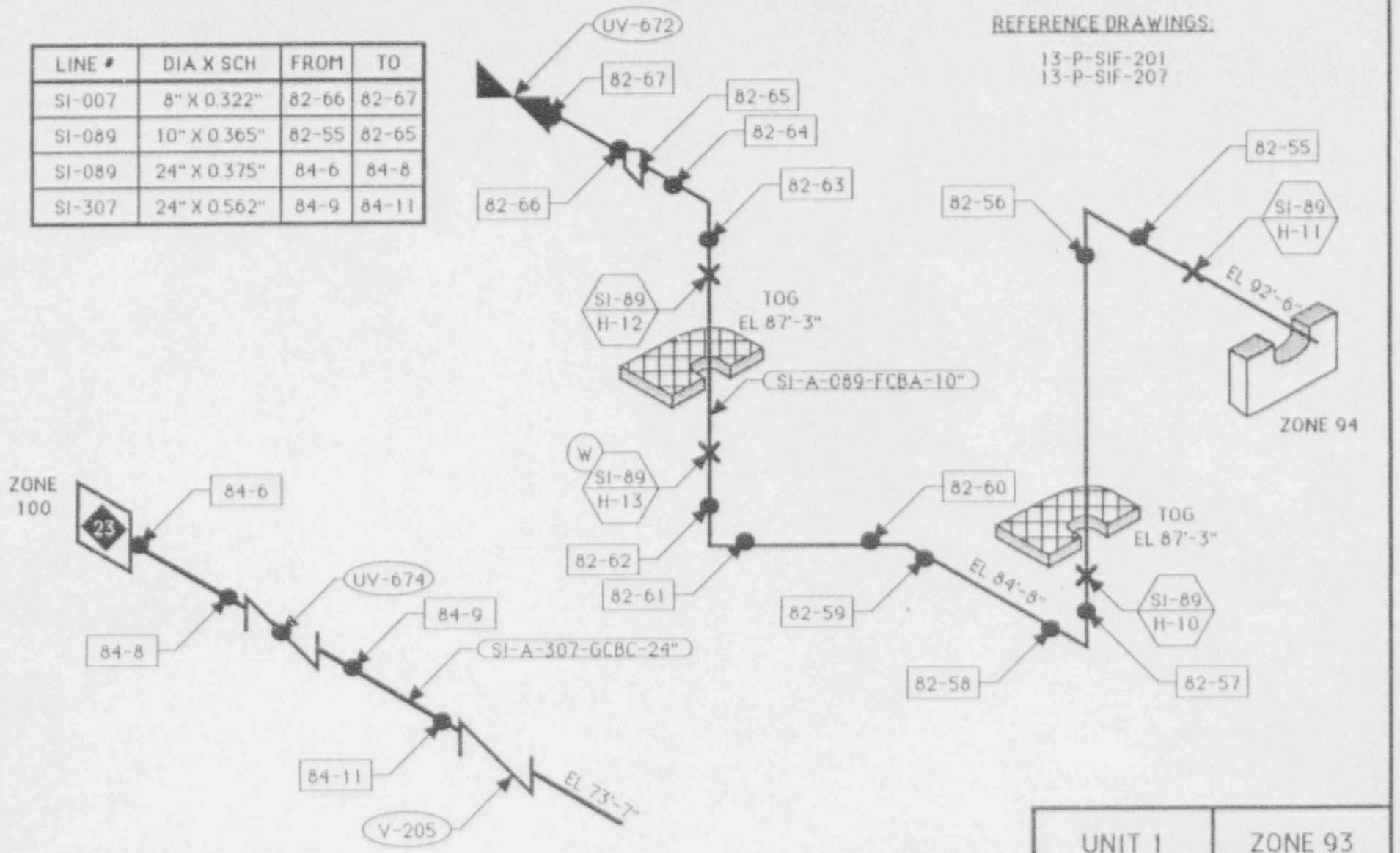

LINE # | DIA X SCH | FROM | TO
SI-070 | 20" X 0.500" | 74-42 | 74-44
SI-070 | 12" X 0.375" | 76-2 | 76-13
SI-070 | 12" X 1.125" | 76-52 | 76-14
SI-071 | 12" X 0.375" | 74-103 | 77-11
SI-071 | 12" X 1.125" | 77-13 | 77-14
SI-071 | 10" X 0.365" | 77-10C | 77-10D
SI-202 | 12" X 1.125" | 76-16 | 76-21
SI-220 | 12" X 1.125" | 77-16 | 77-21
ZONE 96
ZONE 97
ZONE 94
TOG EL 87'-3"
SI-A-202-CCBA-12"
SI-E-220-CCBA-12"
SI-A-070-FCBA-12"
SI-A-071-FCBA-12"
SI-A-070-FCBA-20"
UV-635
UV-645
HV-691
POINT A CONTINUED ON ZONE 92
REFERENCE DRAWINGS:
13-P-SIF-207
UNIT 1
ZONE 91
WEST WRAP
REV. 0



