



**Department of Energy**

Idaho Operations Office  
West Valley Project Office  
P.O. Box 191  
West Valley, NY 14171

February 8, 1994

Mr. Gary C. Comfort  
Headquarters  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555

**SUBJECT:** Transmittal of Updated Information for the West Valley Demonstration Project  
Vitrification Facility NRC Readiness Notebook

- REFERENCE:**
- 1) Letter JJM:033:93 (1671:93:10), T. J. Rowland to G. C. Comfort, "Transmittal of the West Valley Demonstration Project (WVDP) Vitrification Facility Nuclear Regulatory Commission (NRC) Readiness Notebook, Volumes III - VI," dated September 20, 1993
  - 2) Letter JJM:022:93 (1671:93:10), T. J. Rowland to G. C. Comfort, "Transmittal of the West Valley Demonstration Project (WVDP) Vitrification Facility Nuclear Regulatory Commission (NRC) Readiness Notebook, Volume I and II," dated August 12, 1993

Dear Mr. Comfort:

West Valley Demonstration Project (WVDP) Vitrification operational readiness activities includes the development of the Vitrification Facility NRC: Readiness Notebook (Notebook) for the Nuclear Regulatory Commission (NRC). The purpose of the Notebook is ensure the NRC is provided with the necessary information to support their effort in assessing the operational readiness of radioactive vitrification operations at WVDP. References 1 and 2 delineates the overall strategy of the Notebook. Also, as discussed in the references, updates to the Notebook will be provided to the NRC periodically by the West Valley Project Office (WVPO). Enclosure B provides the revised schedule for anticipated release dates of updated information for the Notebook.

The WVPO is providing as an enclosure to this letter, updated documentation to be incorporated into the Notebook. In an effort to conserve time and resources, only the updated drawings in Volume 1 are being provided instead of replacing the entire two hundred drawings originally issued. Attachment A provides instructions for updating the Notebook.

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*Ltr. Encl.*

It is the WVPO's goal to ensure the NRC is provided with the necessary information in a timely manner to support their effort in assessing the operational readiness of radioactive vitrification operations at WVDP. If there are any question regarding this matter, contact J. J. May at (716) 942-2161 or W. S. Ketola at (716) 942-4314.

Sincerely,



T. J. Rowland, Director  
West Valley Project Office

- Enclosures:
- a) Instructions for Updating the Contents of the Vitrification Facility NRC Readiness Notebook Volume I (3 copies)
  - b) Vitrification Facility NRC Readiness Notebook Schedule (3 copies)
  - c) P&ID Drawing List and Drawings (3 copies)
  - d) General Arrangement Drawing List and Drawings (3 copies)

cc: J. Furia, NRC Region I, w/enc. (3 copies)  
T. W. McIntosh, EM-343, TREV II, w/enc. (1 copy)  
W. S. Ketola, WVPO, w/o enc.  
J. A. Yeazel, WVPO, w/o enc.  
F. W. Damerow, WVNS, MS 51, w/o enc.

JJM.004:94 - 0024.94:10

JJM/smn

Instructions for Updating the Contents of the  
Vitrification Facility NRC Readiness Notebook Volumes I, III

Attached you will find two drawing lists and two drawing packages. Please follow the instructions detailed below to update the Vitrification Facility NRC Readiness Notebook. Note that the vertical lines appearing to the left of the drawing number on the drawing list indicate the drawings to add or replace in your NRC Readiness Notebook.

In Section 1.2: P&IDs, of your NRC Notebook, replace the list of P&ID drawings, dated 11/22/93, with the attached list of drawings titled, Section 1.2: P&IDs, dated 1/04/94.

The drawings in your #1 package will go into this section behind the drawing list. Drawing numbers, names, and number of sheets per drawing are identified in the title block which appears on the bottom right corner of each drawing. Carefully match the drawing numbers (paying particular attention to the number of sheets per drawing) to the drawings in your NRC Notebook and replace each drawing with its updated version. Some drawings in this package are in addition to those issued in your original notebook and should be added in the sequence indicated on the drawing list.

In Section 1.3: General Arrangements, of your NRC Notebook, replace the list of General Arrangement drawings, dated 10/22/93, with the attached list of drawings titled, Section 1.3: General Arrangements, dated 1/04/94.

The drawings in your #2 package will go into this section behind the drawing list. Replace or add the drawings as described above. Some drawings in this package are in addition to those issued in your original notebook and should be added in the sequence indicated on the drawing list.

After you have completed adding and replacing drawings, you may wish to compare the drawing list included in the front of Sections 1.2: P&IDs and 1.3: General Arrangements to the actual order of drawings in your NRC Notebook.

# Vitrification Facility NRC Readiness Notebook

Attachment B  
CC:94:0002

SECTION	TITLE	DATE ANTICIPATED	PREVIOUS TRANSMITTALS
1.0	Design Information		
1.1	Process Flow Diagrams		
	Cold Chemical System	07/16/93	7/16/93
	Vitrification	06/30/94	
1.2	Process & Instrumentation Diagrams	07/16/93	11/30/93
1.3	General Arrangement Drawings		
1.3.1	Vitrification Facility	07/16/93	7/16/93
1.3.2	Tank Farm	07/16/93	7/16/93
1.3.3	High Level Waste Interim Storage (CPC & EDR)	07/16/93	7/16/93
1.3.4	Ex-Cell Off-Gas Areas of the 01-14 Building	07/16/93	7/16/93
1.4	System Descriptions		
1.4.1	High-Level Waste Vitrification Facilities Description	01/16/94	
1.4.2	55 - Sludge Mobilization and Transfer	TBD	
1.4.3	63G - Waste Header	07/16/93	7/16/93
1.4.4	63H - In-Cell Off-Gas and Vessel Vent	07/16/93	7/16/93
1.4.5	63I - Vitrification Main Process	11/01/93	
1.4.6	63J - Canister Decontamination	01/16/94	8/30/93
1.4.7	63K - In-Cell Remote Handling, Maintenance and Viewing	TBD	
1.4.8	63L - Canister Welding	06/15/94	
1.4.9	63M - Vitrification Load In & Load Out	TBD	
1.4.10	63P - Vitrification Process Chemistry	TBD	
1.4.11	63CW - Vitrification Cooling Tower Water	02/28/94	
1.4.12	63DV - Vitrification Drain, Waste, Vent (Sanitary)	TBD	
1.4.13	63DW - Vitrification Demineralized Water	11/01/93	11/30/93
1.4.14	63ED - Vitrification Electric Power Distribution	04/30/94	
1.4.15	63FO - Fuel Oil	09/30/94	
1.4.16	63FP - Fire Detection and Protection	11/01/93	
1.4.17	63IA - Vitrification Instrument Air	12/01/93	
1.4.18	63PW - Vitrification Potable Water	11/01/93	
1.4.19	63SC - Vitrification Steam and Condensate	01/31/94	
1.4.20	63UA - Vitrification Utility Air	12/01/93	
1.4.21	63UW - Vitrification Utility Water	11/01/93	8/30/93
1.4.22	63VH - Vitrification Vent Header	TBD	
1.4.23	63WW - Vitrification Drains	01/31/94	
1.4.24	64 - Vitrification Ex-Cell Off-Gas	01/31/94	
1.4.25	65 - Vitrification Cold Chemical	11/01/93	
1.4.26	66 - Vitrification Closed Loop Cooling Water	11/01/93	8/30/93
1.4.27	67 - Vitrification HVAC	TBD	
1.4.28	68 - High-Level Waste Interim Storage	TBD	
1.4.29	69A - Vitrification Sampling	TBD	
1.4.30	69B - Vitrification Sample Transfer	01/16/94	
1.4.31	90 - Analytical and Environmental Laboratory	TBD	
1.4.32	200A - Instrumentation Hardware	TBD	
1.4.33	200B - Instrumentation Software	TBD	
2.0	Operational Readiness Review (ORR)		
2.1	ORR Plan	07/30/93	7/30/93
2.2	ORR Tree		
3.0	Readiness Logic		
3.1	Integrated Logic Diagram	07/30/93	7/30/93
4.0	Testing		
4.1	Test Program Plan (WVNS-TPL-63-001)	07/30/93	7/30/93
4.2	Overall Test Schedule	TBD	
4.3	Integrated Test Plan	TBD	
4.4	Performance Tests		
4.4.1	Specifications	Per Test Plan	
4.4.2	Reports	Per Test Plan	

Note: Shaded sections have been previously transmitted or are included with this transmission.

Rev. 01/05/94

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900-D-2318 Sht:001 Rev:009 Title: Waste Mobil. Pump P&ID 8D-1-M6

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900-D-2318 Sht:002 Rev:007 Title: Waste Mobil Pump P&ID 8D-1-M4

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900-D-2318 Sht:003 Rev:006 Title: Waste Mobil Pump P&ID 8D-1-M3

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900-D-2318 Sht:004 Rev:006 Title: Waste Mobil Pump P&ID 8D-1-M2

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900-D-2318 Sht:005 Rev:006 Title: Waste Mobil Pump P&ID 8D-1-M1

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900-D-2318 Sht:006 Rev:006 Title: Waste Mobil Pump P&ID 8D-2-M6

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900-D-2318 Sht:007 Rev:006 Title: Waste Mobil Pump P&ID 8D-2-M5

---

900-D-2318 Sht:008 Rev:007 Title: Waste Mobil Pump P&ID 8D-2-M3

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900-D-2318 Sht:009 Rev:006 Title: Waste Mobil Pump P&ID 8D-2-M2

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900-D-2318 Sht:010 Rev:008 Title: Waste Mobil Pump P&ID 8D-2-M1

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900-D-2731 Sht:001 Rev:002 Title: VF STACK SAMPLING SYSTEM P AND ID

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900-D-2803 Sht:001 Rev:000 Title: Cold Chemical building H&V air flow diagram and P&ID

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900-D-4072 Sht:001 Rev:000 Title: WTF INTERIM CHEM. & SLUDGE WASH WATER ADD. SYS P&ID

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900-D-4525 Sht:001 Rev:003 Title: WTF INTERIM CHEM & SLUDGE WASH WATER ADDITION SYS P&ID

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900-E-705 Sht:01A Rev:005 Title: CTS ABB & LEGEND PROCESS & INSTRUM DIA

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900-E-705 Sht:01B Rev:000 Title: JET CONTROL

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900-E-705 Sht:01C Rev:000 Title: JET CONTROL

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900-E-705	Sht.01D	Rev:000	Title: MFHT BUBBLER CONTROL
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900-E-705	Sht.01E	Rev:000	Title: CPMT BUBBLER CONTROL
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900-E-705	Sht.01F	Rev:000	Title: INDEX VIT & 01/14
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900-E-705	Sht.002	Rev:017	Title: CTS concentrator feed makeup tk. 63 v001 P&ID
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900-E-705	Sht.003	Rev:014	Title: CTS melter feed hold tk 63 v011 P&ID
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900-E-705	Sht.004	Rev:013	Title: CTS waste header V-045 vit. cell P&ID
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900-E-705	Sht.005	Rev:008	Title: CTS - ADS sample pump & P&ID
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900-E-705	Sht.006	Rev:010	Title: CTS fht ads pump 63g011 P&ID
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900-E-705	Sht.007	Rev:011	Title: CTS INTERNAL MELTER THERMOCOUPLES
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900-E-705	Sht.008	Rev:013	Title: CTS MELTER COOLING SYSTEM
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900-E-705	Sht.009	Rev:018	Title: CTS MELTER PNEUMATIC INSTRUMENTATION
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900-E-705	Sht.010	Rev:012	Title: CTS MELTER AND HEATER POWER SUPPLY AND CONTROLS
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900-E-705	Sht.011	Rev:012	Title: SAMPLER FOR V001 & V011 PROCESS & INSTR. DIA.
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900-E-705	Sht.012	Rev:014	Title: CTS TURNTABLE
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900-E-705	Sht.014	Rev:016	Title: CTS PRIMARY SCRUBBER SCRUB SECTION
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900-E-705	Sht.015	Rev:014	Title: CTS PRIMARY SCRUBBER RECEIVER TANK
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900-E-705	Sht.016	Rev:004	Title: CTS GLASS LEVEL DETECTOR SYSTEM
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900-E-705	Sht:019	Rev:013	Title: CTS VESSEL VENT SYSTEM
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900-E-705	Sht:021	Rev:011	Title: CTS melt off gas sys preheater & hemes P&ID
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900-E-705	Sht:022	Rev:016	Title: CTS vessel off gas filters & heaters P&ID
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900-E-705	Sht:023	Rev:010	Title: caister decontamination Tank 63-V-044 P&ID
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900-E-705	Sht:024	Rev:007	Title: CTS-MAINTENANCE & CAPPING STATION P&ID
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900-E-705	Sht:025	Rev:004	Title: Ex-Cell Vent Header P&ID
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903-D-013	Sht:001	Rev:006	Title: P&ID STS UTILITY WATER SYSTEM
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903-D-014	Sht:001	Rev:015	Title: P&ID STS UTILITY & INSTRUMENT AIR
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903-D-014	Sht:002	Rev:010	Title: STS P&ID (V&S Bldg) UTILITY & INST. AIR
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903-D-016	Sht:001	Rev:015	Title: STS P&ID FILTRATION & COOLING SECTION
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903-D-017	Sht:001	Rev:011	Title: STS P&ID ION EXCHANGE SECTION SHEET 1
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903-D-018	Sht:001	Rev:011	Title: STS P&ID ION EXCHANGE SECTION SHEET 2
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903-D-019	Sht:001	Rev:013	Title: STS P&ID FINAL FILTRATION & STORAGE
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903-D-020	Sht:001	Rev:011	Title: STS P&ID ZEOLITE FILL & SLUICE SECTION
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903-D-021	Sht:001	Rev:009	Title: STS P&ID VENTING/CHILLER SECTION
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904-D-011	Sht:001	Rev:008	Title: P&ID sludge mobilization sys. 8Q-4Pit
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904-D-012	Sht:001	Rev:008	Title: P&ID Sludge mobilization system 8Q-1 pit
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904-D-013	Sht:001	Rev:009	Title: P&ID Sludge Mobilization system 8Q-2 pit
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904-D-014	Sht:001	Rev:008	Title: P&ID sludge mobilization system 8Q-5 pit
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904-D-015	Sht:001	Rev:008	Title: P&ID sludge mobilization sys utility water/chemical system and seal water systems
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904-D-016	Sht:001	Rev:004	Title: P&ID sludge mobilization system utility air system
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905-D-010	Sht:001	Rev:001	Title: VF SHIELDING GAS & ARGON GAS SYSTEM P&ID
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905-D-011	Sht:001	Rev:009	Title: P&ID Vitrification Drainage system high level
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905-D-015	Sht:001	Rev:014	Title: P&ID COLD CHEMICAL PREPARATION & FEED SYSTEM
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905-D-016	Sht:001	Rev:013	Title: P&ID COLD CHEMICAL PREPARATION & FEED SYSTEM
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905-D-017	Sht:001	Rev:015	Title: P&ID COLD CHEMICAL PREPARATION & FEED SYSTEM
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905-D-018	Sht:001	Rev:010	Title: P&ID COLD CHEMICAL PREPARATION & FEED SYSTEM
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905-D-019	Sht:001	Rev:007	Title: P&ID COLD CHEMICAL STEAM & CONDENSATE SYSTEM
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905-D-020	Sht:001	Rev:010	Title: P&ID COLD CHEMICAL UTILITY & INSTRUMENT AIR
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905-D-021	Sht:001	Rev:010	Title: P&ID COLD CHEMICAL WATER SYSTEMS
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905-D-022	Sht:001	Rev:006	Title: P&ID COLD CHEMICAL ACID & CAUSTIC SYSTEMS
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905-D-023	Sht:001	Rev:012	Title: P&ID diesel fuel oil transfer system
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905-D-024	Sht:001	Rev:005	Title: P&ID COLD CHEMICAL FIRE PROTECTION
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905-D-025	Sht:001	Rev:004	Title: P&ID secondary filter, diesel gen & crane maintenance room
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905-D-026 Sht:001 Rev:003 Title: P&ID Vitrification facility utility water system

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905-D-027 Sht:001 Rev:004 Title: P&ID vitrification facility non rack cold chemical decon system

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905-D-028 Sht:001 Rev:004 Title: P&ID vitrification facility steam system

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905-D-029 Sht:001 Rev:011 Title: P&ID vitrification facility instrument & utility air sys

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905-D-044 Sht:001 Rev:001 Title: VF SFR & CMR HIGH PRESSURE AIR SYSTEM P&ID

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905-D-045 Sht:001 Rev:004 Title: P&ID Vitrification facility instrument rack 3W2-1A

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905-D-045 Sht:002 Rev:005 Title: P&ID Vitrification facility instrument rack 3E8-7A

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905-D-045 Sht:003 Rev:005 Title: P&ID Vitrification facility instrument rack 2N7-6

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905-D-045 Sht:004 Rev:004 Title: P&ID Vitrification facility instrument rack 2N6-5

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905-D-045 Sht:005 Rev:004 Title: P&ID Vitrification facility

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905-D-045 Sht:006 Rev:004 Title: P&ID Vitrification facility instrument rack 2E9-8

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905-D-045 Sht:007 Rev:002 Title: P&ID Vitrification Facility instrument rack 2W3-2

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905-D-045 Sht:008 Rev:003 Title: P&ID Vitrification facility instrument rack 3E9-7B

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905-D-045 Sht:009 Rev:005 Title: P&ID Vitrification facility instrument rack 3W7

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905-D-045 Sht:010 Rev:006 Title: P&ID Vitrification facility instrument rack 2N8

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905-D-045 Sht:011 Rev:007 Title: P&ID Vitrification facility instrument rack 3W4

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905-D-045 Sht:012 Rev:006 Title: P&ID Vitrification facility instrument rack 3W5 sheet 1

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905-D-045	Sht:013	Rev:006	Title: P&ID Vitrification facility instrument rack 3W6
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905-D-045	Sht:014	Rev:003	Title: P&ID Vitrification facility instrument rack 3W3
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905-D-045	Sht:015	Rev:002	Title: P&ID Vitrification facility instrument rack 3W1
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905-D-045	Sht:016	Rev:005	Title: P&ID Vitrification facility instrument rack 2W4
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905-D-045	Sht:017	Rev:003	Title: P&ID Vitrification facility instrument rack 2W5
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905-D-045	Sht:018	Rev:004	Title: P&ID Vitrification facility instrument rack 3E10
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905-D-045	Sht:019	Rev:001	Title: P&ID Vitrification facility instrument rack 2E10
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905-D-045	Sht:020	Rev:004	Title: P&ID Vitrification facility instrument rack 3W5 Sheet 2
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905-D-046	Sht:001	Rev:021	Title: P&ID vitrification facility utility air system
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905-D-046	Sht:002	Rev:009	Title: P&ID vitrification facility instrument air system
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905-D-046	Sht:003	Rev:009	Title: P&ID vitrification facility instrument air system
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905-D-046	Sht:004	Rev:001	Title: VF P&ID UTILITY AIR SYSTEM
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905-D-047	Sht:001	Rev:011	Title: P&ID vitrification facility steam system
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905-D-047	Sht:002	Rev:012	Title: P&ID vitrification facility condensate system
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905-D-047	Sht:003	Rev:010	Title: P&ID vitrification facility steam system
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905-D-048	Sht:001	Rev:008	Title: P&ID vitrification facility utility water system
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905-D-048	Sht:002	Rev:010	Title: P&ID vitrification facility demineralized water system
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905-D-049	Sht:001	Rev:003	Title: P&ID vitrification facility fire protection systems
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905-D-050	Sht:001	Rev:007	Title: P&ID vitrification drainage system low level
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905-D-051	Sht:001	Rev:009	Title: P&ID vitrification facility potable water system
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905-D-052	Sht:001	Rev:008	Title: Vitrification facility closed loop cooling water system P&ID
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905-D-052	Sht:002	Rev:011	Title: Vitrification facility closed loop cooling water system P&ID
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905-D-053	Sht:001	Rev:005	Title: P&ID vitrification facility non rack cold chem. decon & slurry system
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905-D-053	Sht:002	Rev:007	Title: P&ID vitrification facility non rack cold chem decon & slurry system
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905-D-054	Sht:001	Rev:010	Title: P&ID vitrification facility cooling tower water system
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905-D-055	Sht:001	Rev:001	Title: VOID PER ECN P&ID vitrification facility off gas condensate system
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905-D-056	Sht:001	Rev:006	Title: P&ID vitrification facility vent header system
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905-D-057	Sht:001	Rev:004	Title: Vitrification Rest Rooms P&ID
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905-D-058	Sht:001	Rev:003	Title: PNEUMATIC SAMPLE TRANSFER SYSTEM P&ID
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905-D-058	Sht:002	Rev:000	Title: PNEUMATIC SAMPLE TRANSFER SYSTEM P&ID
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905-D-450	Sht:001	Rev:005	Title: HVAC air flow diagram vitrification facility
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905-D-451	Sht:001	Rev:005	Title: HVAC air flow diagram & P&ID control room
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905-D-452	Sht:001	Rev:013	Title: HVAC P&ID vitrification facility
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905-D-452	Sht:002	Rev:009	Title: HVAC P&ID vitrification facility
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905-D-452	Sht:003	Rev:004	Title: VS HVAC P&ID VITRIFICATION FACILITY
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905-D-453	Sht:001	Rev:008	Title: Vitrification facility HVAC chilled water system P&ID sh 1
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905-D-453	Sht:002	Rev:001	Title: Vitrification facility HVAC chilled water system P&ID sh 3
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905-D-454	Sht:001	Rev:006	Title: Vitrification facility HVAC chilled water P&ID sh 2
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905-E-045	Sht:021	Rev:003	Title: P&ID VITRIFICATION FACILITY INSTRUMENT RACK 3WS
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906-D-009	Sht:001	Rev:001	Title: VF EX-CELL OFF-GAS MISCELLANEOUS UTILITIES P&ID
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906-D-014	Sht:001	Rev:004	Title: VF MELTER OFF-GAS P&ID MELTER EX CELL OFF GAS SYSTEM
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906-D-015	Sht:001	Rev:005	Title: VF MELTER OFF-GAS P&ID MELTER EX CELL OFF GAS SYSTEM
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906-D-018	Sht:001	Rev:005	Title: VF MELTER OFF-GAS HVAC AIR FLOW DIAGRAM & P&ID
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906-D-019	Sht:001	Rev:001	Title: VOID PER RCN VF MELTER OFF-GAS HVAC AIR FLOW DIAGRAM & P&ID
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906-D-025	Sht:001	Rev:007	Title: VF MELTER OFF-GAS P&ID INSTRUMENT RACK 01
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906-D-026	Sht:001	Rev:006	Title: VF MELTER OFF-GAS P&ID INSTRUMENT RACK 02
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906-D-027	Sht:001	Rev:006	Title: VF MELTER OFF-GAS P&ID INSTRUMENT RACK 02
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906-D-028	Sht:001	Rev:006	Title: VF MELTER OFF-GAS P&ID INSTRUMENT RACK 02
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906-E-011	Sht:001	Rev:007	Title: VF MELTER OFF-GAS P&ID MELTER EX CELL OFF GAS SYSTEM
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906-E-012	Sht:001	Rev:008	Title: VF MELTER OFF-GAS P&ID MELTER EX CELL OFF GAS SYSTEM
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906-E-012	Sht:002	Rev:001	Title: VF P&ID MELTER EX-CELL OFF-GAS SYS
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906-E-013 Sht:001 Rev:008 Title: VF MELTER OFF-GAS P&ID MELTER EX CELL OFF GAS SYSTEM

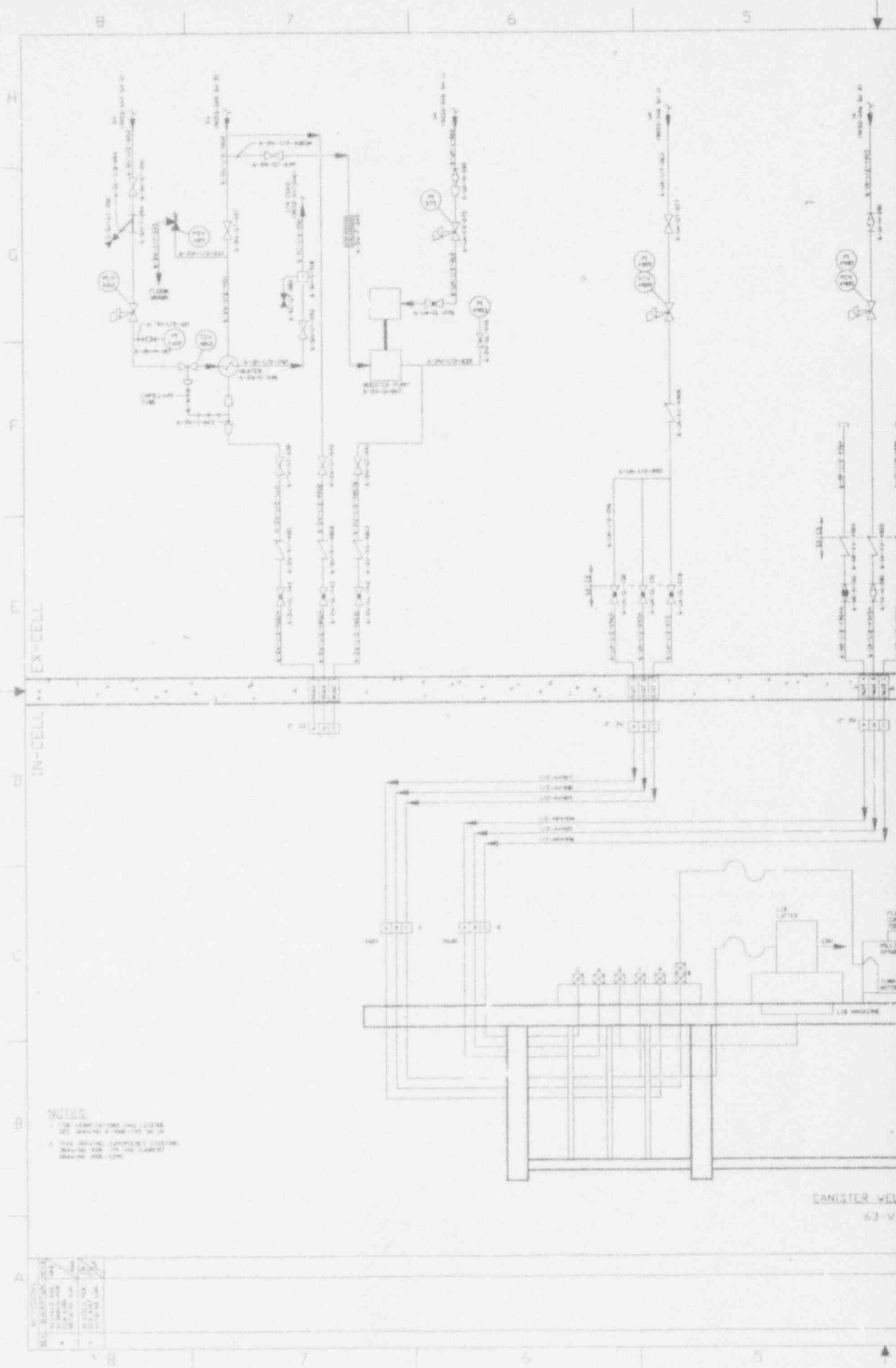
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906-E-016 Sht:001 Rev:006 Title: VF MELTER OFF-GAS P&ID INSTRUMENT AIR