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	
DRAWN BY: S.J.T	CHECKED BY: R.C.B	REV. 0

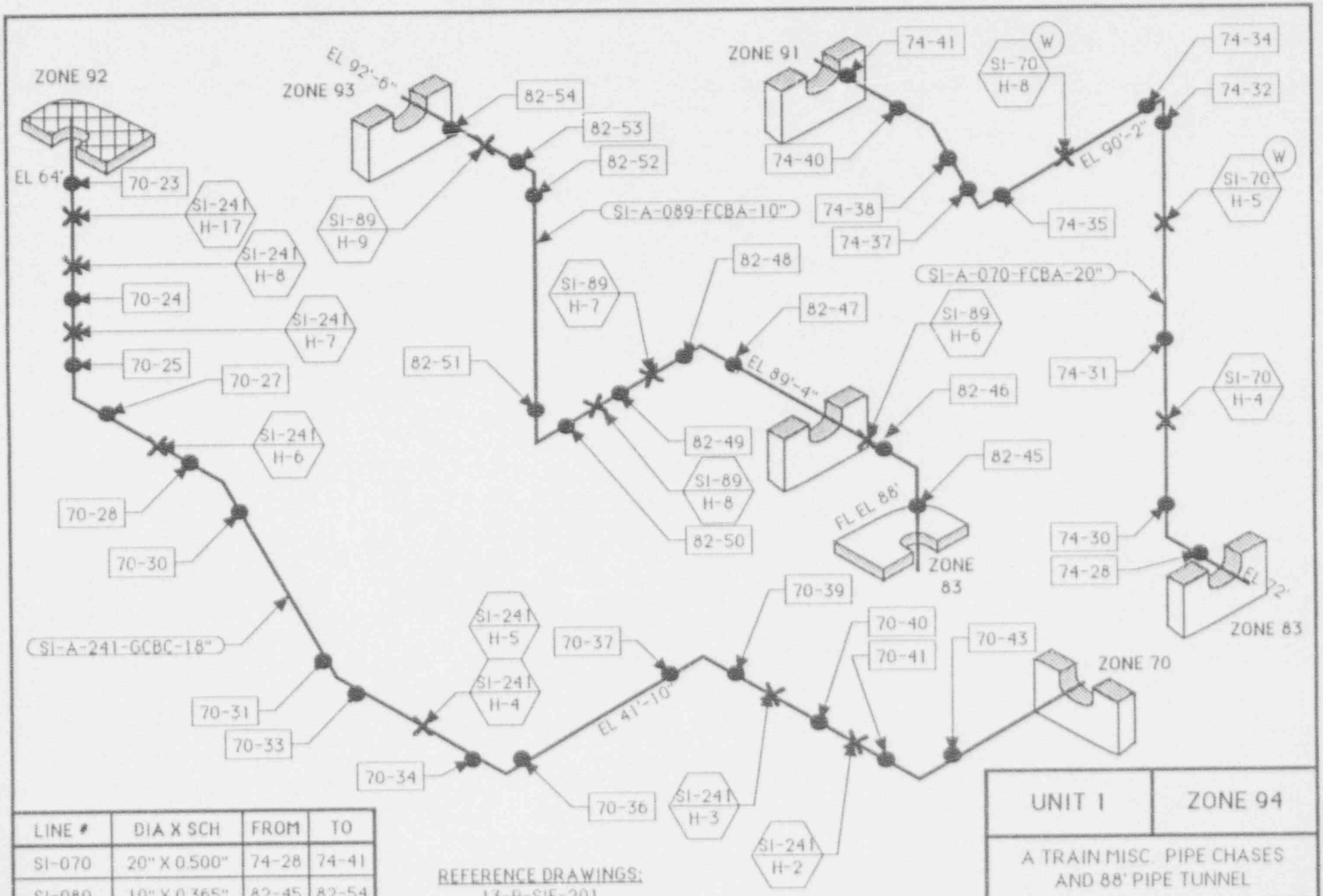
LINE #	DIA X SCH	FROM	TO
SI-007	8" X 0.322"	82-66	82-67
SI-089	10" X 0.365"	82-55	82-65
SI-089	24" X 0.375"	84-6	84-8
SI-307	24" X 0.562"	84-9	84-11



REFERENCE DRAWINGS:

13-P-SIF-201
13-P-SIF-207

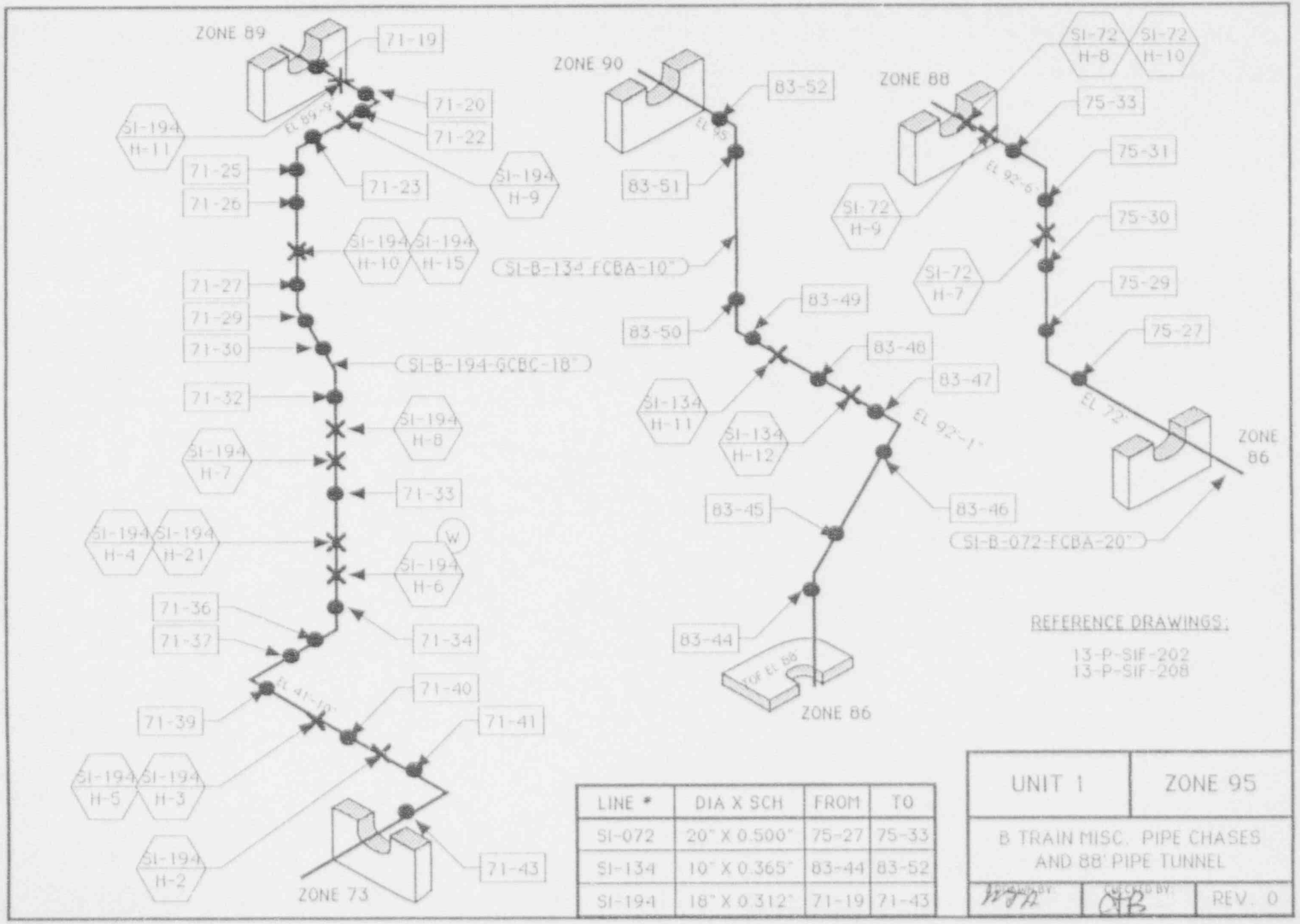
UNIT 1	ZONE 93
WEST WRAP	
DRAWN BY: WJH	CHECKED BY: RLB
REV. 0	



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:
13-P-SIF-201
13-P-SIF-207

UNIT 1	ZONE 94