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906-E-017 Sht:001 Rev:001 Title: VF P&ID OFF-GAS TRENCH

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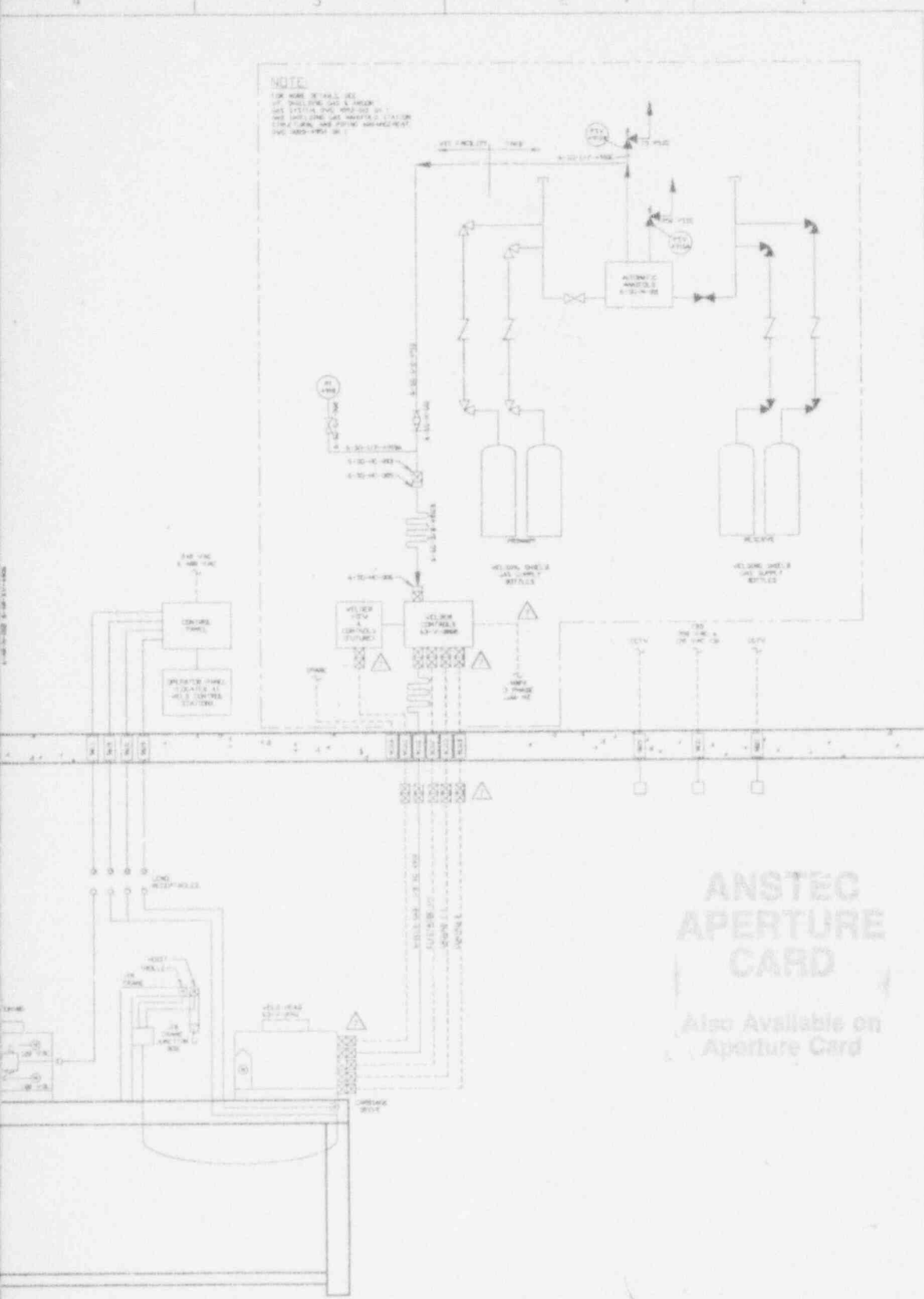


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REV.	DESCRIPTION	DATE
1	ISSUED FOR CONSTRUCTION	10/1/68
2	REVISED TO SHOW PUMP	10/1/68
3	REVISED TO SHOW TANK	10/1/68
4	REVISED TO SHOW VALVES	10/1/68
5	REVISED TO SHOW PIPING	10/1/68
6	REVISED TO SHOW INSTRUMENTATION	10/1/68
7	REVISED TO SHOW ELECTRICAL	10/1/68
8	REVISED TO SHOW MECHANICAL	10/1/68
9	REVISED TO SHOW MATERIALS	10/1/68
10	REVISED TO SHOW FINISHES	10/1/68

CANISTER WEL  
 63-V

NOTE:  
 FOR MORE DETAIL SEE  
 WELDING GAS & FLOW  
 AND FLOWING GAS SYSTEMS IN  
 THE WELDING GAS MANIPULATION  
 CONTROL AND FLOW MANAGEMENT  
 AND WELDING GAS



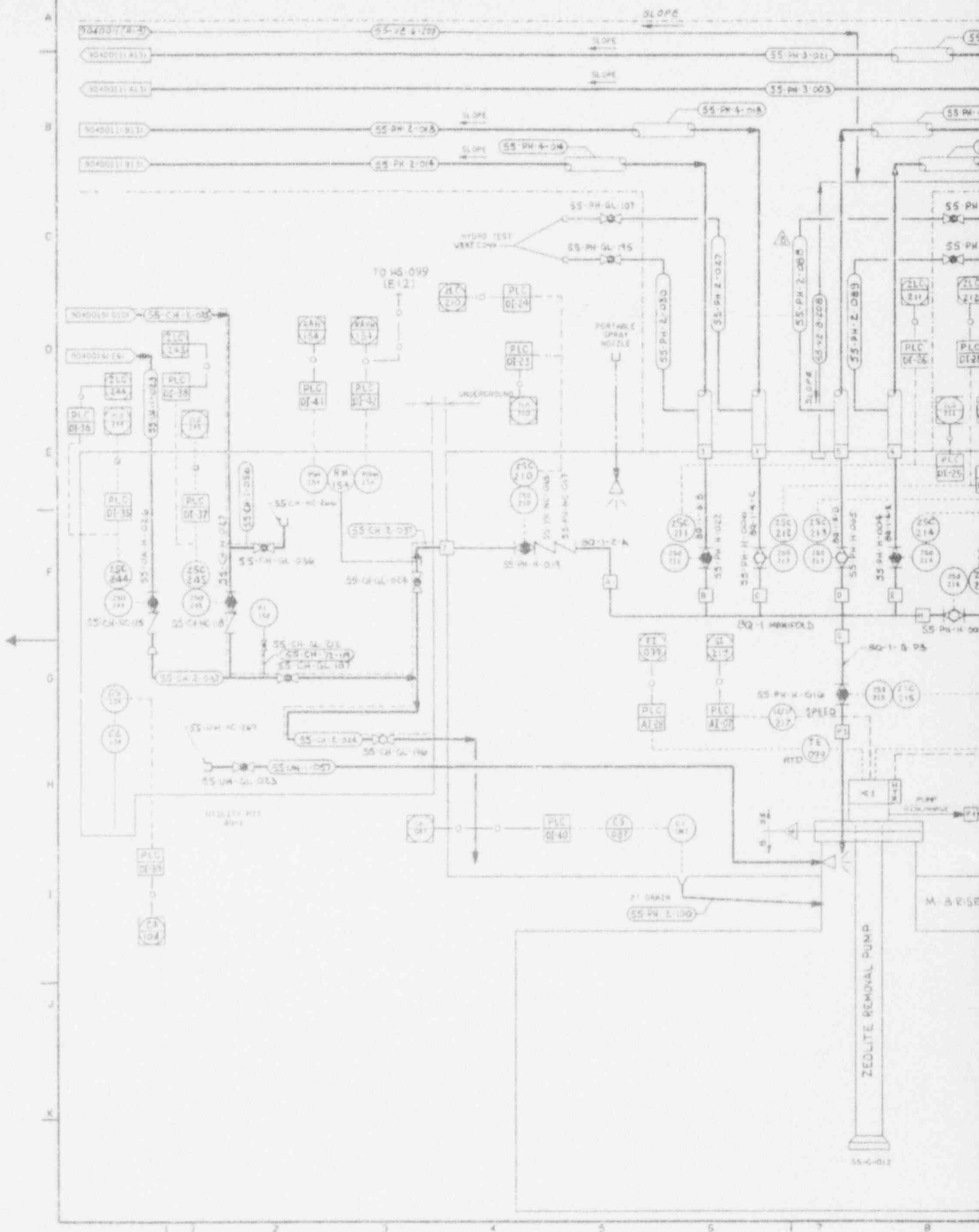
**ANSTEC  
 APERTURE  
 CARD**  
 Also Available on  
 Aperture Card

**CAUTION**  
 CURRENT AS OF  
 10/17/88  
 CHECK DOCUMENT CONTROL  
 FOR LATEST REVISION.

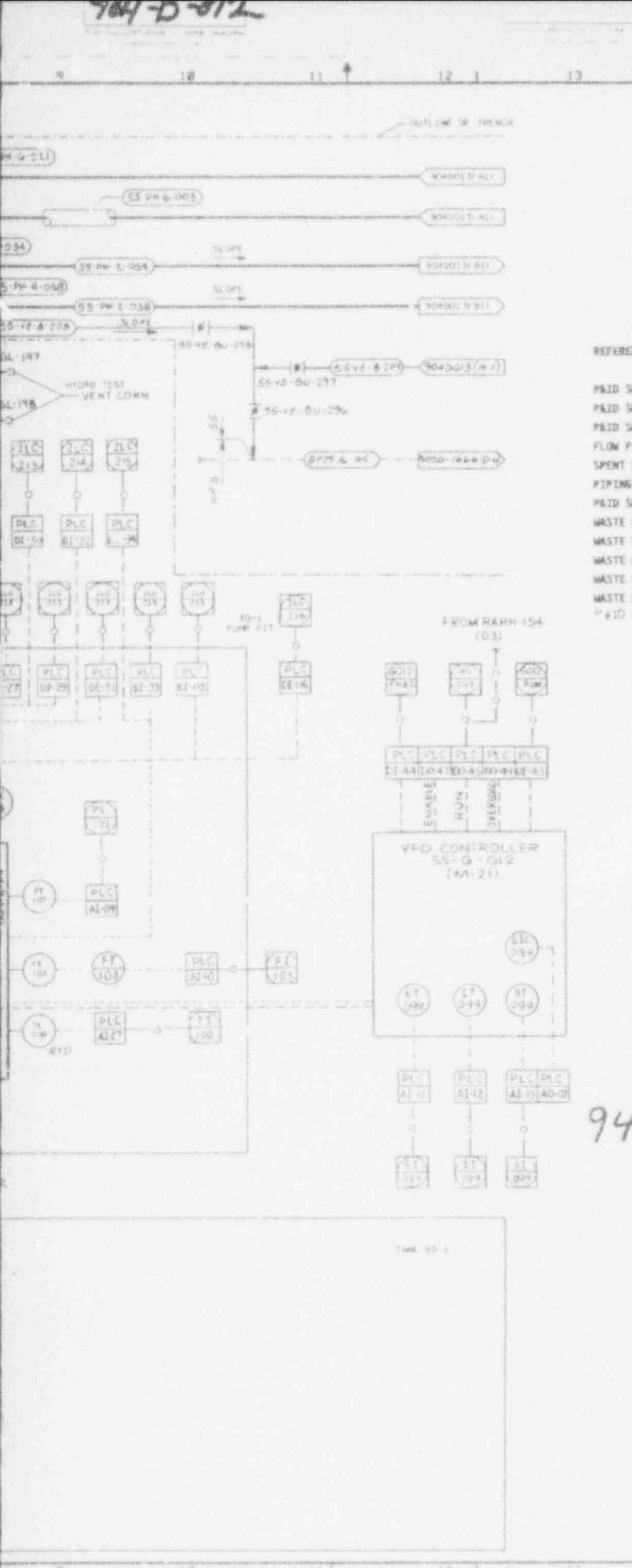
SYMBOL	DESCRIPTION	DATE	BY	REVISION
1	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	1
2	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	2
3	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	3
4	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	4
5	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	5
6	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	6
7	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	7
8	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	8
9	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	9
10	WELDING GAS MANIPULATION CONTROL AND FLOW MANAGEMENT	10/17/88	J. J. [unclear]	10

9403140323-01

904-0-012 C







NO.	DATE	REVISION	DR	CH	APPROVED
3	10-10-93		KXL	KFK	KXL KFK
GENERAL REVISION					
1	2-21-92		KFK	KFK	KFK
GENERAL REVISION					
0	3/1/92	REV 101			
7	12-14-92	GEN REV/ECN 5685	PD	AS	AS
8	12-2-93	REV PER ECN 7099	PD	AS	AS
3	7-5-92	REV PER ECN 5225	PD	AS	AS
4	7-21-92	REV PER ECN 5724	JH	AS	AS
5	8-8-92	REV PER ECN 5234	AS	AS	AS
6	10-21-92	REV PER ECN 5589	CW	AS	AS

REFERENCE DRAWINGS:

- P&ID SMS 80-4 PIT 9040-011
- P&ID SMS 80-2 PIT 9040-013
- P&ID SMS CHEM. U.W. & SEAL WTR. SYS. 9040-015
- FLOW PIPING & INST. DIAG. WASTE TANK FARM
- SPENT FUEL REPROCESSING PLANT
- PIPING & INST. DIA. CON. ED. WASTE BR-A-1
- P&ID SMS UTILITY AIR SYSTEM 9040-014
- WASTE MOB. PUMP PROCESS & INSTR. DIA. 80-1-M6 9000-2318, SH 1
- WASTE MOB. PUMP PROCESS & INSTR. DIA. 80-1-M4 9000-2318, SH 2
- WASTE MOB. PUMP PROCESS & INSTR. DIA. 80-1-M3 9000-2318, SH 3
- WASTE MOB. PUMP PROCESS & INSTR. DIA. 80-1-M2 9000-2318, SH 4
- WASTE MOB. PUMP PROCESS & INSTR. DIA. 80-1-M1 9000-2318, SH 5
- P&ID STS PERMANENT VENTILATION SYSTEM 9000-1666

NOTES:

1. FOR NOTES SEE DWG. 9040-011
2. FOR EXISTING TANK 80-1 EQUIPMENT SEE DWG. BR-A-1 P&ID
3. —○—○— SOFTWARE OR DATA LINK SIGNAL

**ANSTEC APERTURE CARD**

Also Available on Aperture Card

9403140323-02

WVNS APPROVAL

COG MGR *[Signature]*

COG ENGR *[Signature]*

DRFT SUPR *[Signature]*

D.A. MGR *[Signature]*

R.S. MGR *[Signature]*

TRNG MGR *[Signature]*

FOR DRAWING INDEX SEE DRAWING NO.

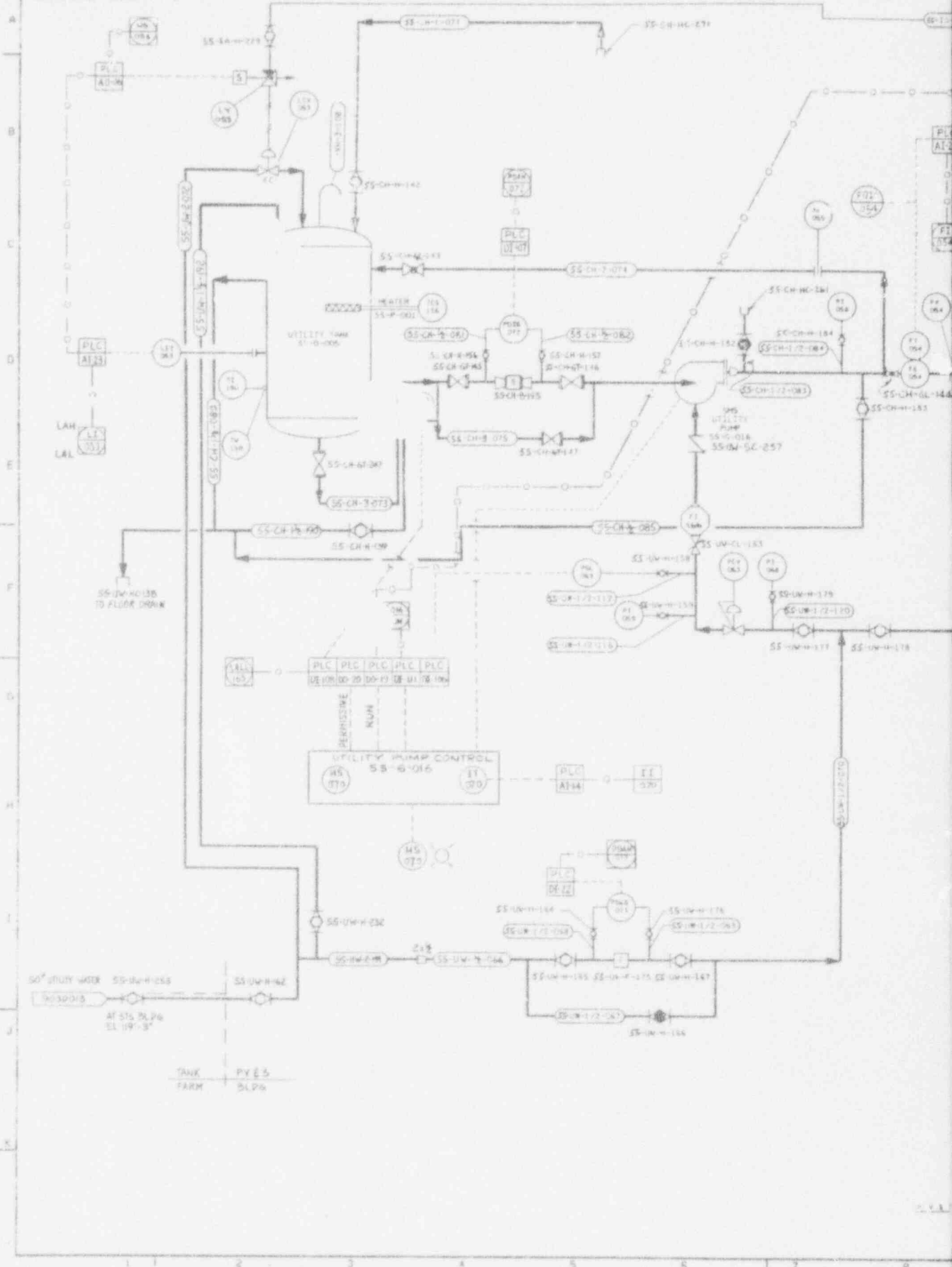
APPROV WVNS CO.	EBASCO SERVICES INCORPORATED
PROJECT MGR	AVE D.P.S. NO. 1388 TASK ORDER 015
ENGINEER SUPERVISOR	WEST VALLEY NUCLEAR SERVICES COMPANY, INC
LEAD DESIG ENGR	WEST VALLEY, NEW YORK
DESIGN	WEST VALLEY DEMONSTRATION PROJECT
CHECKED	P & ID
DRAWN	SLUDGE MOBILIZATION SYSTEM
ISSUED FOR CONSTRUCTION	80-1 PIT
PROJECT NO.	DRAWING NO.
9403140323	904D-012
ISSUED FOR CONSTRUCTION	SCALE
	3"=1'-0"

CAUTION

CURRENT AS OF

CHECK DOCUMENT CONTROL FOR LATEST REVISION

904-D-015 C



SS-UM-12-138 TO FLOOR DRAIN

UTILITY PUMP CONTROL  
SS-6-016

50' STDY WATER SS-W-0-255  
AT STS SLP6  
EL 119'-3"

TANK FARM  
PYE5  
SLP6

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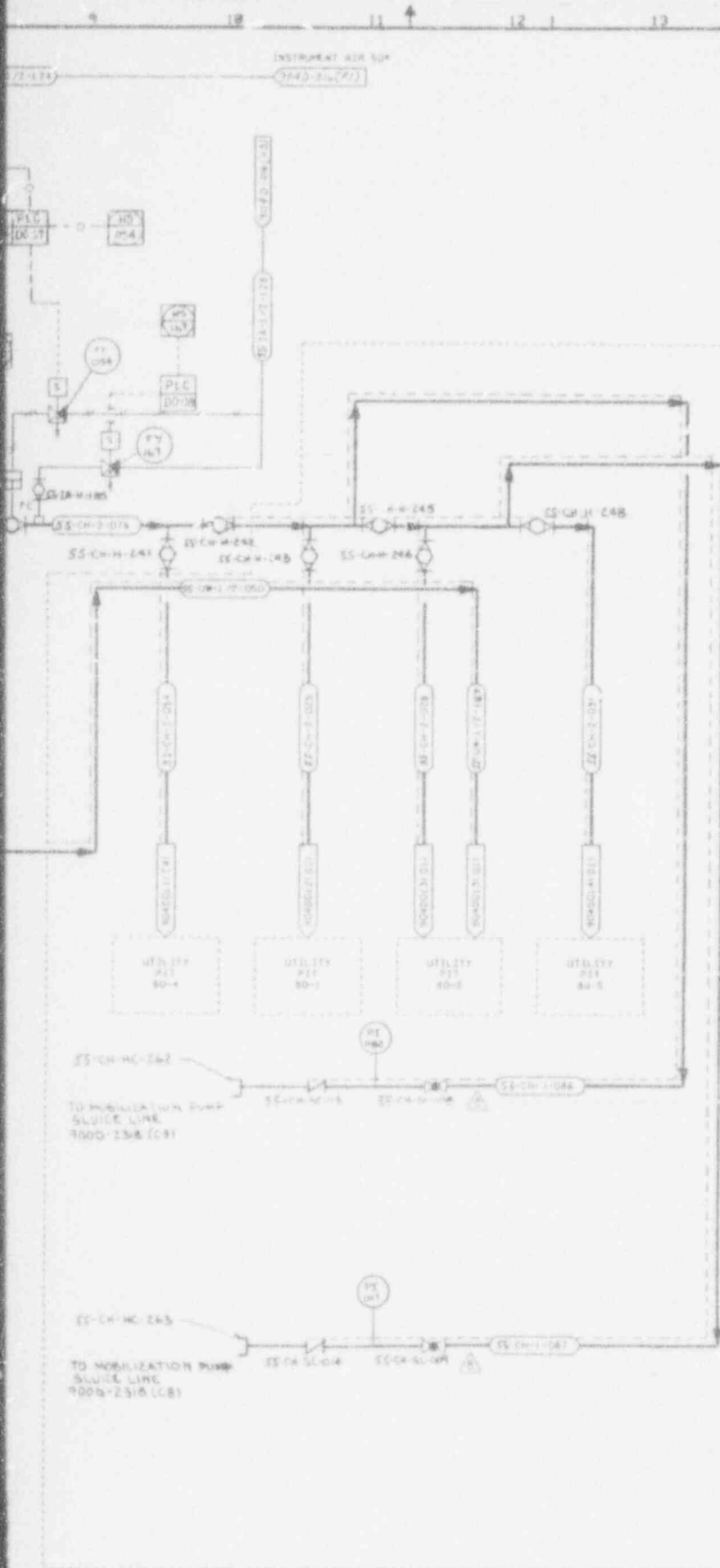
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NO.	DATE	REVISION	DR	CH	APPROVED
0	10-2-89	GENERAL REVISION			
1	2-21-90	GENERAL REVISION			
2	3-11-90	ER/BOT			
3	4-16-90	GEN REV PER ECN 5510			
4	11-5-90	REV PER ECN 4013			
5	12-10-91	GEN REV PER ECN 4639			
6	7-7-92	REV PER ECN 5225			
7	9-29-92	REV PER ECN 5523			
8	11-4-92	REV PER ECN 5627			
9	12-15-92	GEN REV PER ECN 5685			
10	12-2-92	REV/ECN 7099			

REFERENCE DRAWINGS:

- P&ID SMS 80-4-PIT 9040-011
- P&ID SMS 80-1-PIT 9040-012
- P&ID SMS 80-2-PIT 9040-013
- P&ID SMS 80-5-PIT 9040-014
- P&ID SMS UTILITY AIR SYSTEM 9040-016
- WASTE MOBILIZATION PUMP PROCESS INSTRUMENT DIAGRAM 9000-2318

NOTES:

1. FOR NOTES SEE DWG 9040-011
2. ---O---O--- SOFTWARE OR DATA LINK

**ANSTEC APERTURE CARD**

Also Available on Aperture Card

CAUTION

CHECK DOCUMENT CONTROL FOR LATEST REVISION

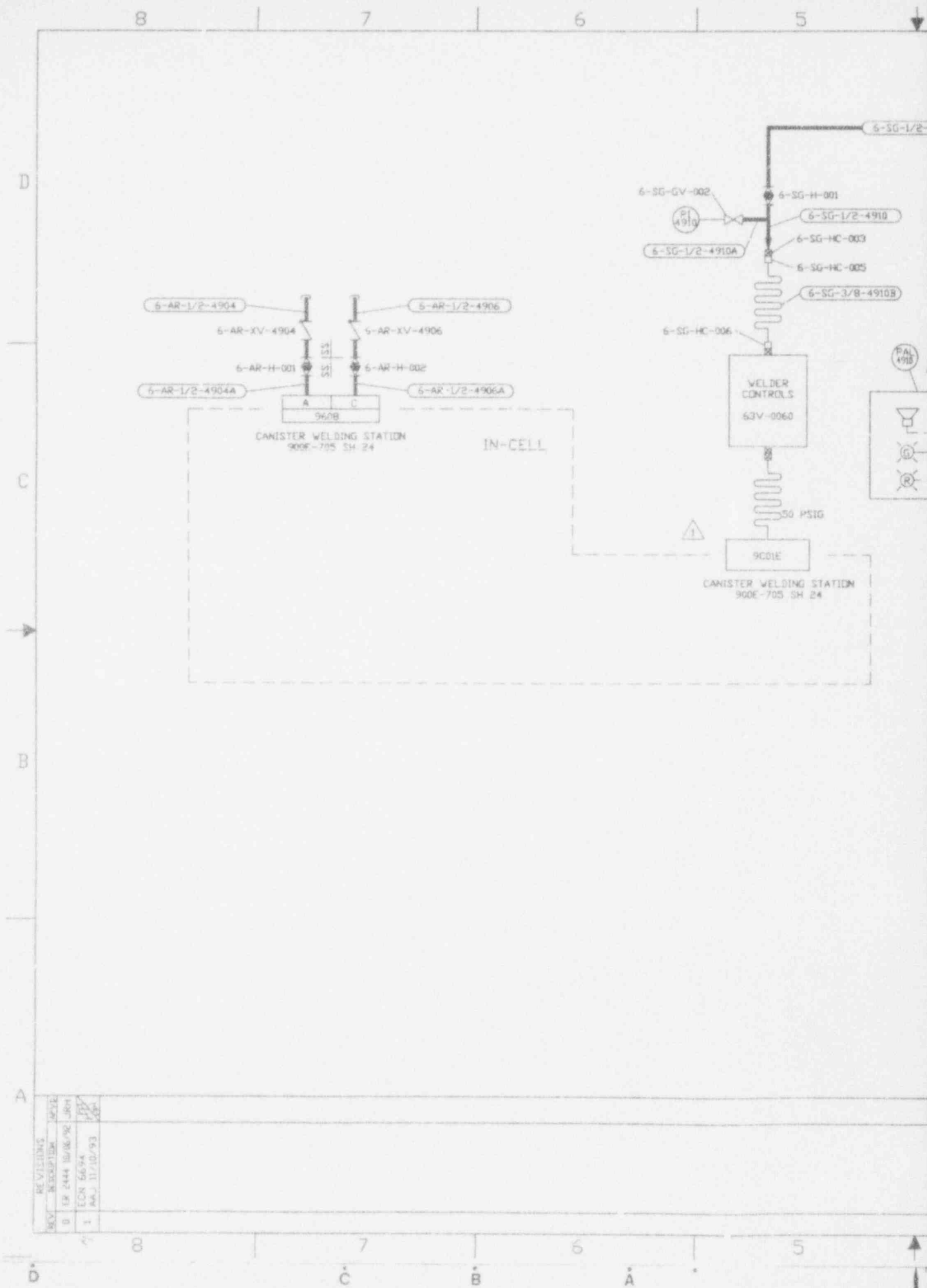
WVNS APPROVAL

LOG MGR	
COG ENGR	
DRFT SUPR	
D.A. MGR	
R & S MGR	
PROJ. MGR	

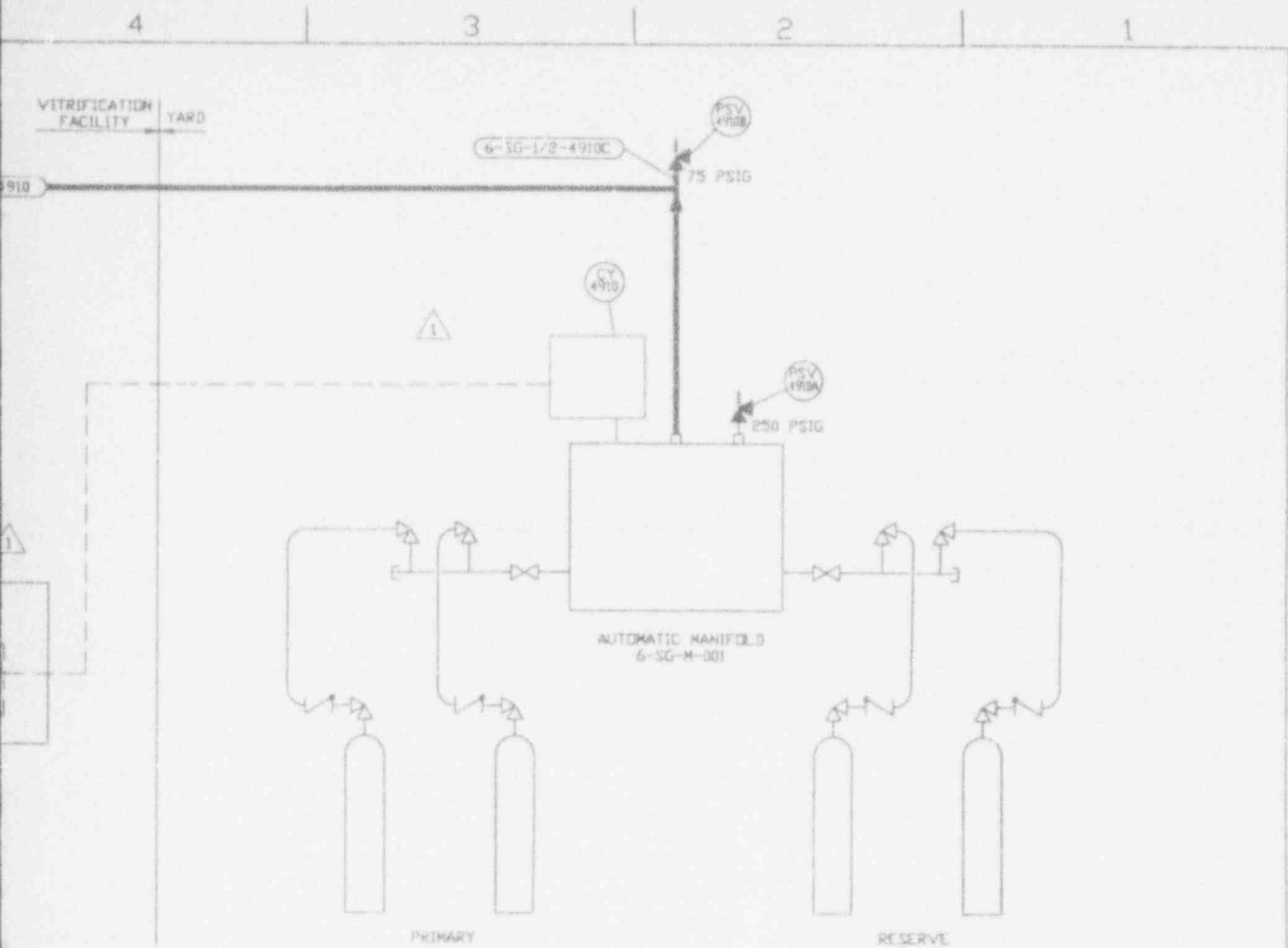
FOR DRAWING INDEX SEE DRAWING NO.

APPROVED WVNS CO.	EDASCO SERVICES INCORPORATED
PROJECT MGR	415 D.P.S. NO. 2388 TASK ORDER 013
ENGINEER SUPV	WEST VALLEY NUCLEAR SERVICES COMPANY, INC
LEAD DISC ENGR	WEST VALLEY, NEW YORK
DESIGN	WEST VALLEY DEMONSTRATION PROJECT
CHECKED	P & ID
DRAWN	SLUDGE MOBILIZATION SYSTEM
DATE	CHEMICAL, UTILITY WATER & SEAL WATER SYSTEMS
SCALE	
DRAWING NO.	904-D-015 8
SHEET NO.	904-D-015

9403140323-03



REV.	DESCRIPTION	DATE
B	EP 2444 10/08/92 JRM	
A	ECN 5654	
1	AAJ 11/10/93	



**ANSTEC  
APERTURE  
CARD**

Also Available on  
Aperture Card

REFERENCE DRAWING  
SYMBOLS, NOTES, LEGEND 900D-1006, 1307, 1308

9403140323-04

CAUTION  
CURRENT AS OF  
MAY 7 1994

CHECK THIS DRAWING FOR LATEST REVISION

CAD DRAWING-DO NOT REVISE THIS ORIGINAL

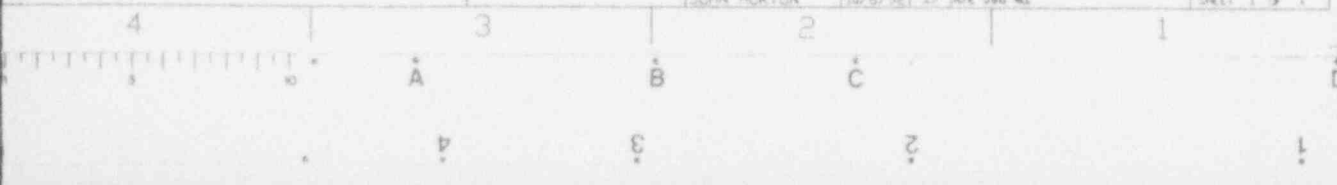
REV	DATE	DESCRIPTION	BY	CHKD
1	9/12/92	W. KOCH		
2	9/29/93	DONALD R. SHAFER		
3	9/29/93	PAUL A. NESTER		
4	9/29/93	D.J. RICKETTSON		
5	10/11/92	T. E. COTTRELL		
6	10/5/92	P. P. VILLEMS		
7	10/5/92	JOHN HORTON		

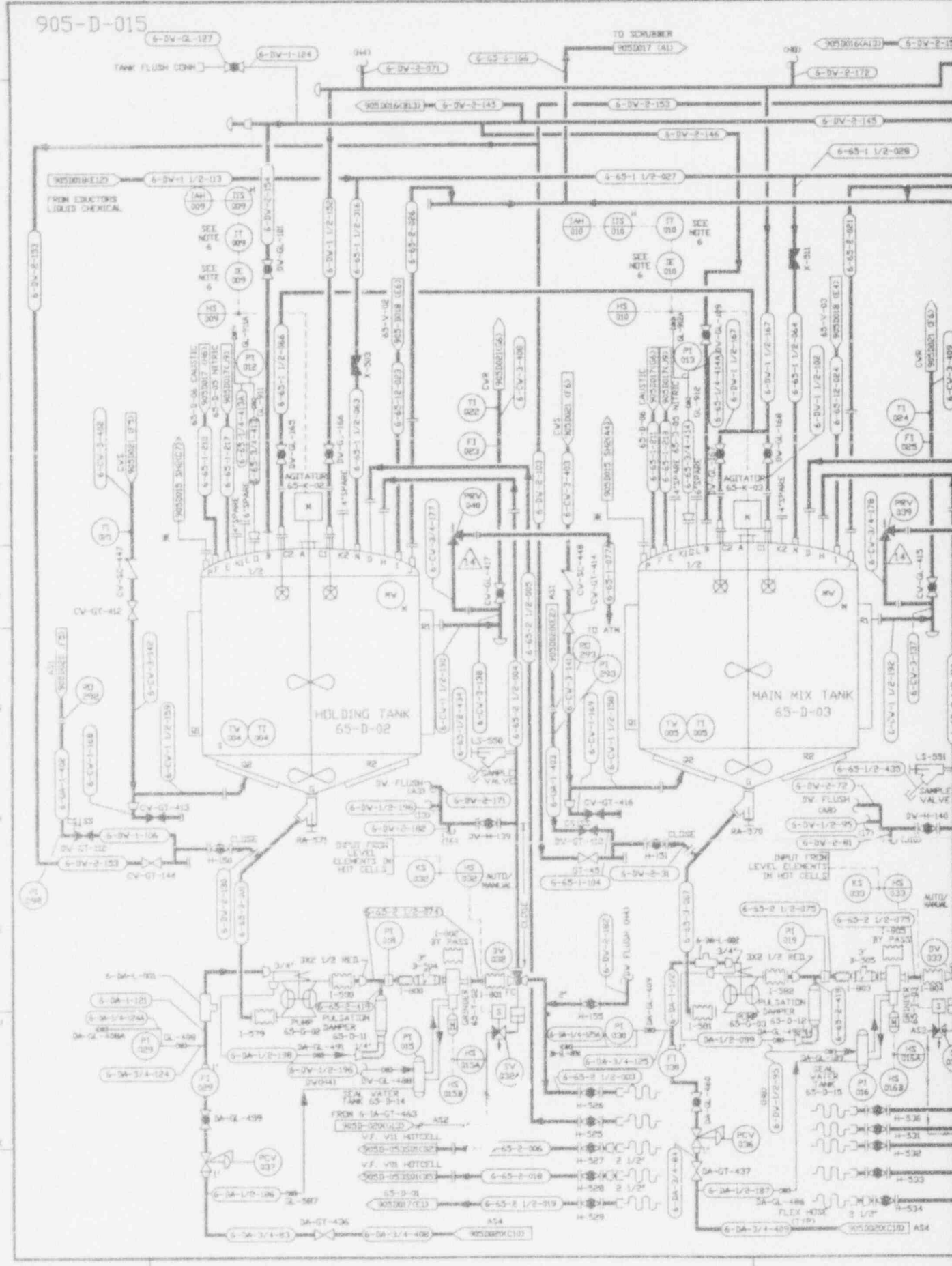
UNLESS OTHERWISE SPECIFIED	DRAWN	DATE	REV	DATE
ALL DIMS IN INCHES	W. KOCH	9/12/92	1	9/12/92
TOLERANCES-DO NOT SCALE	CHKD			
	DONALD R. SHAFER	9/29/93		
	ENGR			
	PAUL A. NESTER	9/29/93		
	D.J. RICKETTSON	9/29/93		
	T. E. COTTRELL	10/11/92		
	P. P. VILLEMS	10/5/92		
	JOHN HORTON	10/5/92		

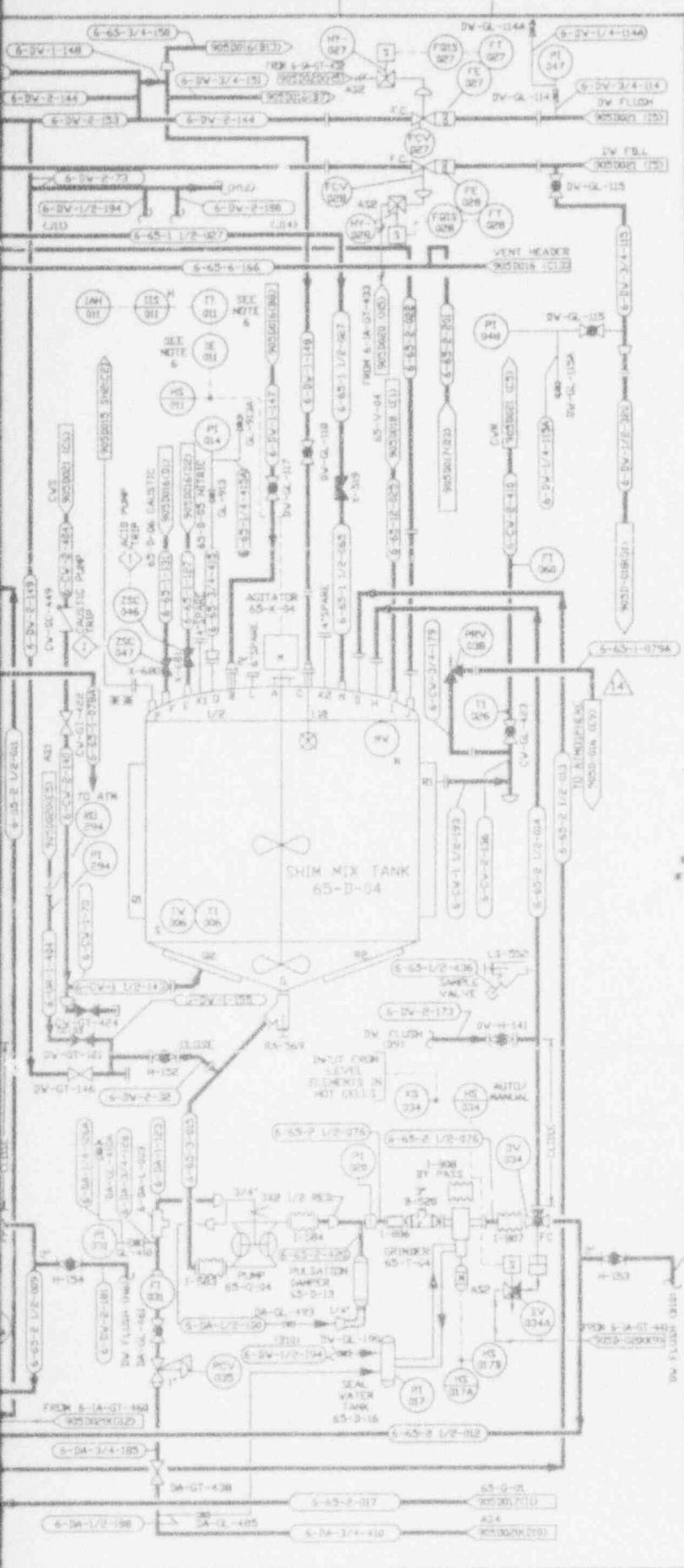
  

QTY	SYM	DESCRIPTION	PART OR IDENTIFYING NO.	MATERIAL OR SPEC.
PARTS LIST				
West Valley Nuclear Services Corp. West Valley, New York				
VF SHIELDING GAS & ARGON GAS SYSTEM P&ID				
ENG	DATE	REV	DATE	REV
905D-0101				
D				



905-D-015





REL	DATE	REVISION	DR	CH	APPROVED
B	05-14-87		TJK	AJD	R.L. FSK MDV
GENERAL REVISION					
C	08-14-87		TJK	AJD	ECS R.L. FSK MDV
REVISION PER CSAR 2454					
D	10/23/87		TJK	AJD	R.L. FSK MDV
REVISION PER CSAR 9439					
E	10/3/88	ER 1468			JRH
F	10/8/90	REV'S PER EDN 6729	HJC	HAB	HAI 10/8/90
G	10/19/90	GEN REV PER EDN 6756 & 6759	GM	HAB	DJR
H	10/27/90	GEN REV PER EDN 6993	SRD	KHG	RD
I	11/4/90	REV -CR EDN 6844	SRD	JLR	JLR
J	9/3/92	REV'S PER EDN 56	VCK	HAB	000 9/15/92 JCD 9/25/92

REFERENCE DRAWINGS

- COLD CHEMICAL UTILITY P & ID'S 905-D-019
- 905-D-020
- 905-D-025
- 905-D-029

NOTES

- AIR SUPPLY LEGEND  
AS4100 PSIG UTILITY AIR  
AS21 50 PSIG INSTRUMENT AIR  
AS31 20 PSIG INSTRUMENT AIR  
AS4100 PSIG DRY UTILITY AIR
- ALL SLURRY LINES SHALL BE DESIGNED WITH LONG RADIUS (SD) BENDS.
- ALL SLURRY TRANSFER LINES TO BE DESIGNED WITH BREAK FLANGES LOCATED EVERY 10 FEET MINIMUM.
- ALL BALL VALVES IN SLURRY SERVICE TO BE FULL PORTED WITH BALL ON BENNETS.
- DELETED
- THIS ITEM IS LOCATED IN NEG.
- ALL INSTRUMENT ITEM NUMBERS ARE PRECEDED BY 65-
- ALL VALVE/SPECIALTY ITEM NUMBERS ARE PRECEDED BY 6-65-UNLESS OTHERWISE NOTED
- WORKS SHALL BE PLACED IN WEIGH SCALE AREA AND AT THE EAST SIDE OF THE CL. 115000 OPERATING PLATFORM.
- ALL VALVE AND LINE NUMBERS ARE PRECEDED BY 6

W LEVEL CONTROL STATION #1  
W LEVEL CONTROL STATION #2

EQUIP NUMBER	NAME	REFERENCE DWG. NO.	DESCRIPTION
65-D-02	SLURRY HOLD TANK	E-1489	5000 GAL. WORKING VOL. 9'-6" DIA. 9'-0" H. S.S. 304L SS
65-D-03	MIX TANK	E-1490	5000 GAL. WORKING VOL. 9'-6" DIA. 9'-0" H. S.S. 304L SS
65-D-04	GRN TANK	E-1490	500 GAL. WORKING VOL. 4'-0" DIA. 9'-0" H. S.S. 304L SS
65-D-02	DIAPHRAGM PUMPS		AIR OF DOUBLE DIAPHRAGM PUMPS
65-D-03	PUMPS		VR MODEL 530-A 2" INDOOR SIZE
65-K-02	GR TANK		15 HP/24 RPM/36" DIA. 2'-54" DIA. BLADES/304L SS
65-K-03	AGITATORS		2 HP/24 RPM/24" DIA. BLADES/304L SS
65-K-04	GRN TANK		2 HP/24 RPM/24" DIA. BLADES/304L SS
65-D-14	SEAL WATER		2KA WORKS SUPPLIED SEAL WTR
65-D-15	FOUS		
65-D-11	SLURRY PUMP		VARIER RUPP TRANSLIFIER
65-D-12	PULSATION DAMPERS		
65-D-13	SLURRY GRINDERS		2KA WORKS 40 HP SIEPAX 100 SPM
65-T-02			
65-T-03			
65-T-04			

FOR DRAWING INDEX SEE DRAWING NO.