A TRAIN MISC. PIPE CHASES AND 88' PIPE TUNNEL	
DRAWN BY WJ-T	CHECKED BY JZB
REV 0	

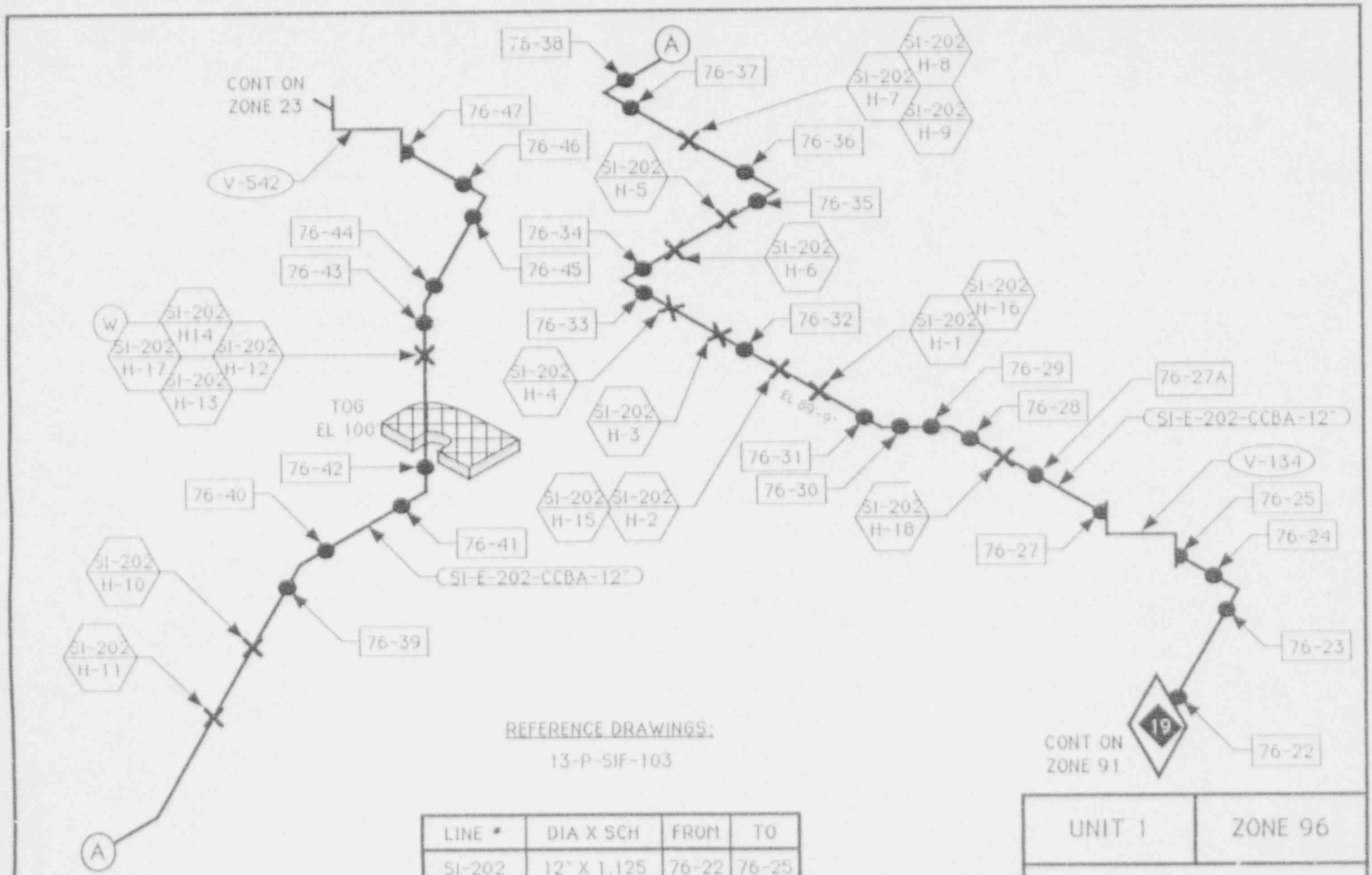


REFERENCE DRAWINGS:

13-P-SIF-202
13-P-SIF-208

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	
DRAWN BY:	CHECKED BY: REV. 0

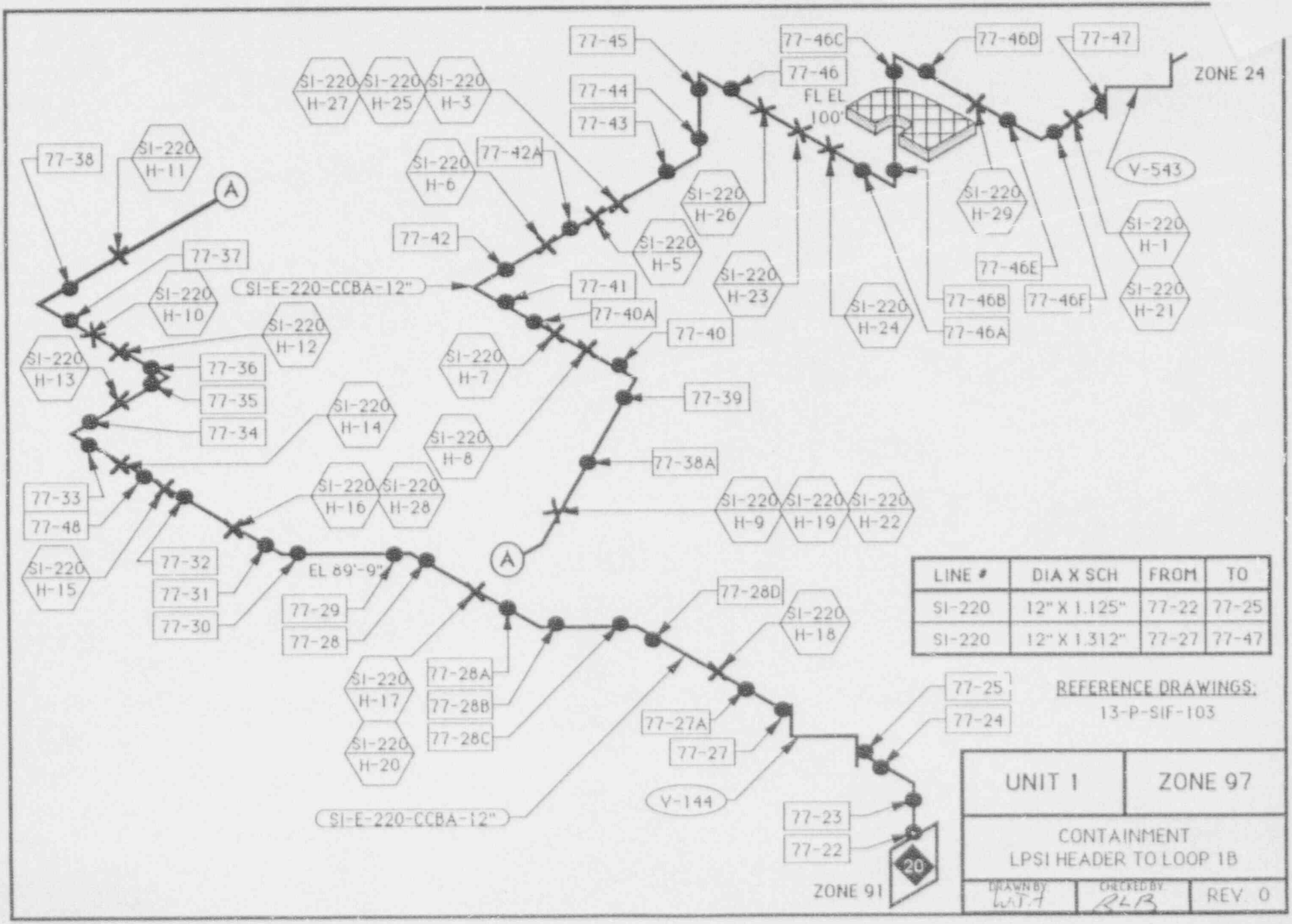


REFERENCE DRAWINGS:

13-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	
DRAWN BY:	REVIEWED BY: REV. 0