DESIGNED SERVICES INCORPORATED  
A/C D/S. NO. 2288 FOR TANK ORDER 102

PROJECT MAN: R.S. WEINGART 02-38-87  
DRAWING SUPERVISOR: A.J. DEBROSIO 02-38-87  
CHECKED: T. DALPINO 02-38-87  
DESIGNER: R.J. LEWIS 02-38-87  
CHECKER: T.J. PIAZZA 02-38-87  
SCALE: NONE

WEST VALLEY NUCLEAR SERVICES COMPANY, INC.  
WEST VALLEY, NEW YORK

WEST VALLEY DEMONSTRATION PROJECT

P & ID  
COLD CHEMICAL PREPARATION AND FEED SYSTEM

PROJECT NO: 19-CV-90275  
DRAWING NO: 905D-015 14  
SCALE: NONE  
SHEET NO: 905-D-015 101

ANSTEC APERTURE CARD

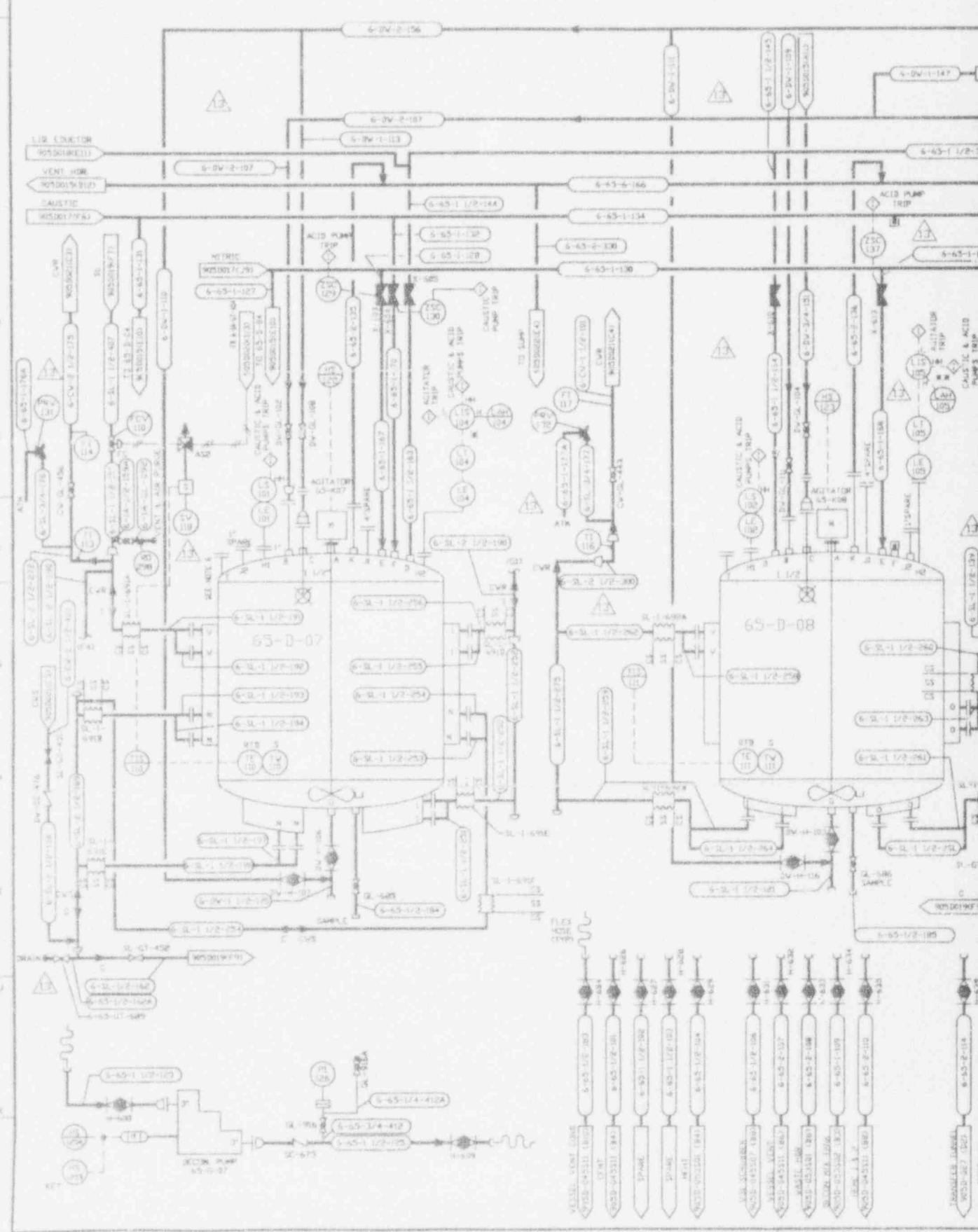
Also Available on Aperture Card

CHECK DOCUMENT CONTROL FOR LATEST REVISION

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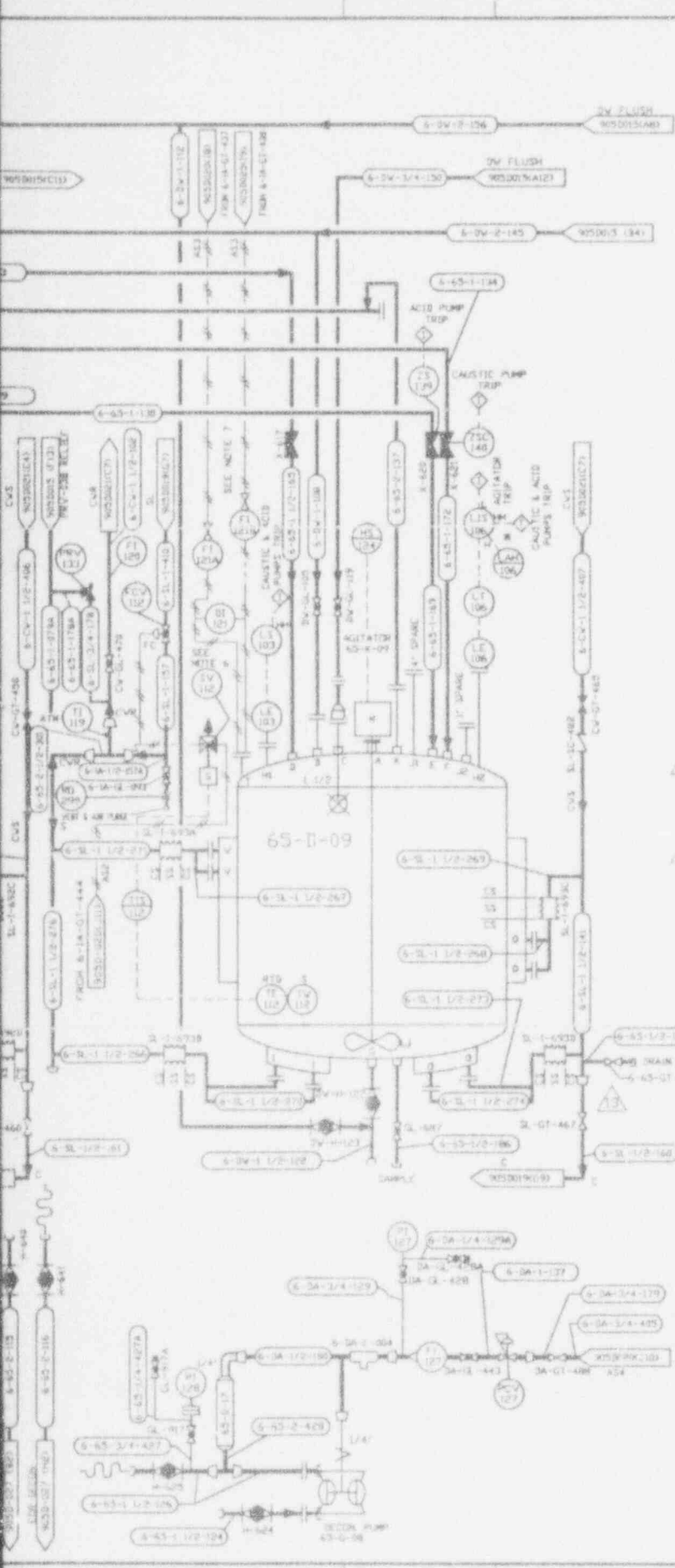
9403140323-05

905-D-016



D C B A





NO.	DATE	REVISION	DR	CH	APPROVED
B	05-14-87		TJK	AJD	R.L. AJD HDW
GENERAL REVISION					
C	08-14-87		TJK	AJD	EGS R.L. AJD HDW
REVISION PER EBAR 1448A					
D	10-23-87		TJK	ZV	R.S. AJD HDW
REVISION PER EBAR 995A					
E	10-02-88	ER 1468			JRH
F	10/20/93	GENERAL REVISION/EEN 6139	H.L.	HAB	SJR
G	10/27/93	REV'D PER EEN 6493	SRD	KWO	93
H	11/5/93	REV'D PER EEN 6844	SRD	25	DB
I	6/6/91	REV'D PER EEN 224	SRD	DRS	REC 6/25/91
J	3/25/90	REV'D PER EEN 5040	QSR	HAB	TEC
K	3/1/93	REV'D PER EEN 5974	SRD	DRS	DDG
L	3/29/93	REV'D PER EEN 6000	TRC	HAB	GGT
M	4/15/93	REV'D PER EEN 6205	DAK	HAB	ZB
N	9/25/93	REV'D PER EEN 6455	JLH	HAB	GGT
O	9/3/93	REV'D PER EEN 6656	VOX	HAB	DDG

- NOTES
- FOR GENERAL NOTES SEE DWG. 905-D-015.
  - ACID, CAUSTIC, AND DUCTED LIQUIDS LINES SHALL BE OF ALL WELDED CONSTRUCTION. WHEN THESE TRANSFER LINES ENTER A VESSEL THEY SHALL EXTEND 4" INTO TANK.
  - 65-D-07 TANK MANWAY TO BE UTILIZED AS POWDER INLET IF PNEUMATIC CONVEYING SYSTEM IS ADDED IN FUTURE.
  - ALL VALVE/SPECIALTY ITEM NUMBERS PRECEDED BY 6-65- UNLESS OTHERWISE NOTED.
  - ALL INSTRUMENT ITEM NUMBERS ARE PRECEDED BY 65-.
  - FOR OTHER COMPONENTS ASSOCIATED WITH SOLENOID VALVES SV-110 AND SV-112, REFER TO COLD CHEM SYSTEM INSTR. INSTALL. DETAILS DWG NO 905D-355, 5H16
  - FOR OTHER COMPONENTS ASSOCIATED WITH ROTAMETERS FI-120A & B, REFER TO COLD CHEMICAL SYSTEM INSTR. INSTALL. DETAILS DWG NO 905-D-055 SH 22
- \* LEVEL CONTROL STATION #1
  - \*\* LEVEL CONTROL STATION #2

GROUP NO	GROUP NAME	REV. DWG.	DESCRIPTION
65-D-07	SECTION TK	900-1900	1000 GAL. V. VCL. 4'-6" DIA. 3'-0" TYPE 304L SS. WITH BOLT-ON JACKET
65-D-08	SECTION TK	2-1495	250 GAL. V. VCL. 3'-0" DIA. 3'-6" TYPE 304L SS. WITH BOLT-ON JACKET
65-D-09	SECTION TK	2-1496	250 GAL. V. VCL. 3'-0" DIA. 3'-6" TYPE 304L SS. WITH BOLT-ON JACKET
65-G-07	SECTION HEATING PUMP		1000 GPM @ 85 PSI VARIABLE SPEED PUMP WITH 1/2" DIA. SS & PIPE WELDED PARTS, HYDRAULIC CONTROL VALVE, 3 HP
65-G-08	SECTION TRANSFER PUMP		AIR DR. 3/8" DIA. DIAPHRAGM VR MODEL ST 1 1/2" DIA. TYPE 3 216 US & TELLON 50 GPM @ 65PSI
65-D-17	VALVE		VARIABLE SPEED TRANQUILIZER
65-K-07	AGITATOR		10 HP 34 RPM 1-10" DIA. PROP. 304L SS
65-K-08	AGITATOR		0.5 HP 430 RPM 1-11" DIA. PROP. 304L SS
65-K-09	AGITATOR		0.5 HP 430 RPM 1-11" DIA. PROP. 304L SS

FOR DRAWING INDEX SEE DRAWING NO.

APPROVE: VVH: CS	EBASCO SERVICES INCORPORATED
PROJECT NO: M.S. VENDOR	AVE 175 S. RD 2328
DRAWER: L.A. J. (L.P.P.S.)	FOR TASK: 8300203
CHECK: J. T. (L.P.P.S.)	WEST VALLEY NUCLEAR SERVICES COMPANY, INC.
SCALE: AS SHOWN	WEST VALLEY, NEW YORK
DESIGN: R.J. LEWIS	WEST VALLEY DEMONSTRATION PROJECT
CHECKER: T.J. PLAZZA	P & ID
DRAWN: SHTE	COLD CHEMICAL PREPARATION AND FEED SYSTEM
DATE: 03-04-87	
PROJECT NO: 22-4037-0104-44121	DATE: 03-04-87
PROJECT NO: 19-CM-02075	DATE: 03-04-87
SUBJECTIVITY NO:	
ISSUED FOR CONSTRUCTION:	

DATE: 03-04-87	INDEX: 0104	DRAWING NO: 905D-016	REV: 13
SHEET NO: 01	TOTAL SHEETS: 13		
SCALE: NONE	SPEC. CODE: AVE SHEET NO: 905D-016		

ANSTEC APERTURE CARD

Also Available on Aperture Card

CHECK DOCUMENT CONTROL FOR LATEST REVISION

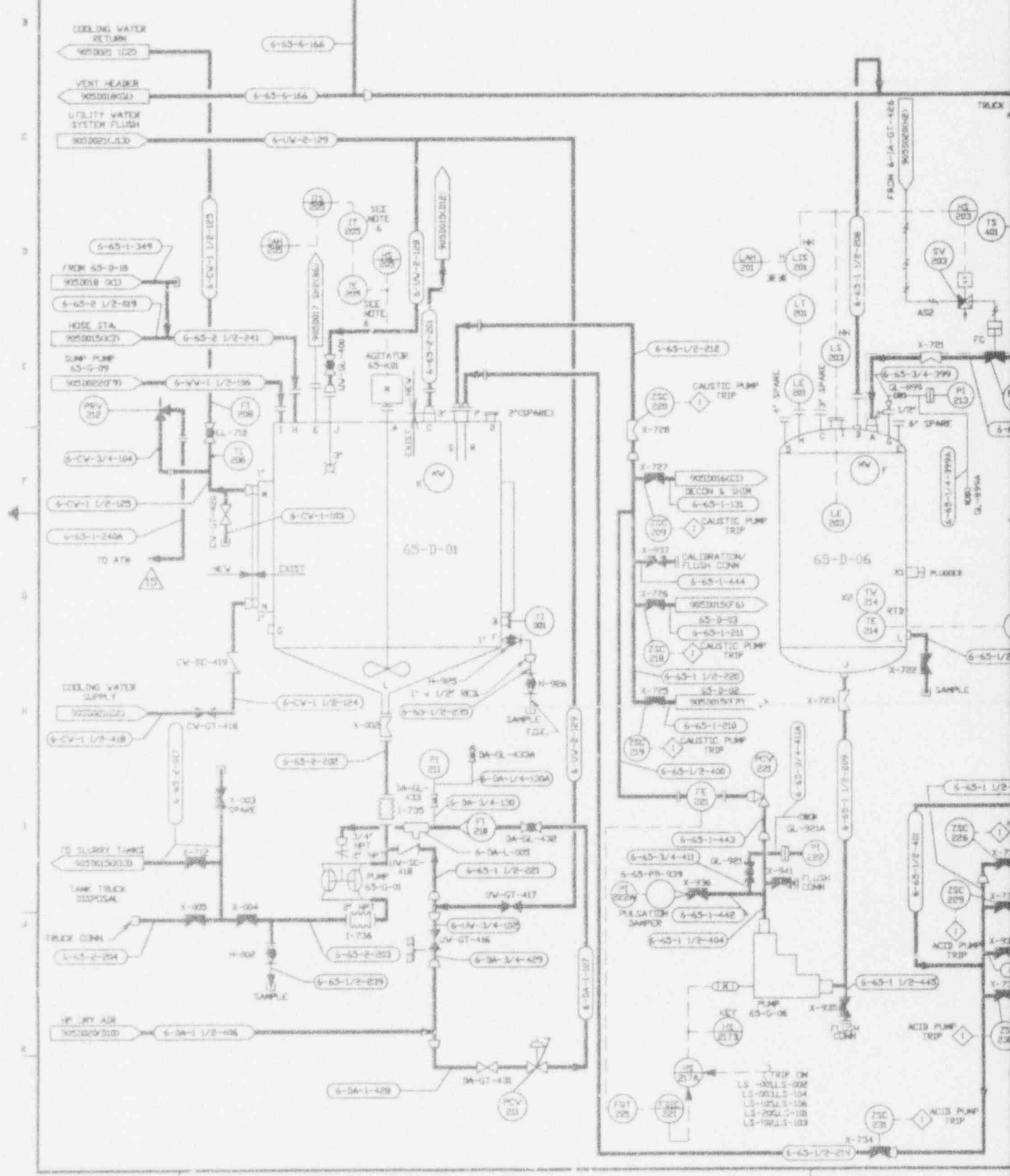
CAD DRAWING - Do NOT revise this original

9403140323-06

905-D-017

60% NITRIC ACID

MSHA IDENTIFICATION  
HEALTH HAZARD  
FIRE HAZARD  
REACTIVITY  
SPECIFIC HAZARD



40% SODIUM HYDROXIDE

NFPA IDENTIFICATION SYSTEM  
 HEALTH HAZARD 3  
 FIRE HAZARD 0  
 REACTIVITY 1  
 SPECIFIC HAZARD N/A

NO.	DATE	REVISION	DR	CH	APPROVED
1	05-14-87		TJK	AJD	R.A. ESK
GENERAL REVISION					
2	08-14-87		TJK	AJD	ESS
REVISION PER EBAR 395A					
3	10-23-87		TJK	R19	R.A. ESK
REVISION PER EBAR 345B					
4	10/3/90	ER 1468			JRH
12	10/26/93	REV'S PER ECR 6129	H.L.	HAB	D.JR
13	10/27/93	REV'S PER ECR 6993/6995	SKD	KQ	EVN/RD 10/27/93
14	11/02/93	REV'S PER ECR 6972	KCZ	KQ	RNB
15	11/9/93	REV'S PER ECR 6844	SRD		<i>pl</i> <i>ck</i>
5	1/29/92	REV'S PER ECR 35	SRD	HAB	D.JR 10/20/92
6	10/21/90	GEN REV PER ECR 5468	SRC	HAB	ZB 10/27/90
7	11/04/90	REV'S PER ECR 5633	AAJ	SR5	D.JR
8	3/2/93	REV'S PER ECR 5974	SKD	SR5	DDO
9	3/29/93	REV'S PER ECR 6000	SRC	HAB	GGT
10	8/23/93	REV'S PER ECR 6455	J.H.	HAB	GGT
11	9/7/93	REV'S PER ECR 6456	VOK	HAB	DDO

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 APERTURE  
 CARD

Also Available on  
 Aperture Card

NOTES:

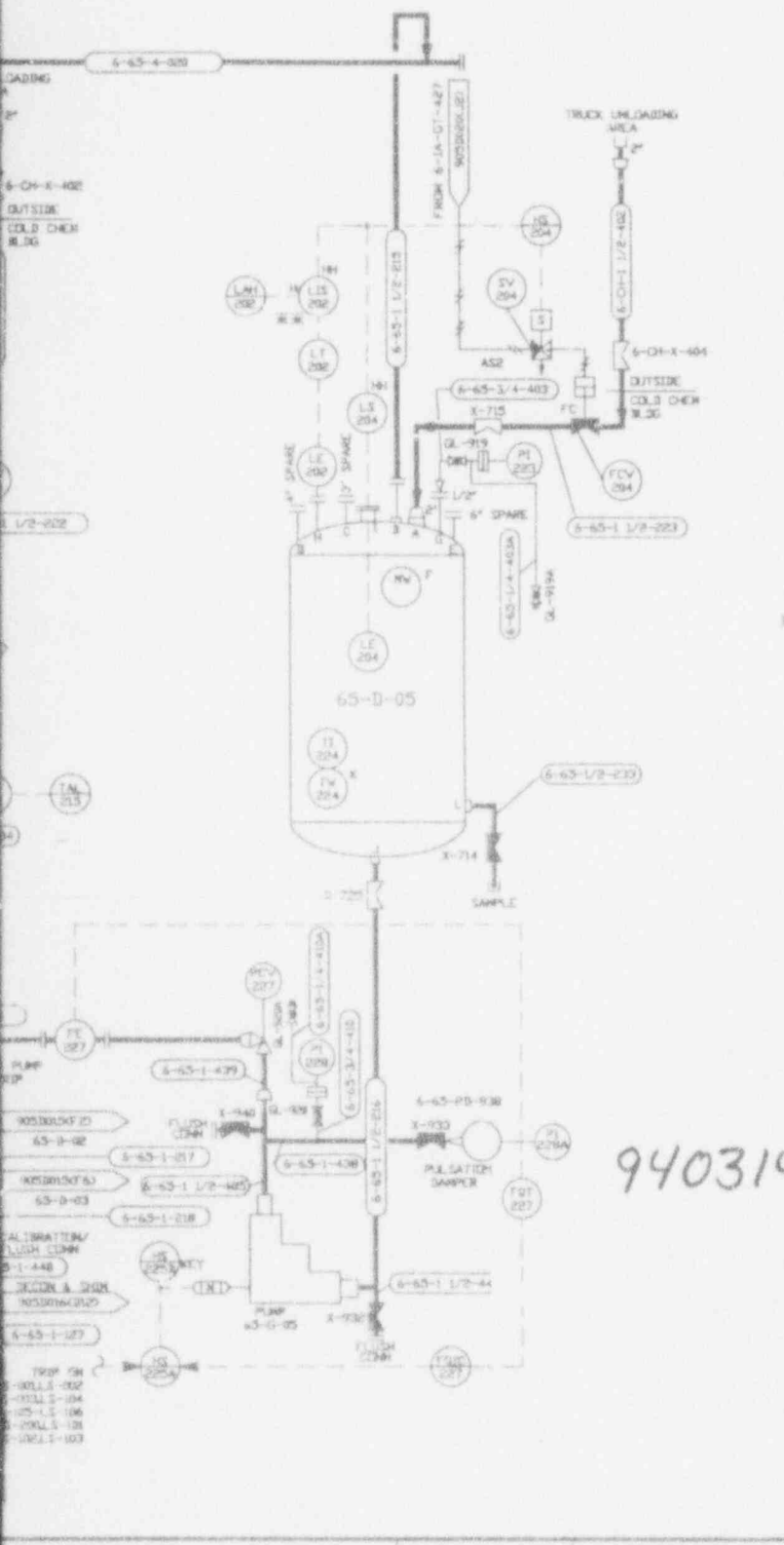
- FOR GENERAL NOTES SEE DWG 905-D-015.
- EXISTING 3" PIPE GINN NOZZLE 'C' (VENT) TO BE MODIFIED FOR ROUTING TO SCRUBBER SYSTEM.
- ACID & CAUSTIC DISTRIBUTION PIPING IS TO BE OF WELDED CONSTRUCTION TO THE MAXIMUM EXTENT POSSIBLE.
- ALL VALVE/SPECIALTY ITEM NUMBERS PRECEDED BY 6-65- UNLESS OTHERWISE NOTED.
- THIS ITEM IS LOCATED IN MCC.
- EXISTING STEAM & WATER JACKETS TO BE UTILIZED AS IS WITH NEW UTILITY PIPING SYSTEM.
- ALL INSTRUMENT ITEM NUMBERS ARE PRECEDED BY 65-.
- LEVEL CONTROL STATION #1
- LEVEL CONTROL STATION #2

DEPT. NO.	NAME	REF. DWG.	DESCRIPTION
65-0-01	DRAIN TANK	E-1088	11,000 GAL. CAPACITY, 11'-6" DIA. X 14'-0" H. SS, 304 S/S
65-0-06	CAUSTIC DAY TANK	E-1088	500 GAL. WORKING VOL., 4'-0" DIA. X 6'-0" H. SS, 304 S/S
65-0-05	NITRIC ACID SAT. TANK	E-1495	1500 GAL. WORKING VOL., 6'-0" DIA. X 7'-6" H. SS, 304 S/S
65-0-03	NITRIC ACID TRANSFER PUMP		MILROY 3" VARIABLE DISPLACEMENT METERING PUMP, 500 GPM MAX @ 100 PSIG MODEL KMH-12C-56 21-E 3.0 HP
65-0-04	CAUSTIC TRANSFER PUMP		MILROY 3" VARIABLE DISPLACEMENT METERING PUMP, 300 GPM MAX @ 100 PSIG MODEL KMH-12C-56 21-E 1.5 HP
65-0-01	DRAIN PUMP	900-D-970	AIR-OP VIB DOUBLE DIAPHRAGM MODEL SARAD-140 GPM, 2" SIZE
65-0-01	DRAIN TANK AGITATOR	900-D-970	7.5 HP, 1750 RPM, 460/3/40 MOTOR, GEARED DOWN TO 56 RPM, 3 BLADE

CURRENT AS OF

DEC 1 7 1993

CHECK DOCUMENT CONTROL FOR LATEST REVISION.



9403140323-07

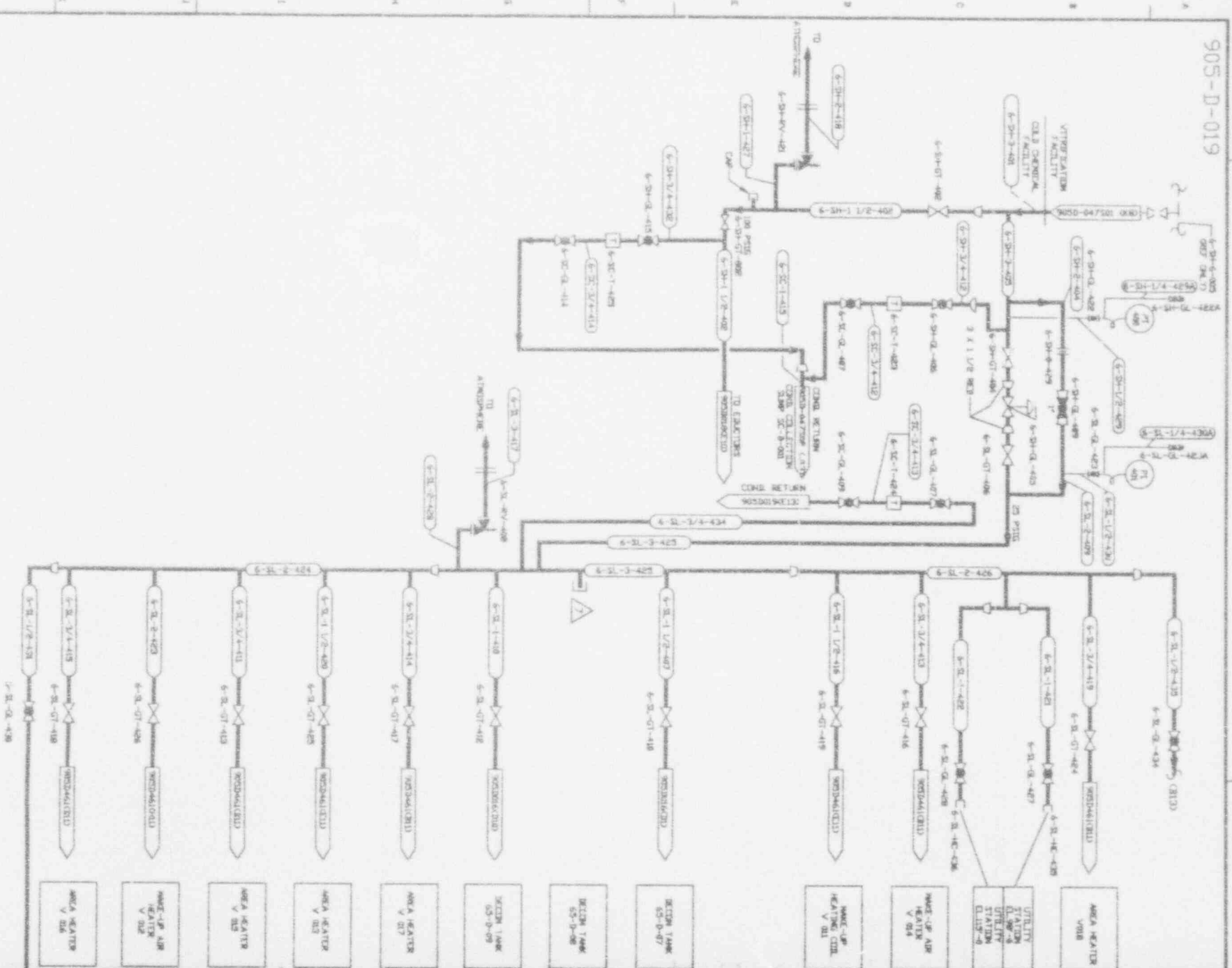
FOR DRAWING INDEX SEE DRAWING NO.