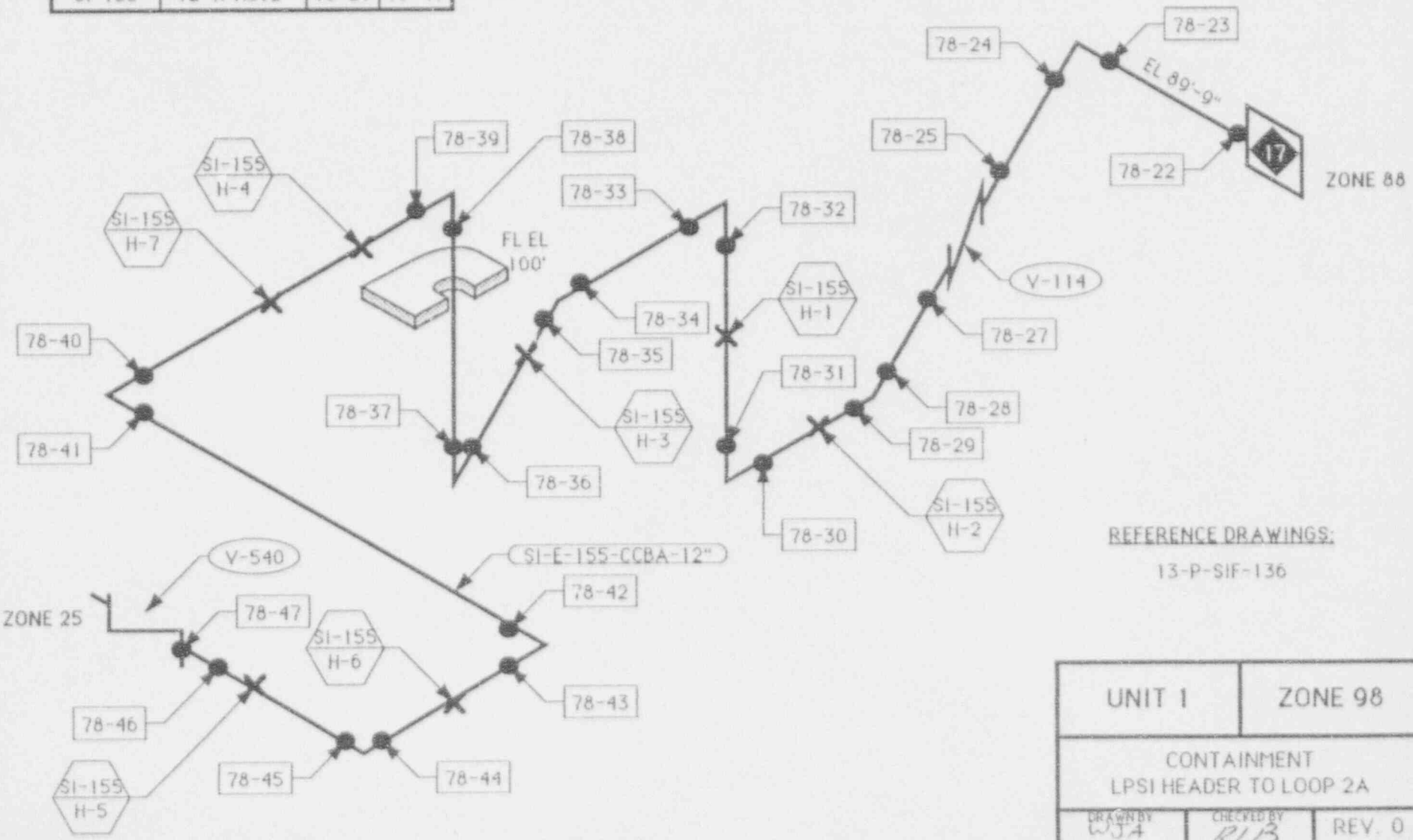


LINE #	DIA X SCH	FROM	TO
SI-220	12" X 1.125"	77-22	77-25
SI-220	12" X 1.312"	77-27	77-47

REFERENCE DRAWINGS:
13-P-SIF-103

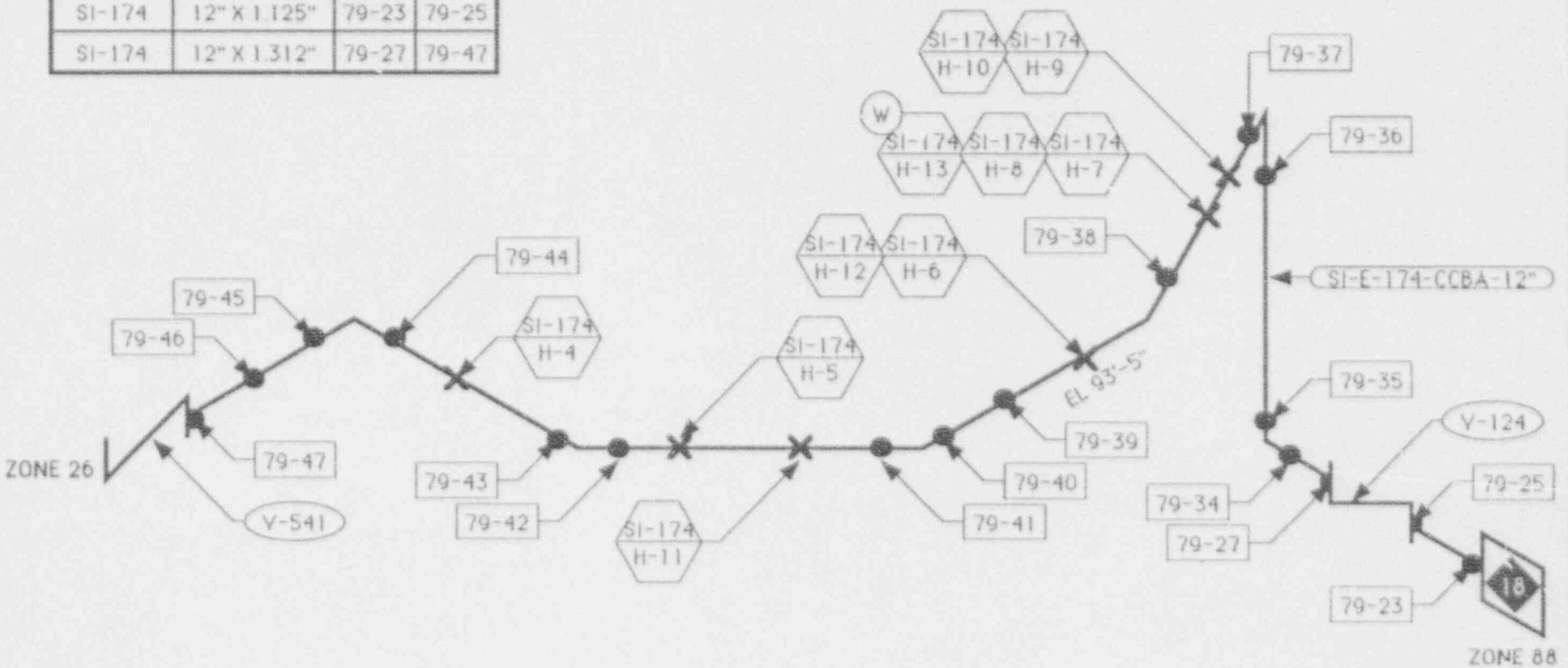
UNIT 1	ZONE 97
CONTAINMENT LPSI HEADER TO LOOP 1B	
DRAWN BY: WJT	CHECKED BY: RLB	REV. 0