APPROVED FOR CONSTRUCTION	DATE	BY	REVISION
PROJECT NO.	DATE	BY	REVISION
ENGINEER	DATE	BY	REVISION
DR. J. LEVICKI	12-18-87		
T. J. PIAZZA	09-28-87		
R. J. LEVICKI	03-28-87		

EBASCO SERVICES INCORPORATED  
 WEST VALLEY NUCLEAR SERVICES COMPANY, INC  
 WEST VALLEY, NEW YORK

WEST VALLEY DEMONSTRATION PROJECT  
 P & ID  
 COLD CHEMICAL PREPARATION AND FEED SYSTEM

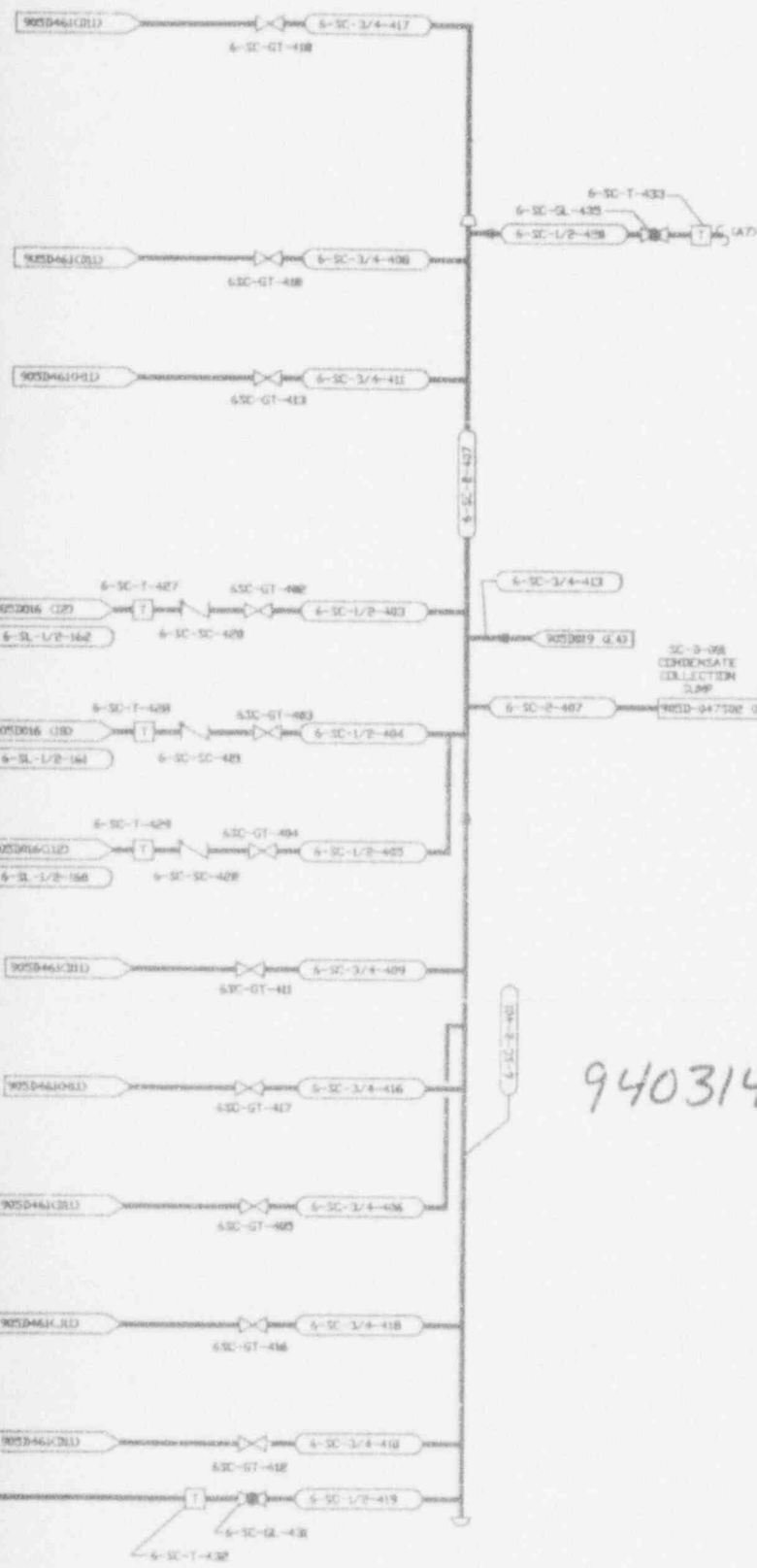
PROJECT NO.	905D-017
SUBJECT	INDEX CODE
DATE	12-18-87
BY	R. J. LEVICKI



D C B A

1 2 3 4 5 6 7 8

NO.	DATE	REVISION	DR	CH	APPROVES
8	6-19-87		TJK	R.L.	R.L. FSK NDV
GENERAL REVISION					
7	08-14-87		TJK	EDS	EDS R.L. FSK NDV
REVISION PER CSAR 3430					
6	10-29-87		TJK	JW	R.L. FSK NDV
REVISION PER CSAR 3438					
5	10-3-88	CR 1460			JRH
4	11-10-88	REV'S PER EDN 2679	BAS		RS 11/14/88
3	02-01-90	REV'S PER EDN 3429	RV	DRS	RB 4/25/90
2	7/13/90	REV'S PER EDN 3802	AWH	DRS	ZB 5/27/90
1	3/2/93	REV'S PER EDN 7774	DRS	DRS	DRS 3/18/93
0	3/25/93	REV'S PER EDN 6703	LHK	DRS	HUJ
0	10/25/93	REV'S PER EDN 6139	H.L.	HAB	DJR
0	11/5/93	REV'S PER EDN 6844	DRS	DRS	DJE



**NOTES**

- FOR GENERAL NOTES SEE DWG 905-D-015.
- TRAPS ARE TO BE SUPPLIED WITH INTEGRAL STRAINERS.

**REFERENCE DRAWINGS**

COLD CHEMICAL PREP AND FEED SYSTEM PIPES	905-D-015
	905-D-016
	905-D-017
	905-D-018

**ANSTEC APERTURE CARD**  
Also Available on Aperture Card

9403140323-08

**ECN(S) PENDING #7090**

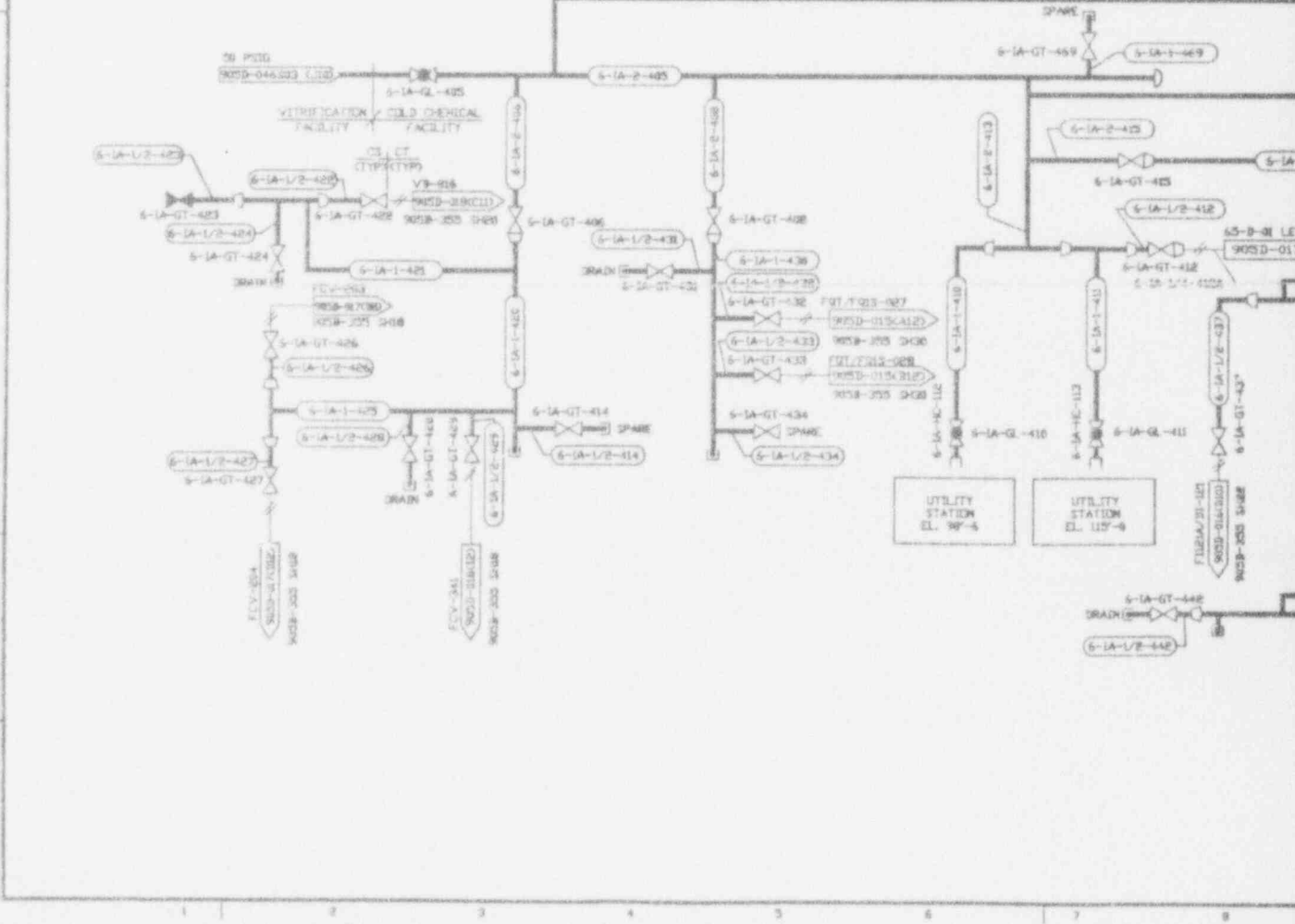
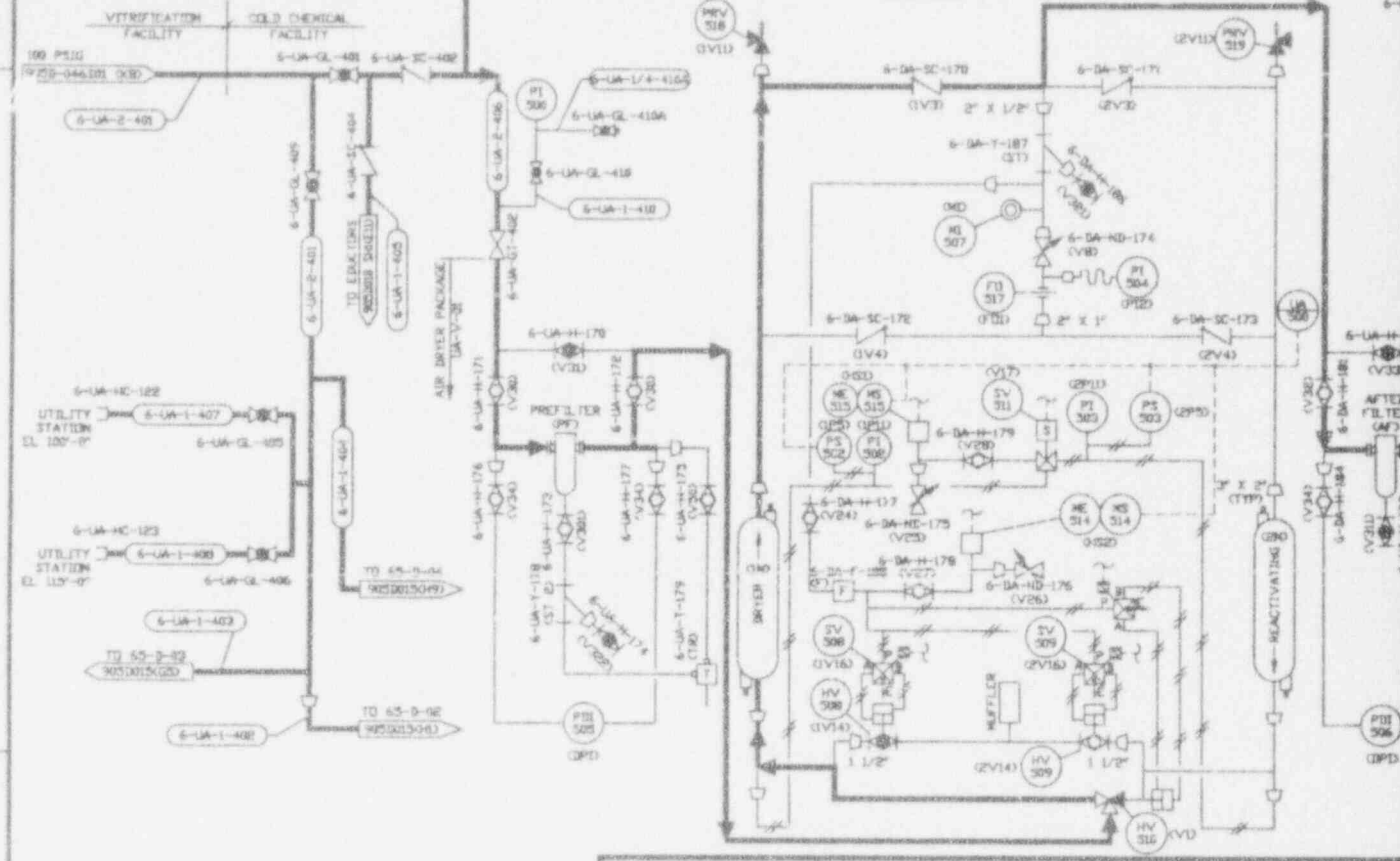
CAUTION CURRENT AS OF 08/17/93

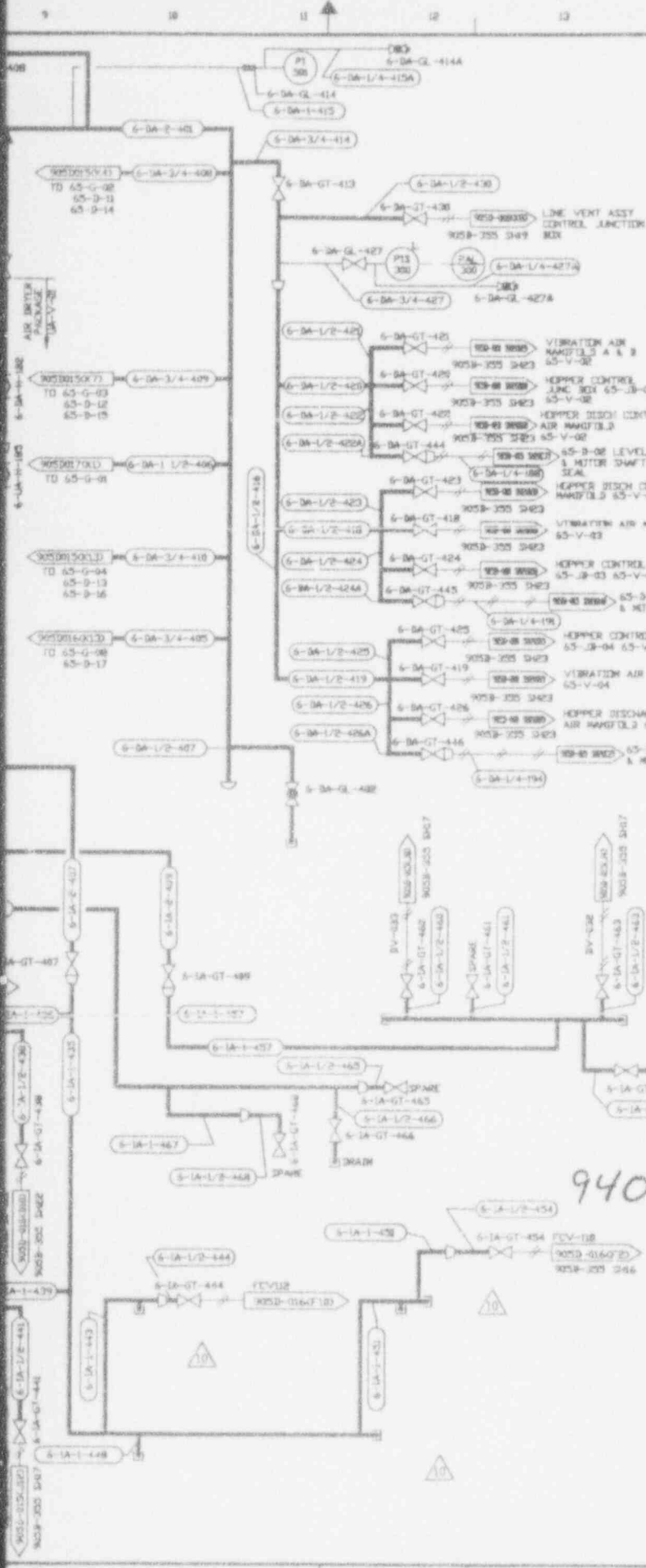
CHECK DOCUMENT CONTROL FOR LATEST REVISION

CAD DRAWING - Do NOT revise this drawing

FOR DRAWING INDEX SEE DRAWING NO.		APPROVED BY: [Signature]	
PROJECT NO. 9403140323-08		DATE: 08-19-87	
DRAWN BY: [Signature]		CHECKED BY: [Signature]	
SCALE: AS SHOWN		SHEET NO. 9050-019 7	
DATE FOR CONSTRUCTION: 1988		SHEET NO. 905-D-019 7	

905-D-020





REV	DATE	REVISION	DR	CH	APPROVED
2	06-19-87		TJK	RJA	RJA / FSK / RDV
GENERAL REVISION					
C	08-14-87		TJK	EGG	RJA / AJO / FSK / RDV
REVISION PER CSAR 949A					
D	09-29-91		TJK	JV	RJA / FSK / RDV
REVISION PER CSAR 992A					
E	09-3-98	EX 1468			JRN
F	10/27/93	REV'S PER EDN 6993	SRD	KMG	RD 10/27/93
G	11/6/93	REV'S PER EDN 6844	SRD	DES	DJR
H	7/13/96	REV'S PER EDN 3862	AWN	DRS	RD 5/27/96
I	6/6/91	REV'S PER E.H. 4224	SRD	DRS	REC 6/25/91
J	3/3/93	REV'S PER EDN 5974	SRD	DRS	DDO 3/8/93
K	4/13/93	REV'S PER EDN 6169	AAJ	DRS	DJR 4/26/93
L	8/23/93	REV'S PER EDN 6495	J.H	HAB	GOT
M	10/14/93	REV'S PER EDN 6873	LJK	DRS	PAN

- FOR GENERAL NOTES SEE DWG 905-0-015
- AIR SUPPLY LEGEND (WHERE APPLICABLE)  
 AS1-100 PSIG UTILITY AIR  
 AS2-70 PSIG INSTRUMENT AIR  
 AS3-20 PSIG INSTRUMENT AIR  
 AS4-100 PSIG DRY UTILITY AIR

**ANSTEC**  
**APERTURE**  
**CARD**

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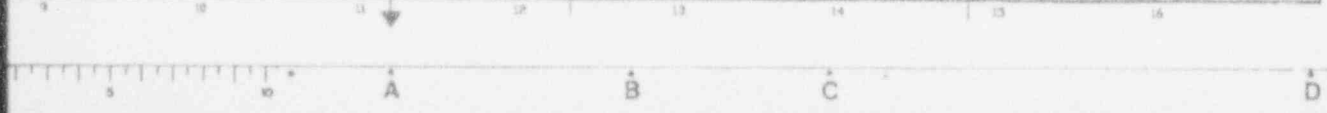
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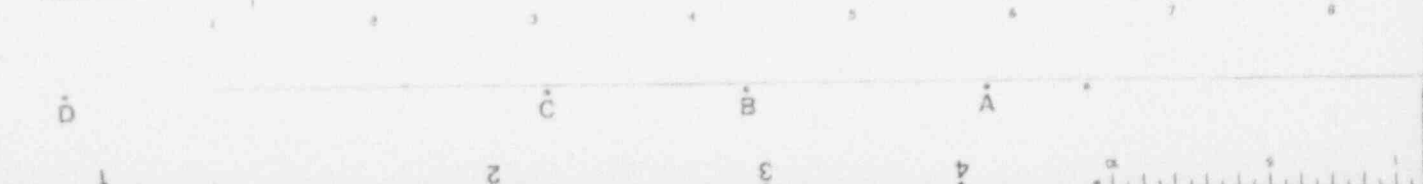
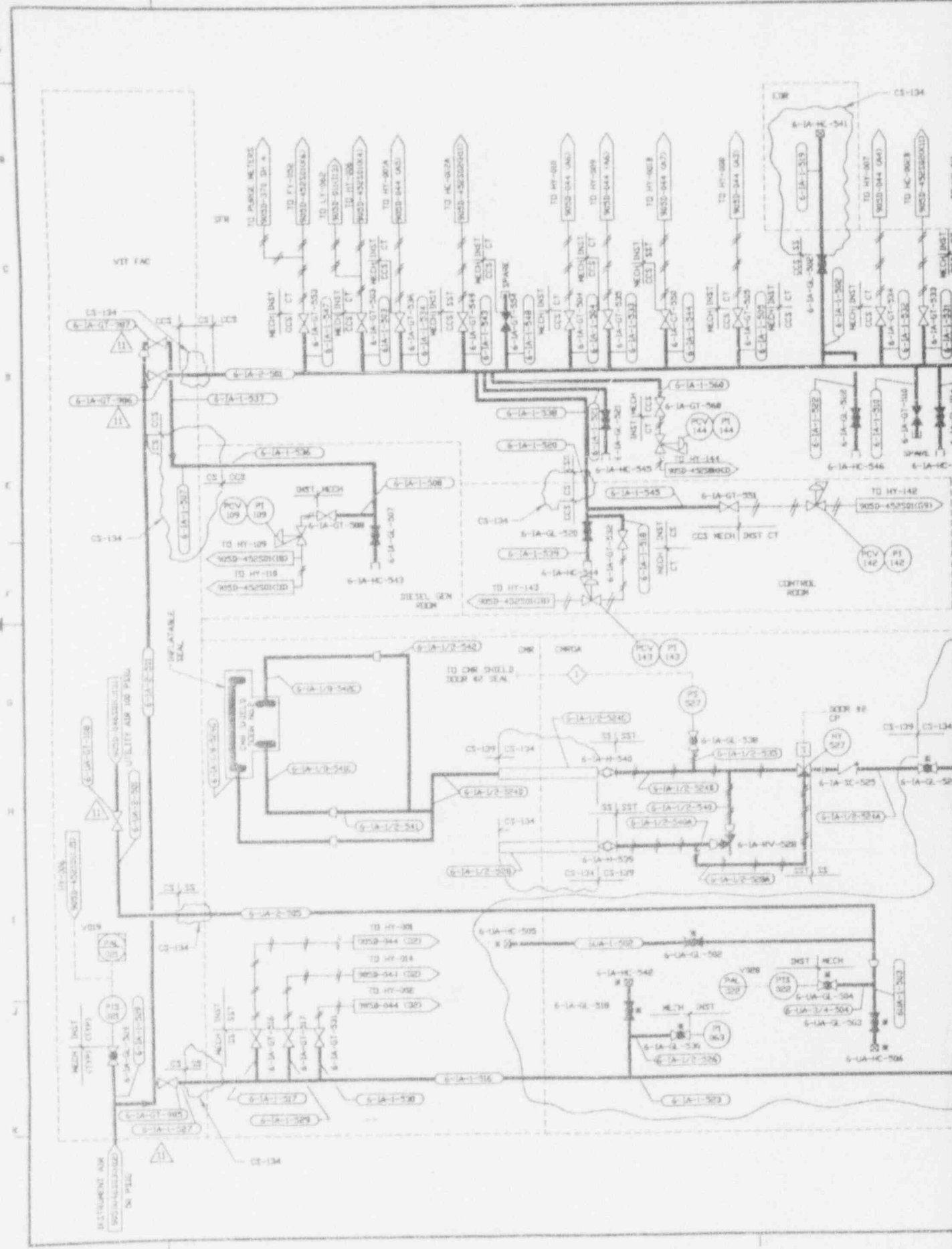
9403140323-09

FOR DRAWING INDEX SEE DRAWING NO.		ESBARCO SERVICES INCORPORATED	
PROJECT NO.	9403140323	REV. OF S. NO.	2308
DESIGNED BY	T.S. PLAZA	DATE	04-26-87
CHECKED BY	R.J. LEVRO	DATE	04-26-87
DATE	04-26-87	WEST VALLEY DEMONSTRATION PROJECT	
P & ID			
COLD CHEMICAL			
UTILITY AND INSTRUMENT AIR			
PROJECT NO.	905D-020	DRAWING NO.	10
DATE	04-26-87	SCALE	AS SHOWN
DESIGNED BY	T.S. PLAZA	CHECKED BY	R.J. LEVRO
DATE	04-26-87	DATE	04-26-87
PROJECT NO.	905D-020	DRAWING NO.	10
DATE	04-26-87	SCALE	AS SHOWN

CAD DRAWING - Do not revise this original.

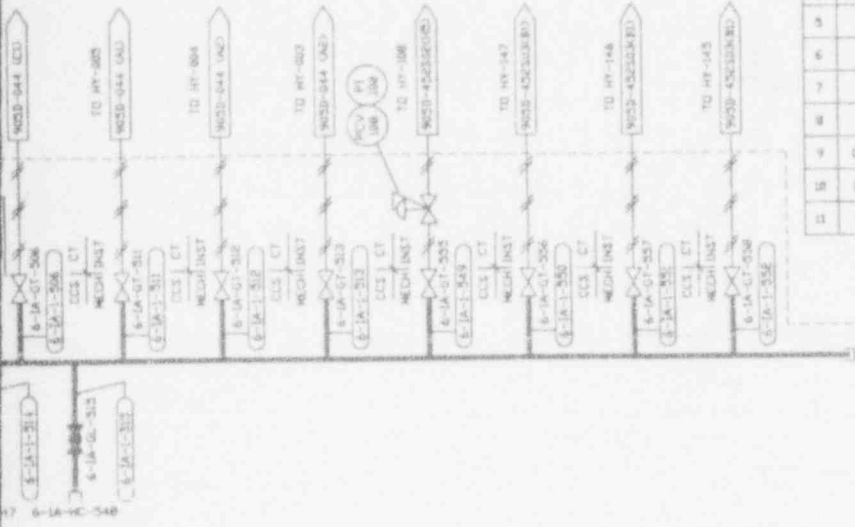
CHECK DOCUMENT CONTROL FOR LATEST REVISION.







NO.	DATE	REVISION	BY	CHK	APPROVED
0	7-19-89	DR 1649			JRH
1	12-12-89	REV'D PER EDR 3165	JAW	KMG	DJR
2	3-15-90	REV'D PER EDR 3383	PCS	DRS	DJR
3	4-25-90	REV'D PER EDR 3520	PCS	DRS	DJR
4	5-29-90	REV'D PER EDR 3669	CTC	DRS	DJR
5	1-9-91	REV'D PER EDR 4071	AVN	HAB	DJR
6	7-16-91	REV'D PER EDR 4398	AVN	HAB	DJR
7	7-2-92	REV'D PER EDR 4891	DAK	HAB	DJR
8	8-11-92	REV'D PER EDR 5205	VCK	HAB	DJR
9	10-24-93	REV'D PER EDR 5653	DRS	DRS	PAH
10	10-28-93	REV'D PER EDR 7617	KGZ	DRS	JRY
11	11-16-93	REV'D PER EDR 7711	HLK	JRY	JRY



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REFERENCE DRAWINGS:

- P & ID VITRIFICATION FACILITY UTILITY AIR SYSTEM 905-D-046 501
- P & ID VITRIFICATION FACILITY INSTRUMENT AIR SUPPLY 905-D-046 503
- INSTRUMENT LOCATION ARRANGEMENT DRAWINGS-HVAC SYSTEM 905-D-378 SH 1-3
- INSTRUMENT LOCATION ARRANGEMENT DRAWINGS-VITRIFICATION FACILITY 905-D-378 SH 1-4

L \* DESIGNATES EXISTING EQUIPMENT

NOTES:

FOR DRAWING INDEX SEE DRAWING NO.

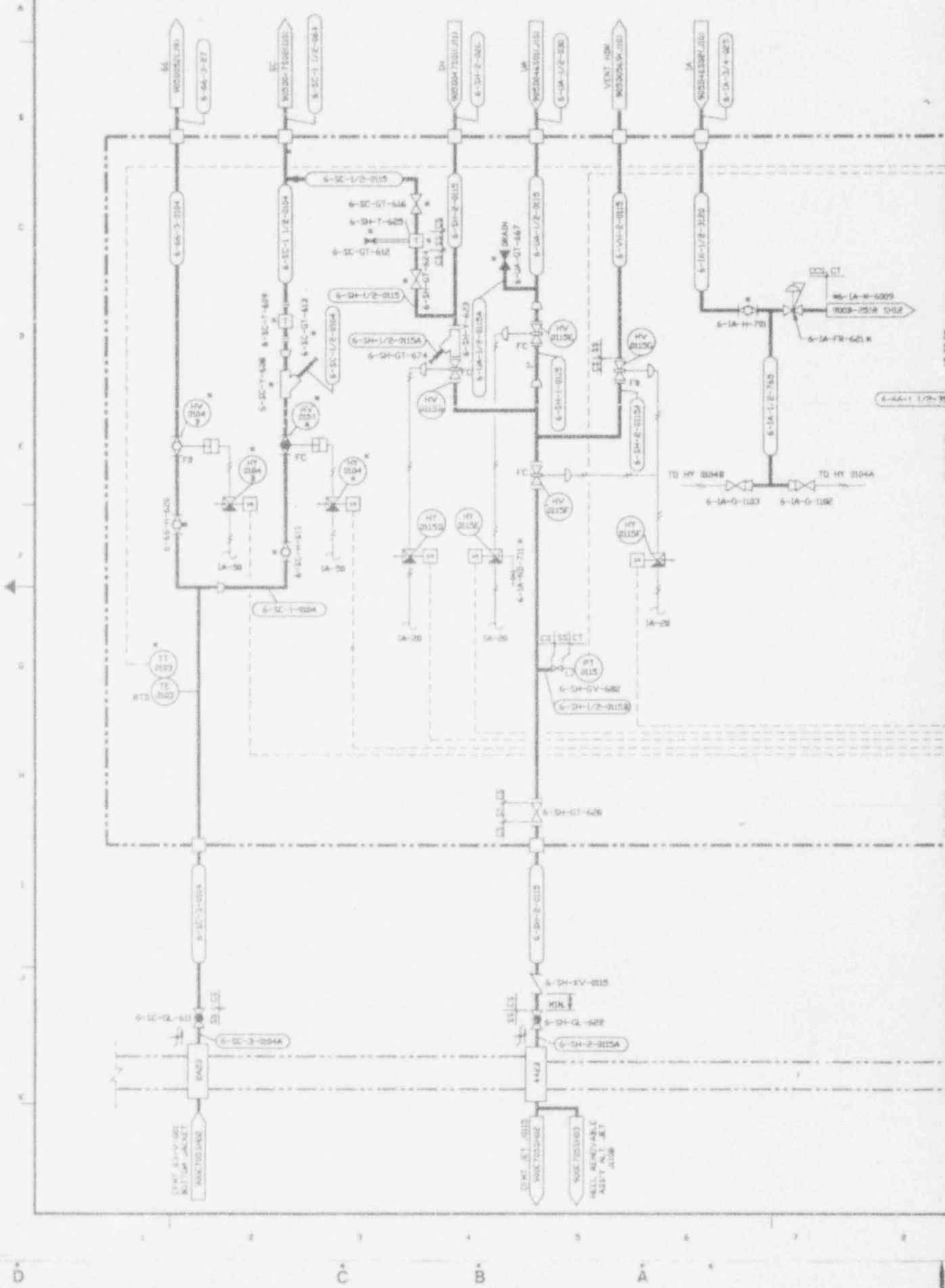
APPROVED BY	DATE	EASCO SERVICES INCORPORATED		
PROJECT NO.	DATE	PROJECT NO. 9403140323	TASK WORK 302	
DESIGNED BY	DATE	WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK		
CHECKED BY	DATE	WEST VALLEY DEMONSTRATION PROJECT		
DATE	DATE	P & ID VITRIFICATION FACILITY INSTRUMENT & UTILITY AIR SYS		
PROJECT NO.	INDEX CODE NUMBER	DRAWING NO.	REV.	
19-000-00075	D	905D-029	11	
DRAWING NO.	AREA	DATE	SHEET NO.	
19-000-00075	D	11/16/93	501	

CAD DRAWING - DO NOT REVISE THIS ORIGINAL

CHECK ENGINEER CONTROL FOR LATEST TISSUE

9403140323-10

905-D-045 S01



NO.	DATE	REVISION	DR	CH	APPROVED
1	10-15-88		T.K.	R.A.	R.L. J.D. K.D.V.
GENERAL REVISION INCLUDING TA 767					
2	10-30-88		P.J.S.	R.A.	R.A. F.S.K. N.E.S.
GENERAL REVISION INCLUDING TA 807					
3	4-13-89		R.L.	J.V.	F.S.L. J.P. J.T.T.
GENERAL REVISION					
4	5-12-89	DR 1631			J.R.H.
5	1-16-90	ECN 3359	D.R.V.	P.A.M.	N.E.C.
6	7/9/91	REV PER ECN 4341	AWN	HAB	D.R.
7	2/4/92	REV PER ECN 4918	DGR	HAB	D.R.
8	10/27/93	NO REV PER ECN 6891	N.J.C.	J.P.S.	J.L.O.

NOTES:

1. NEW INSTRUMENTS & VALVES TO BE INSTALLED ON THIS EXISTING RACK ARE MARKED WITH SINGLE ASTERISK (\*).
2. 1A 20 AIR SUPPLY SERVICE FROM MANIFOLD 6-1A-W-6009. SEE DWG 9008-2518 SH2.

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Aperture Card

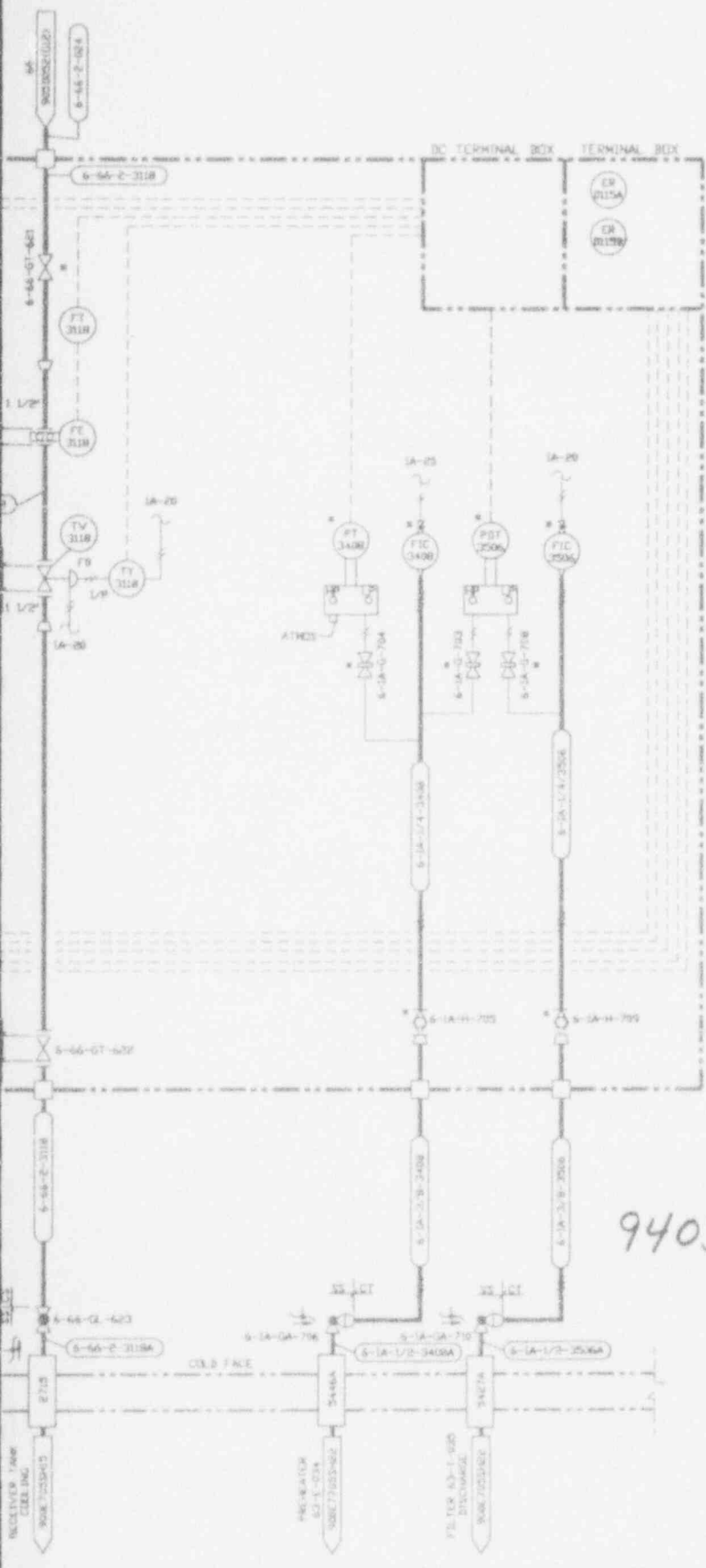
CAUTION  
CURRENT AS OF

REV. 1 7 '93

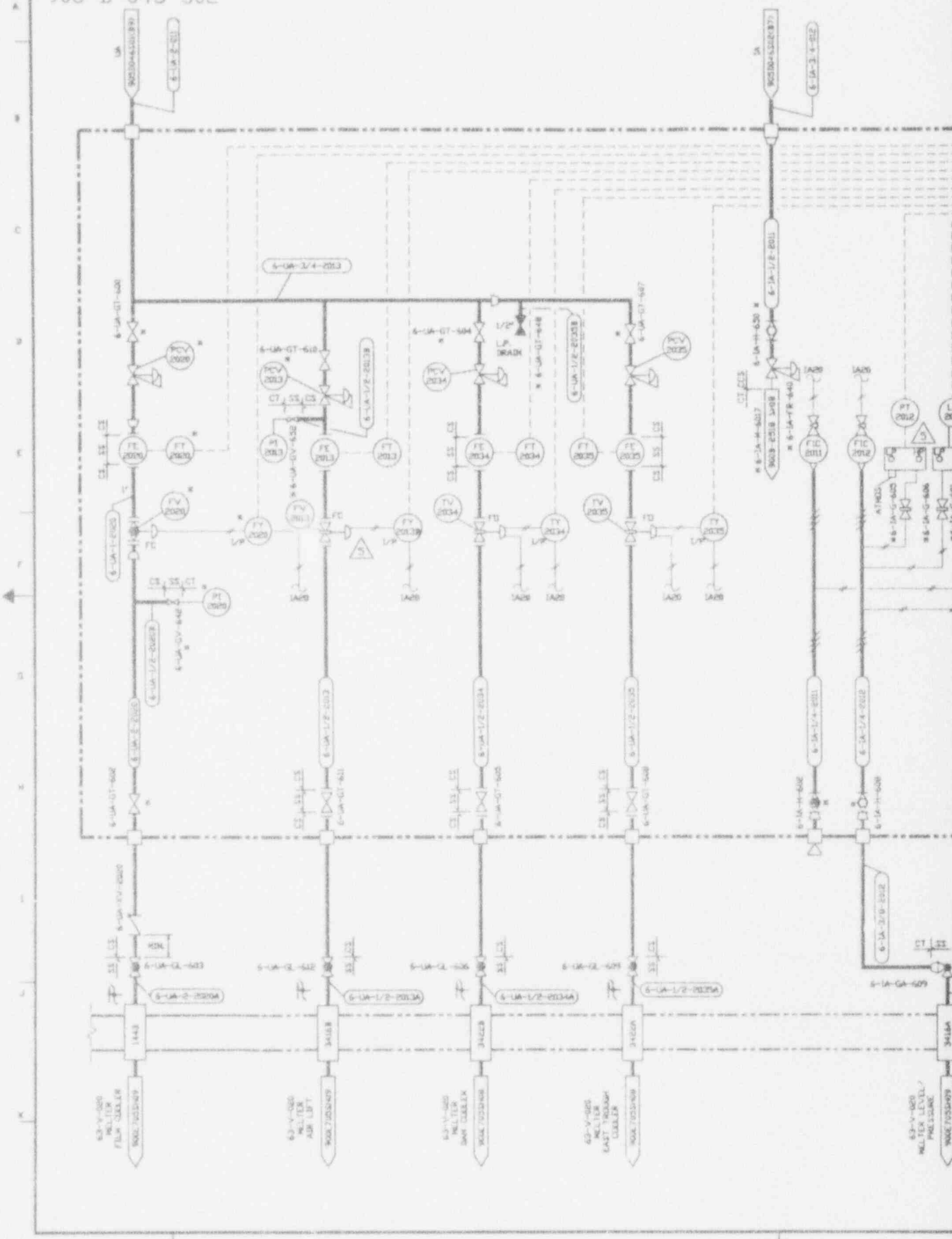
CHECK DOCUMENT CONTROL  
FOR LATEST REVISION

9403140323-17

FOR DRAWING INDEX SEE DRAWING NO.		EASCO SERVICES INCORPORATED	
APPROVED BY	1-7-88	APPROVED BY	1-7-88
PROJECT MGR.	M.D. VINCIGUERRA	PROJECT MGR.	M.D. VINCIGUERRA
ENGINEER SUPV.	A.J. DIFRANCO	ENGINEER SUPV.	A.J. DIFRANCO
DESIGNER	S. WATH	DESIGNER	S. WATH
CHECKER	A. TULLO	CHECKER	A. TULLO
DRAWN	B.F. REYNOLDS	DRAWN	B.F. REYNOLDS
CHECKED	T.G. KITZ	CHECKED	T.G. KITZ
DATE	1-7-88	DATE	1-7-88
WEST VALLEY DEMONSTRATION PROJECT		WEST VALLEY DEMONSTRATION PROJECT	
VITRIFICATION POND FACILITY		VITRIFICATION POND FACILITY	
INSTRUMENT RACK 3W2-1A		INSTRUMENT RACK 3W2-1A	
PROJECT NO.	19-CWV-02275	PROJECT NO.	19-CWV-02275
SCALE	NONE	SCALE	NONE
DWG. NO.	905D-045	DWG. NO.	905D-045
SHEET NO.	4	SHEET NO.	4



905-D-045 S02



63-V-000 MILLER FILM CLEVER  
34103A  
63-V-000 MILLER AIR LIFT  
34103B  
63-V-000 MILLER SWAY CLEVER  
34103C  
63-V-000 MILLER EAST TROUGH CLEVER  
34103D  
63-V-000 MILLER LEVEL PRESSURE  
34103E

NO.	DATE	REVISION	DR	CH	APPROVED
B	06-13-89		TJK	RJA	RJA AUB REV
GENERAL REVISION INCLUDING TA 767					
C	09-30-89		PJZ	RJA	RJA T FSM FJR
GENERAL REVISION INCLUDING TA 801					
D	0-12-89	CR 1631			JRH
1	1-17-90	EDN 3059		BRV	PAN NEC
2	7/9/91	REV PER EDN 4341		AVN	HAB D.R.
3	9/22/92	GEN REV PER EDN 5200		SRG	HAB PAN
4	10/14/93	REV PER EDN 6250		DAK	HAB PAN
5	11/11/93	REV PER EDN 6891		HJC	JR / /

NOTES:

- NEW INSTRUMENTS & VALVES TO BE INSTALLED ON THIS EXISTING RACK ARE TO BE MARKED WITH A SINGLE ASTERISK (\*).
- TA 20 AIR SERVICE FROM HANDLES 6-1A 20-R-607. SEE DRAWING 905D-0518 D4R.

ANSTEC  
APERTURE  
CARD

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Aperture Card

CAUTION

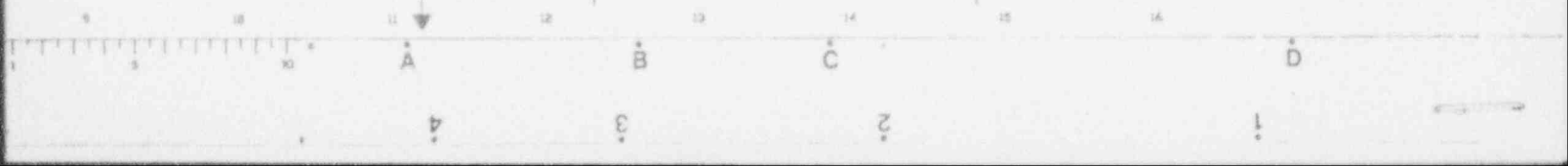
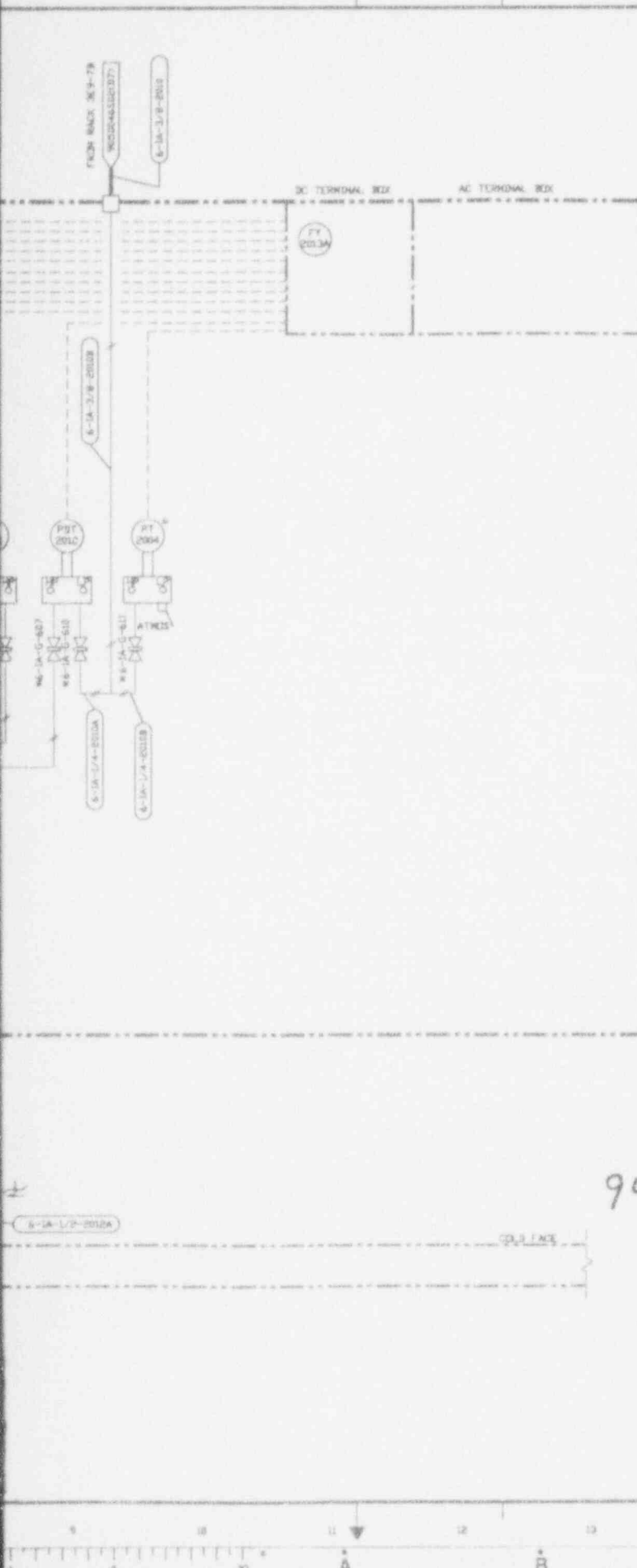
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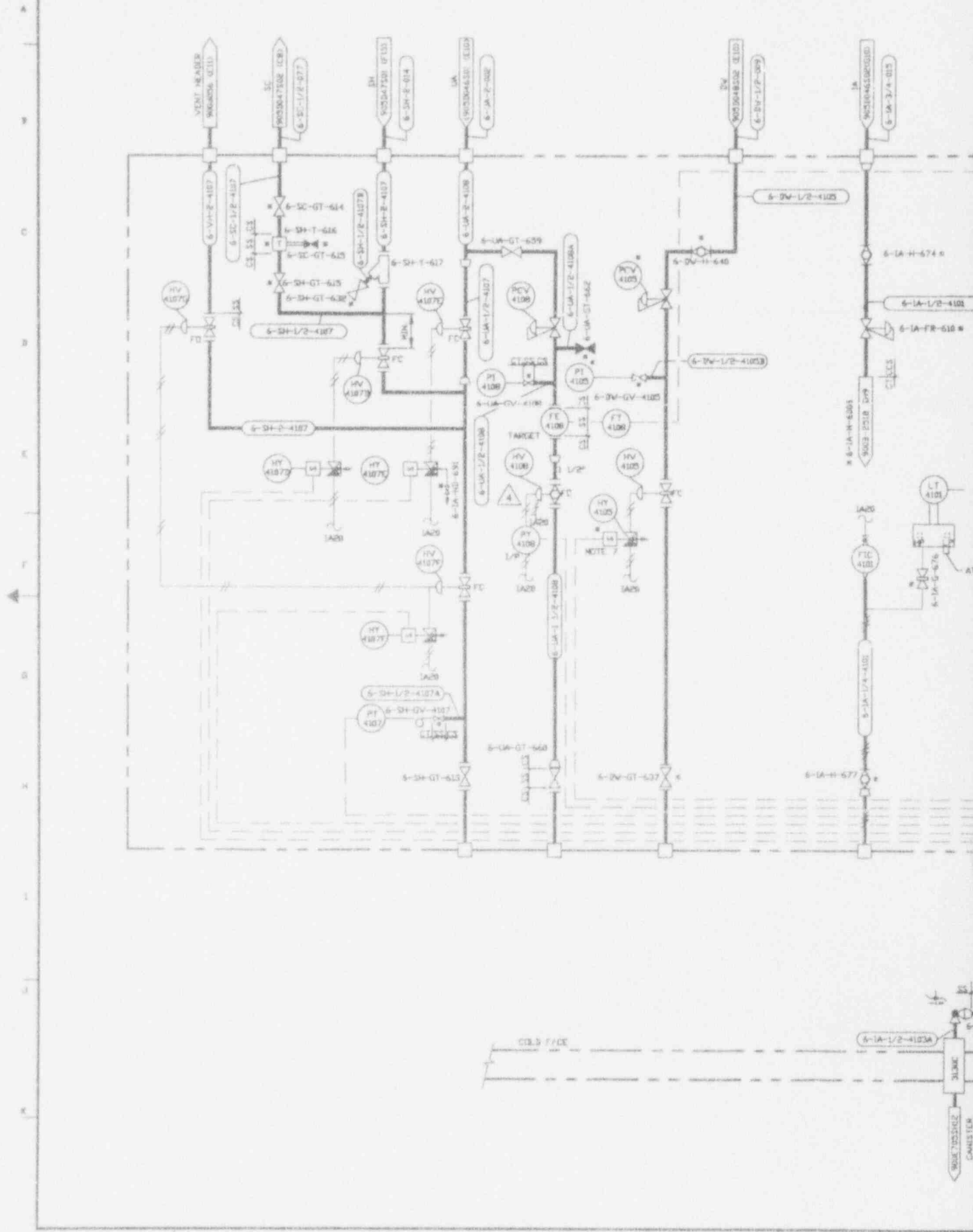
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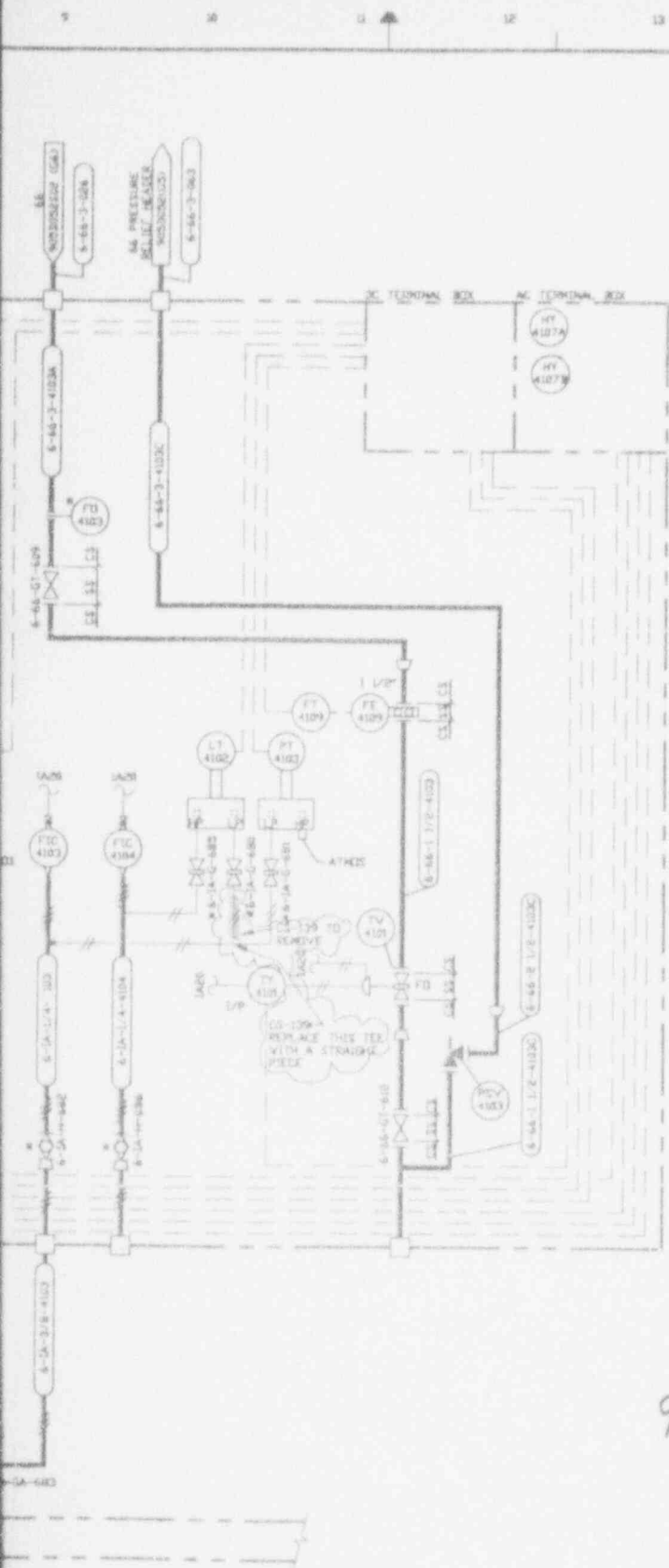
CHECK INSTRUMENT CONTROL  
FOR LATEST REVISION