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



UNIT 1	ZONE 98
CONTAINMENT LPSI HEADER TO LOOP 2A	
DRAWN BY WJA	CHECKED BY RLB
REV. 0	

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:

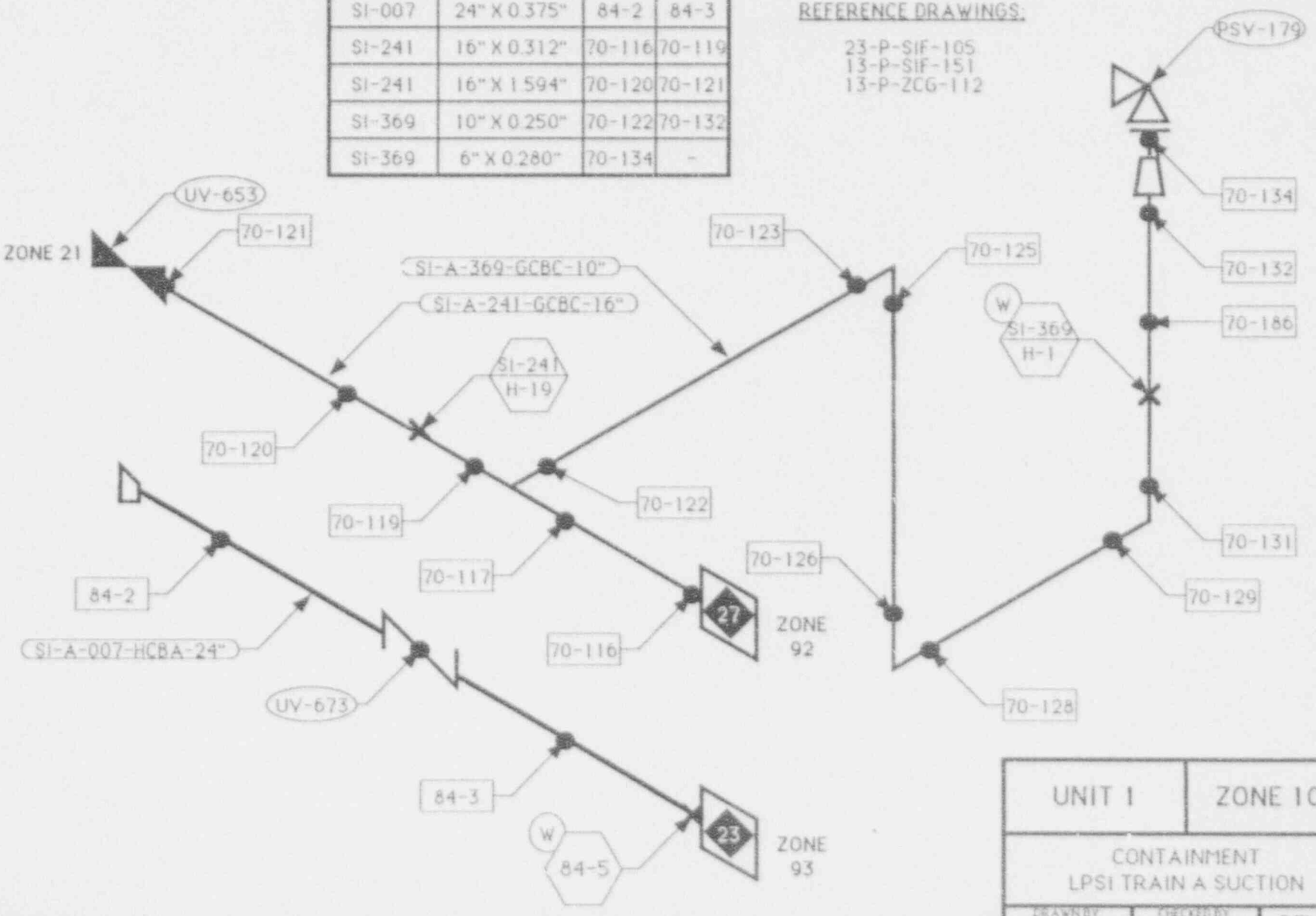
13-P-SIF-136

UNIT 1	ZONE 99
CONTAINMENT LPSI HEADER TO LOOP 2B	
DRAWN BY: WJ-4	CHECKED BY: RLB
REV. 0	

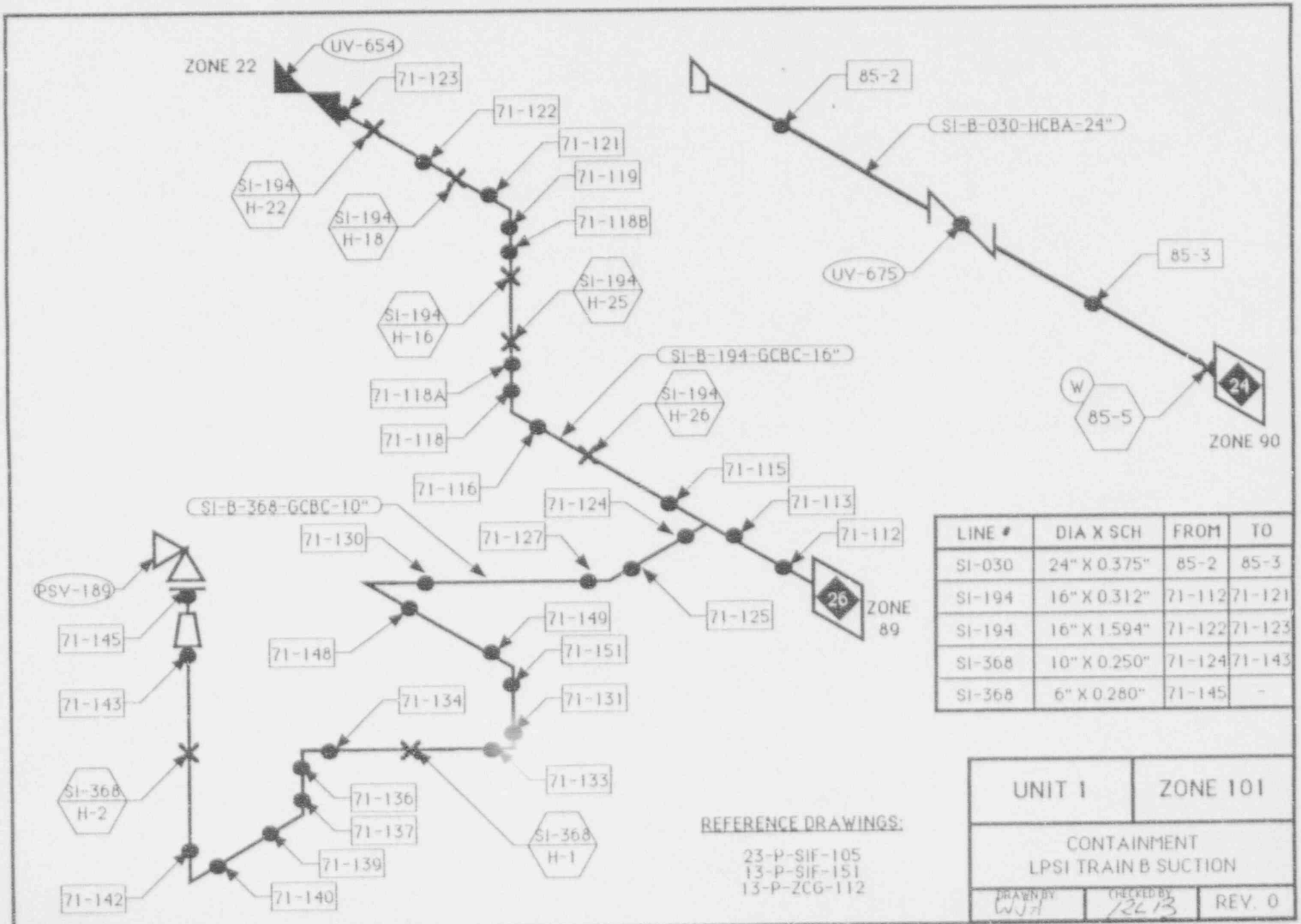
LINE #	DIA X SCH	FROM	TO
SI-007	24" X 0.375"	84-2	84-3
SI-241	16" X 0.312"	70-116	70-119
SI-241	16" X 1.594"	70-120	70-121
SI-369	10" X 0.250"	70-122	70-132
SI-369	6" X 0.280"	70-134	-

REFERENCE DRAWINGS:

23-P-SIF-105
13-P-SIF-151
13-P-ZCG-112



UNIT 1	ZONE 100
CONTAINMENT LPSI TRAIN A SUCTION	
DRAWN BY WJA	CHECKED BY RCB — REV. 0



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"	71-124	71-143
SI-368	6" X 0.280"	71-145	-

REFERENCE DRAWINGS:

23-P-SIF-105
13-P-SIF-151
13-P-ZCG-112

UNIT 1	ZONE 101
CONTAINMENT LPSI TRAIN B SUCTION	
DRAWN BY WJH	CHECKED BY 12/2/13 REV. 0