9403140323-12

APPROVED BY: [Signature]		EASCO SERVICES INCORPORATED	
PROJECT NO. M.D. VETTING	06-47-88	A/E D/R NO. 2388	TASK ORDER 202
ENGINEER SUPERVISOR A.L. DUFFLOPP	06-47-88	WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK	
LEAD TECH. DRWG. S. WATH	06-47-88	WEST VALLEY DEMONSTRATION PROJECT	
DESIGNER A. ZILG	06-47-88	P & ID VITRIFICATION FACILITY INSTRUMENT RACK 3EB-7A	
DRAWER D.J. KEYNES	06-47-88	DATE 06-47-88	
T.J. KITZ	06-47-88	DRAWING NO. 905D-045	
DC-AC27-RINE 44175		SCALE NONE	REV. 5
PROJECT NO. 19-CWV-02275		SHEET NO. 305-D-045	SOP C
SUBCONTRACT NO.			
ISSUED FOR CONSTRUCTION			







NO.	DATE	REVISION	DR	CH	APPROVED
2	06-15-88		P.J.	R.L.	R.L. AJB
GENERAL REVISION INCLUDING TA 767					
C	02/20/88		P.J.	R.L.	R.L. FSX / J.C.D.
GENERAL REVISION					
B	04/13/89		R.L.	J.V.	R.L. F.S. / J.C.D.
GENERAL REVISION					
A	06/12/89	ER 1671			J.B.H.
1	01/25/90	EDN 3059	DRV	PAN	NEC
2	7/9/91	REV PER EDN 4341	AVN	HAB	D.B.P.
3	1/4/93	REV PER EDN 5331	GR	HAB	PAN
4	10/27/93	REV PER EDN 6891	MJC	J.F.	J.F.

**NOTES:**

- 1. NEW INSTRUMENTS & VALVES TO BE INSTALLED ON THIS EXISTING RACK ARE MARKED WITH SINGLE ASTERISK (\*).
- 2. 1A2S AIR SERVICE FROM MANFOLD 6-1A-M-6006. SEE DRAWING 900B-251R SH9.

**ANSTEC  
APERTURE  
CARD**

Also Available on  
Aperture Card

**CAUTION**

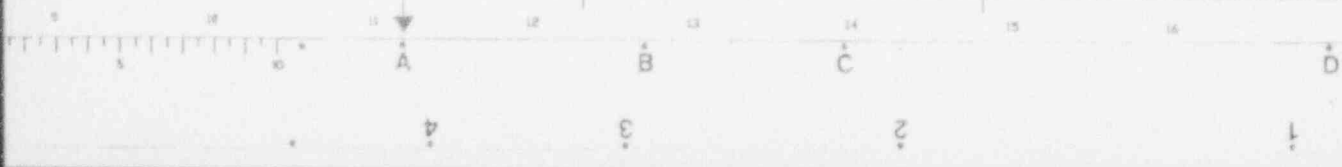
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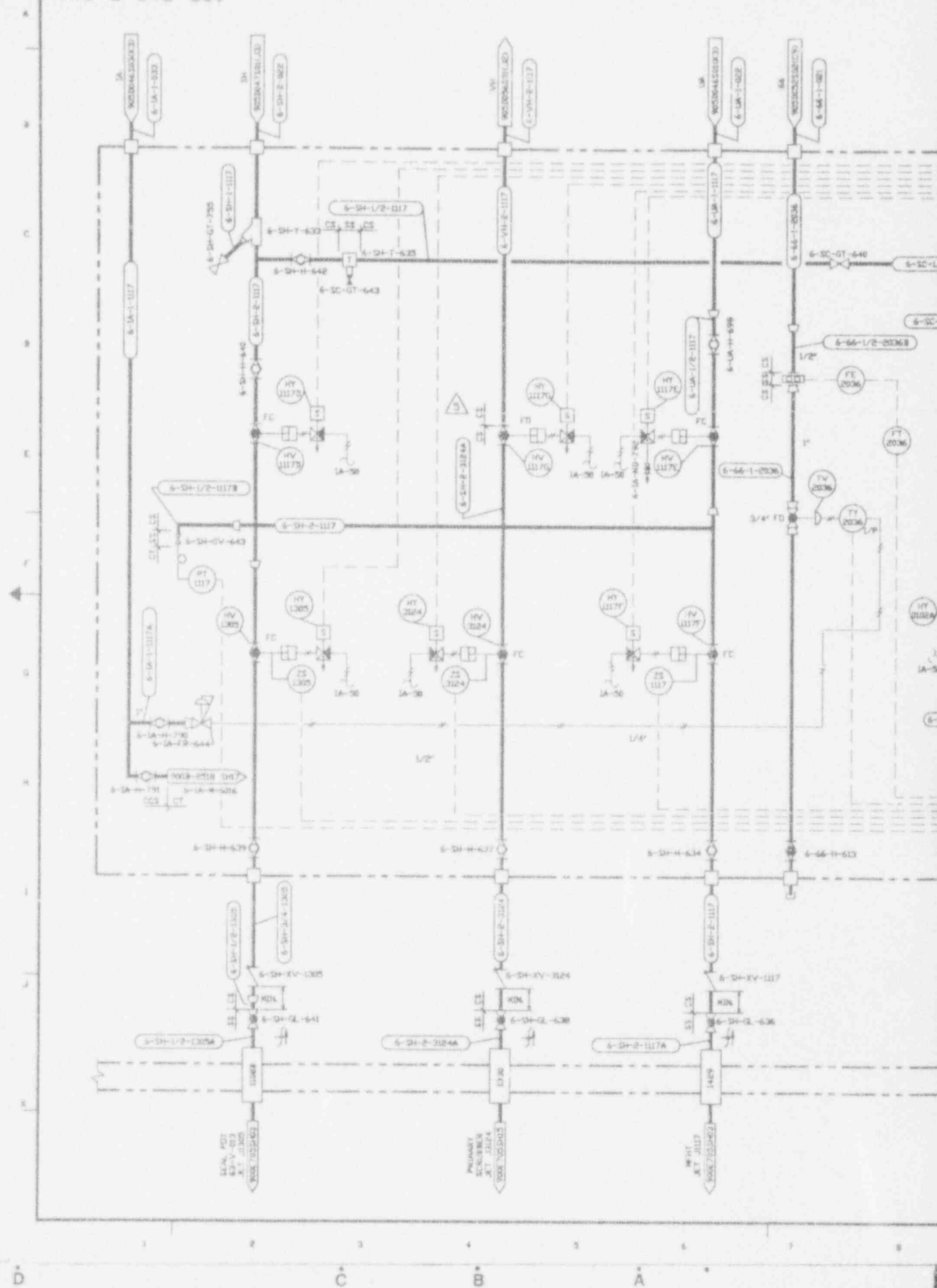
REV. 7 '83

CHECK DOCUMENT CONTROL  
FOR LATEST REVISIONS.

9403140323-73

FOR DRAWING INDEX SEE DRAWING NO.		EBS&O SERVICES INCORPORATED	
APPROVAL	DATE	PROJECT NO.	REV.
R.L. DINGAR	12/11/89	AVT 215-462388	TAKE SHOP 303
THOMAS (DR)		WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK	
ALL DIFF. (DR)	12/11/89		
LEAS (DR)		WEST VALLEY DEMONSTRATION PROJECT	
S. MATH	12/11/89	P & ID	
A. CULG	12/11/89	VITRIFICATION FACILITY	
CHORIS		INSTRUMENT RACK 2E9-8	
P.J. LEVKE	12/11/89	DRAWING NO. 905D-045	
DR.		REV. 4	
T.J. KITZ	12/11/89	SCALE 1" = 4'-0"	
TA-407-104-44109		DATE PLOTTED: 12/11/89	
PROJECT NO.		SHEET NO. 10 OF 10	
19-104V-26275			
REFERENCE NO.			
ISSUED FOR CONSTRUCTION		SCALE: NONE	







NO.	DATE	REVISIONS	DR	CH	APPROVED
8	8-12-88		TJK	RJA	RJA AJD KDV
GENERAL REVISIONS INCLUDING TA 767					
C	2-16-89		RJS	LJV	RJA FJK FJES
GENERAL REVISIONS					
8	8-12-89	CR 1631			JRH
1	12-15-89	EDN 3255	DRV	PAH	NEC
2	5/14/90	EDN 3600	LPK	DRS	DJR
3	7/19/91	REV PER EDN 4341	AVN	HAB	DJR
4	10/14/93	REV PER EDN 6250	DAK	HAB	DJR
5	11/11/93	REV PER EDN 6891	KJC	HFF	RLB

NOTES:

- LA-50 AIR SERVICE FROM MANIFOLD 6-1A-W-6016. SEE DETAIL ON 9009-2518 SH17.

ANSTEC  
APERTURE  
CARD

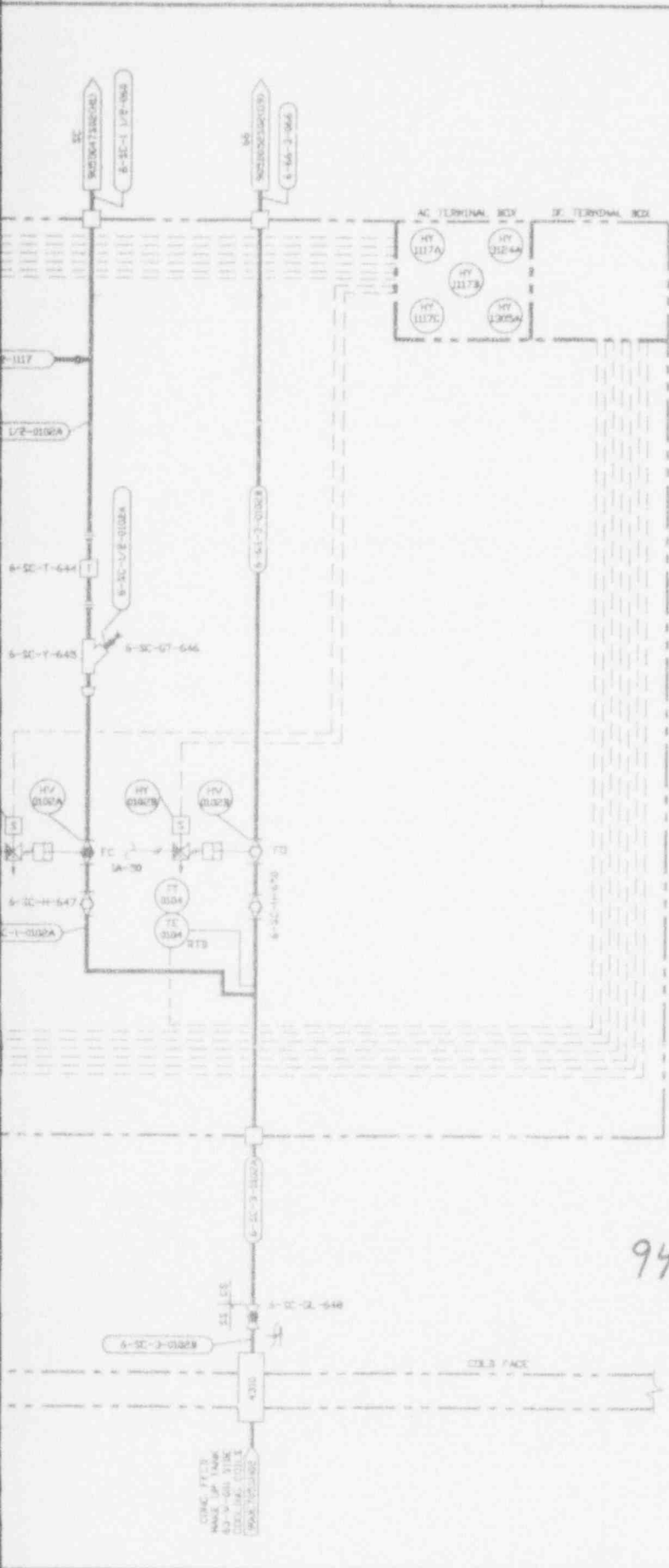
Also Available on  
Aperture Card

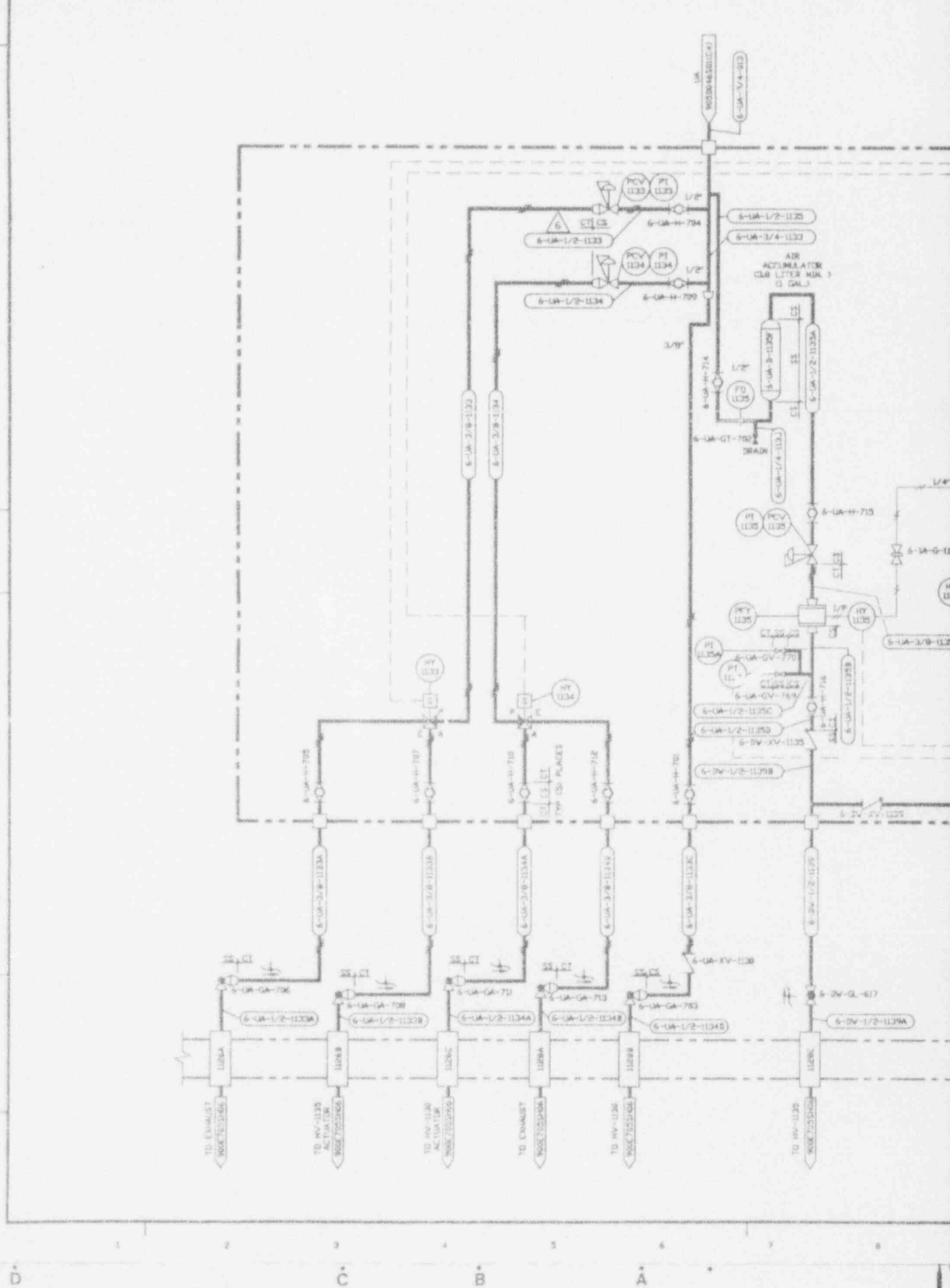
CAUTION  
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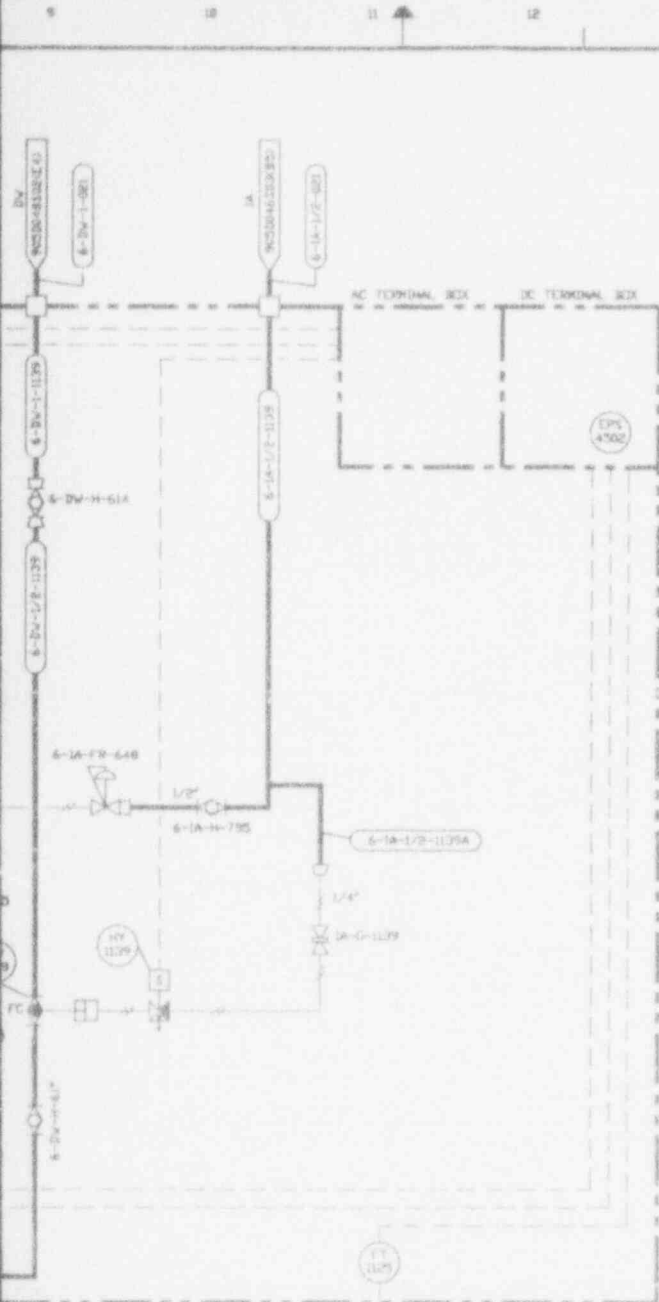
CHECK DOCUMENT FOR CONTROL  
FOR LATEST REVISION

9403140323-74

FOR DRAWING INDEX SEE DRAWING NO.		APPROVE WORK SET		EBSASCO SERVICES INCORPORATED	
PROJECT NO. 9403140323		DATE: 8-12-88		WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK	
DESIGNER: M. CHANDRANI		CHECKED: A.J. DUFFLIPP		WEST VALLEY DEMONSTRATION PROJECT	
DRAWN: T.J. KITE		SCALE: NONE		P & ID	
PROJECT NO. 9403140323		SHEET NO. 045		VITRIFICATION FACILITY INSTRUMENT RACK 3W7	
SUBCONTRACT NO.		DRAWING NO. 905D-045		REV. 5	
SCALE FOR CONSTRUCTION		SHEET NO. 905D-045 209 C			





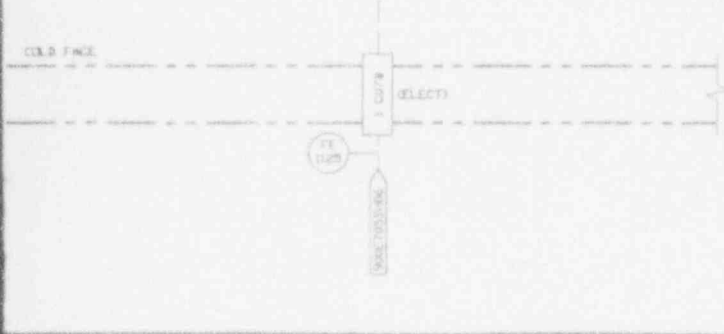


NO.	DATE	REVISIONS	BY	CHK	APPROVED
1	9-25-88		TJK	R.J.L.	R.J.L. A.J.D. R.D.W.
GENERAL REVISIONS INCLUDING TA 7A7					
2	2-16-89		R.S.	LTV	R.J.L. F.J.E. E.S.K.
GENERAL REVISIONS					
3	6-12-89	ER 1630			JRH
4	10-15-89	ECN 3255	DRV	PAN	REC
5	5/15/90	ECN 3593	LAK	FJK	DJR
6	7/5/91	REV PER ECN 4341	AVN	HAB	DJR
7	12/15/92	REV PER ECN 5297	H.J.L.	HAB	GGT
8	11/5/93	REV PER ECN 6286	BP	KQ	DAVE S
9	11/12/93	REV PER ECN 6893	M.K.C.		

ANSTEC  
APERTURE  
CARD

Also Available on  
Aperture Card

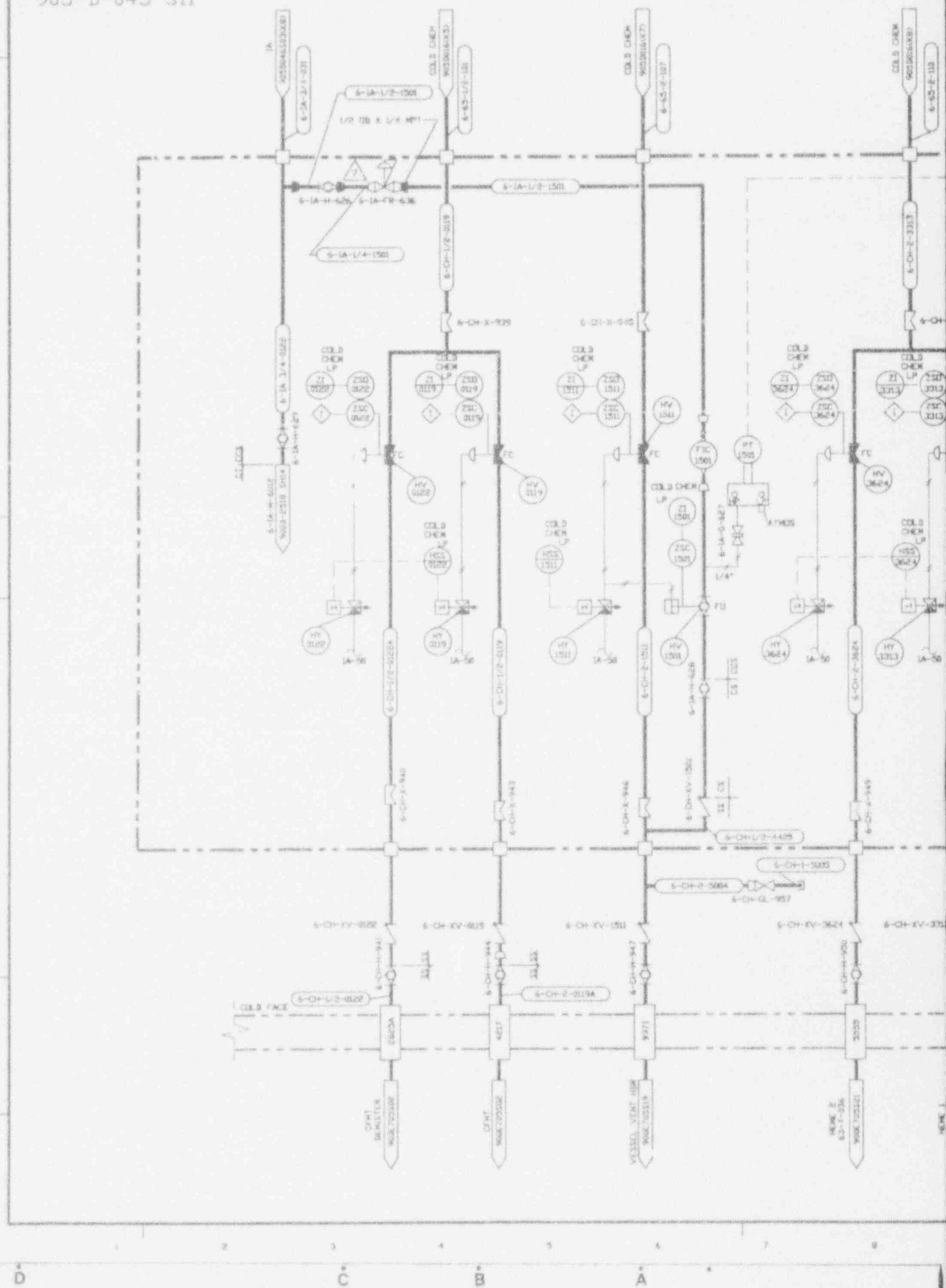
9403140323-15

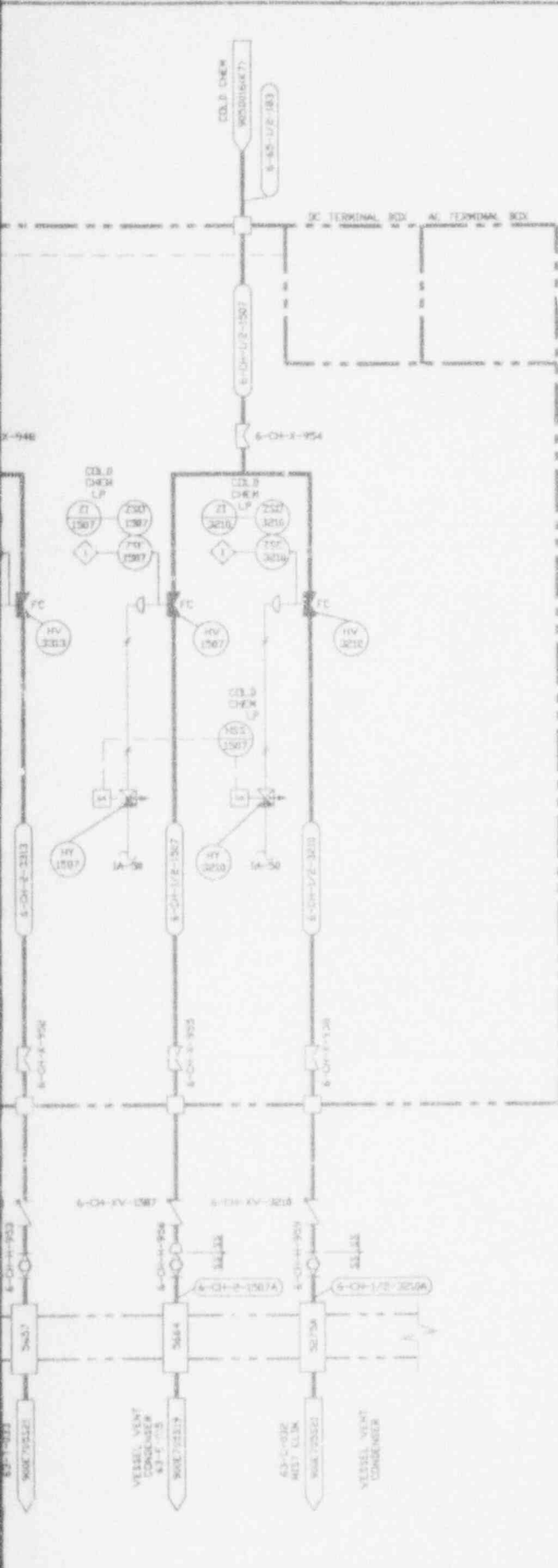


PROJECT NO:		EBS&O SERVICES INCORPORATED	
DESIGNER:		WEST VALLEY NUCLEAR SERVICES COMPANY, INC.	
CHECKER:		WEST VALLEY, NEW YORK	
DATE:		WEST VALLEY DEMONSTRATION PROJECT	
DRAWN:		P & ID	
TITLE:		VITRIFICATION FACILITY	
SCALE:		INSTRUMENT RACK 2NB	
SHEET NO.:		905D-045	
TOTAL SHEETS:		6	
DATE:		905-D-045 D18 G	

CAUTION  
CURRENT AS OF  
DATE 11/7/93  
CHECK DOCUMENT CONTROL  
FOR LATEST REVISION

905-D-045 S11





NO.	DATE	REVISION	DR	CH	APPROVED
B	03-18-88		TJK	R.L.	HIX 251 A.J.B. KDV
GENERAL REVISION PER TA 723 & EBAR 117					
C	06-15-88		TJK	R.L.	R.L. 221 A.J.B. KDV
GENERAL REVISION INCLUDING TA 767					
D	2-18-89		P.J.S.	J.W.	R.L. 221 F.J.E. J.P.C.
GENERAL REVISION					
E	6-12-89	DR 1631			JOH
F	12-15-89	EDN 3255	DRV	PAN	NEC
G	5/15/90	EDN 3593	LJK	F.J.K.	DJR
H	7/9/91	REV PER EDN 4341	AVN	H.A.S.	DJR
I	6/22/92	PER FOR V7-25-0120	TDC	HAB	EM
J	7/17/92	PER EDN 5211	SRC	HAB	DJR
K	09/10/92	PER EDN 5326	SRC	HAB	RVN
L	10/29/93	PER EDN 5891	M.J.C.	J.P.S.	K.C.

**NOTES:**

1. ALL CONTROL VALVES SHARING A TRANSFER LINE SHALL BE MOUNTED CLOSE TO THE TEE OFF TO THE SEPARATE BRANCHES.
2. ALL PANEL MOUNTED CONTROLS ON THIS SHEET WILL BE LOCATED ON A LOCAL CONTROL PANEL IN THE COLD CHEMICAL BLDG. THIS PANEL IS TO BE POWERED FROM THE VITRIFICATION BLDG. UPS.
3. ALL WIRING TO COLD CHEM LOCAL PANEL IS ROUTED THROUGH AC JUNCTION BOX.
4. DIAPHRAGM VALVE LOCATED IN HORIZONTAL PIPE RUN SHALL HAVE THEIR HANDWHEEL SO ORIENTED THAT THEY FORM AN ANGLE 20° ABOVE THE HORIZONTAL.
5. 1A-50 AIR SERVICE FROM MANIFOLD 5-1A-M-6022. SEE DETAIL ON 9008-2518 SH14.

**ANSTEC APERTURE CARD**

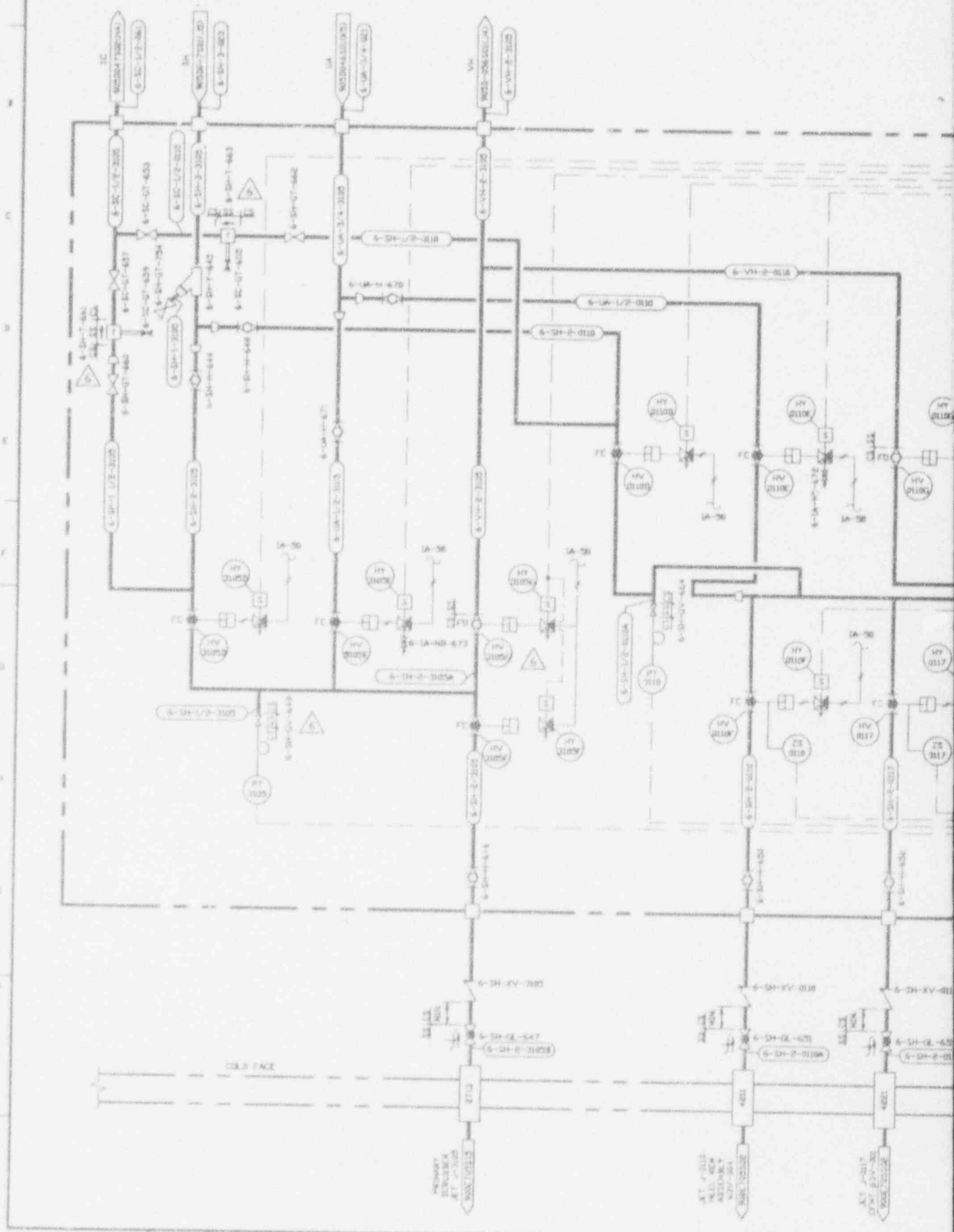
Also Available on Aperture Card

**CAUTION**  
 CURRENT AS OF  
 DEL 1 7 '93  
 CHECK DOCUMENT CONTROL  
 FOR LATEST REVISION

9403140323-16

FOR DRAWING INDEX SEE DRAWING NO.		EBSACO SERVICES INCORPORATED	
PROJECT NO.	3644	REV. DATE	NOV 20 1993
DATE	08-28-88	WEST VALLEY NUCLEAR SERVICES COMPANY, INC	WEST VALLEY, NEW YORK
DESIGNER	T.J. KITE	WEST VALLEY DEMONSTRATION PROJECT	
CHECKER	T.J. KITE	P & ID	
SCALE	AS SHOWN	VITRIFICATION FACILITY	
PROJECT NO.	905D-045	REV.	7
DRAWING NO.	905D-045	DATE	NOV 20 1993
SCALE	AS SHOWN	PROJECT NO.	905D-045

905-D-045 S13



D

C

B

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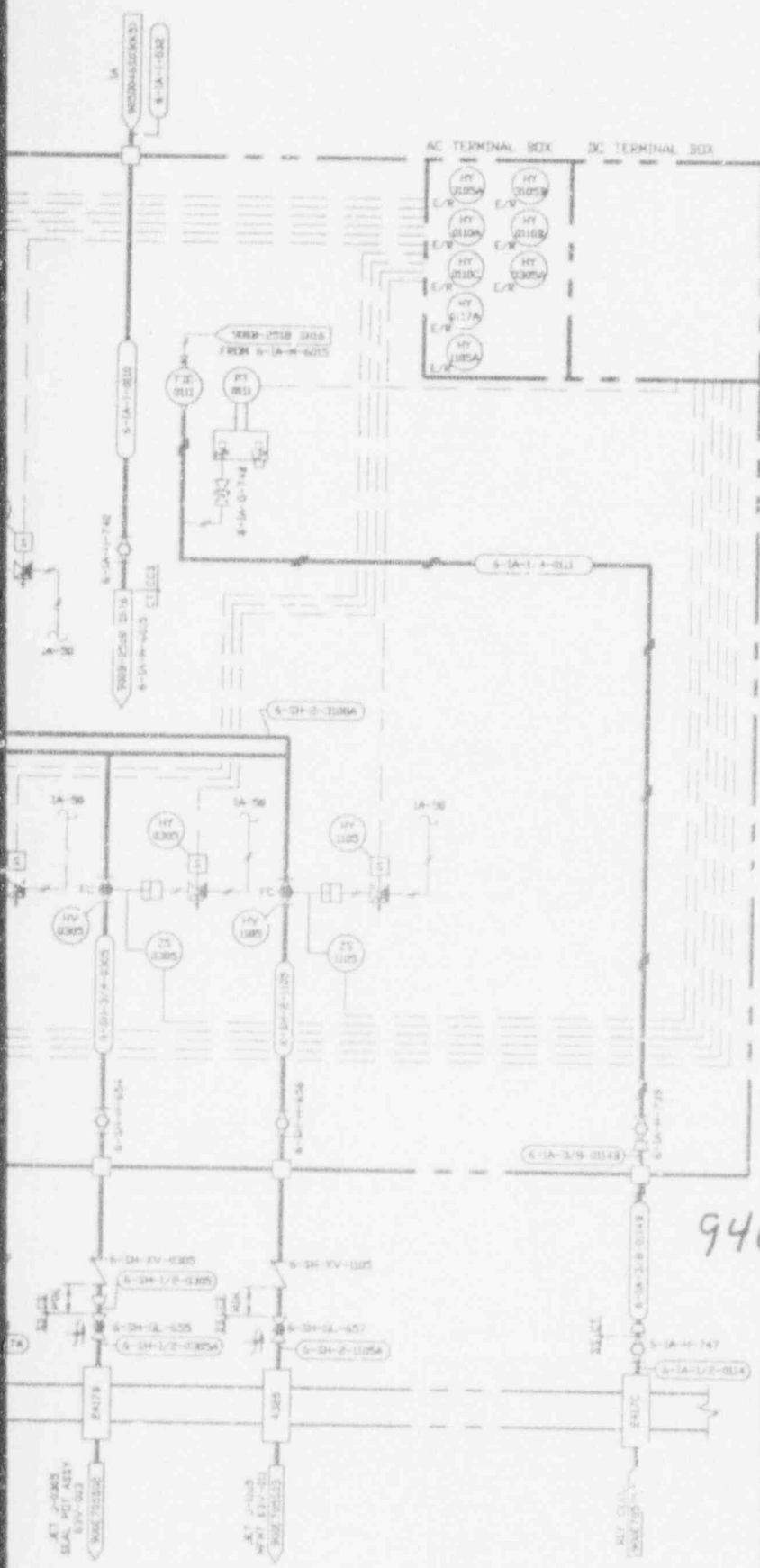
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3

4

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6



NO.	DATE	REVISIONS	DR	CH	APPROVED
2	8-15-88		BR	R.A.	R.L. A.J.D. M.D.V.
GENERAL REVISIONS INCLUDING TA 747					
0	2-16-89		R.S.	J.V.	R.A. F.K. P.E.S.
GENERAL REVISIONS					
3	6-12-89	CR 1633			BRH
1	12-15-89	EDN 3295	BRV	PAR	NEC
2	5/15/90	EDN 3593	LAR	F.J.K.	D.J.R.
3	7/9/91	REV PER EDN 4341	AVN	HAB	D.J.R.
4	11/19/91	REV PER E.N. 4560	AVN	HAB	D.J.R.
5	10-26/93	REV PER EDN 5811	D.J.R.	HAB	D.J.R.
6	11/11/93	REV PER EDN 6891	M.J.C.	J.P.S.	P.T.S.

NOTES:  
 1. 1A-50 AIR SERVICE FROM MANIFOLD 6-1A-R-6015. SEE DETAIL ON 9008-2518 SHEET 16.

**ANSTEC APERTURE CARD**  
 Also Available on Aperture Card

9403140323-17

CAUTION

CHECK DOCUMENT CONTROL FOR LATEST REVISION.

FOR DRAWING INDEX SEE ... NO. 16

APPROVED BY: [Signature]

PROJECT NO. 905D-043

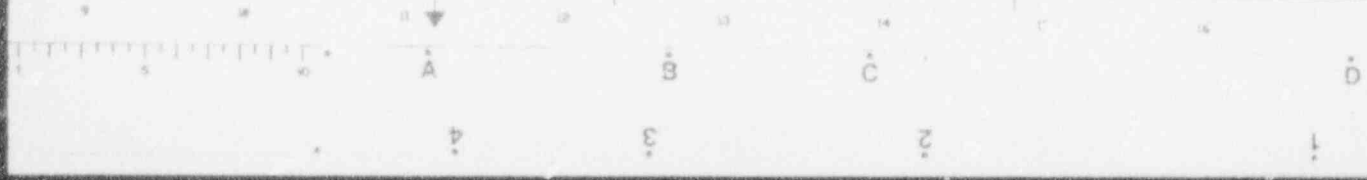
DATE: 10/25/88

WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK

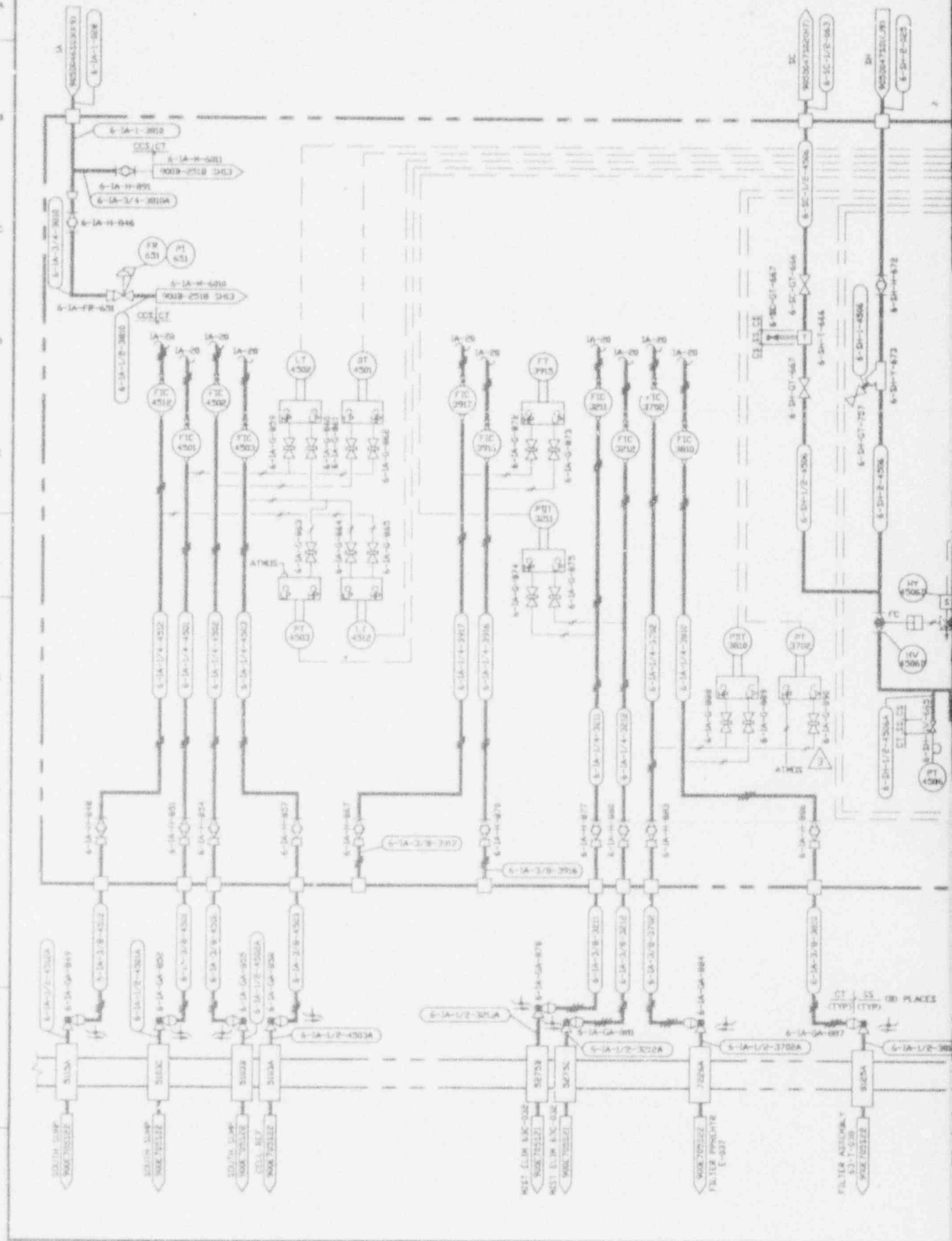
WEST VALLEY DEMONSTRATION PROJECT

P & ID VITRIFICATION FACILITY INSTRUMENT RACK 3WS

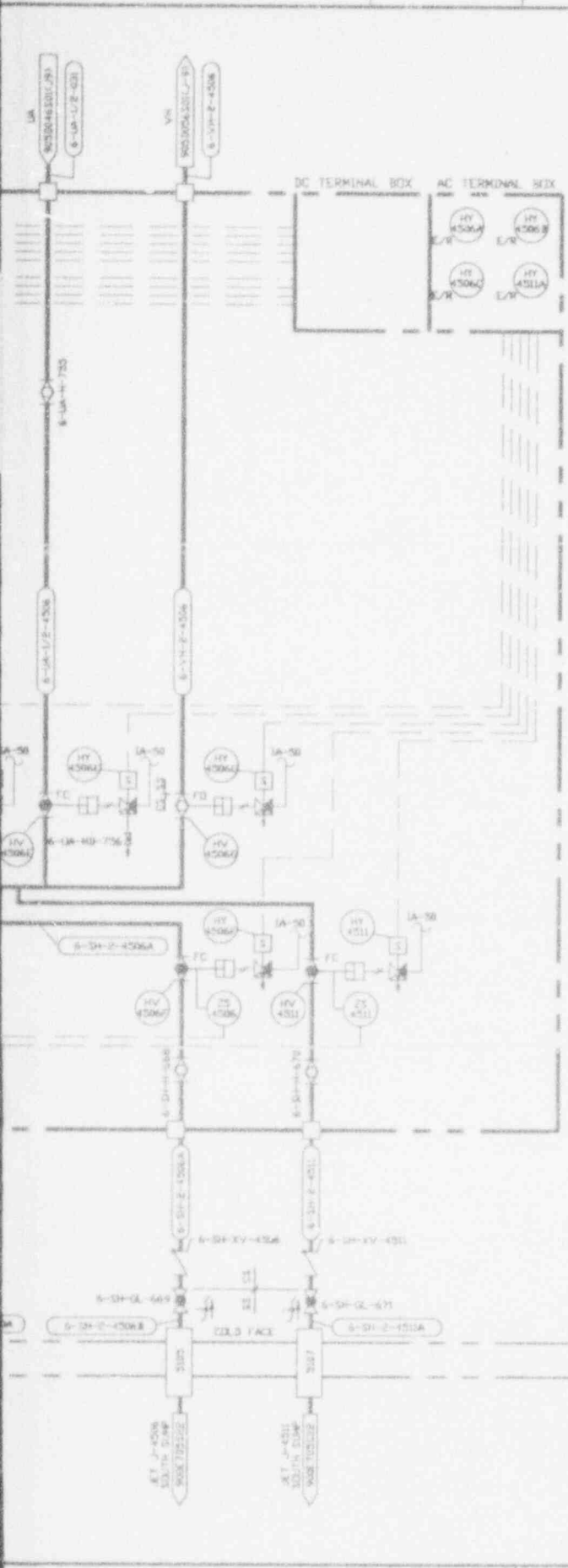
905D-043 6



905-D-045 S14







NO.	DATE	REVISIONS	DR	CH	APPROVED
B	8-15-89		BR	R.A.	H.L. A.J.D. HDV
GENERAL REVISIONS INCLUDING TA 767					
C	2-16-89		R.S.	J.V.	R.A. F.R. F.J.S.
GENERAL REVISIONS					
D	6-12-89	CR 1630			JOH
E	12-15-89	EDN 3255	DRV	PAN	NEC
F	7/9/91	REV PER EDN 4341	AWN	HAB	DJR
G	10/28/92	REV PER EDN 6891	MJC		

NOTES:

- 1A-20 AND 1A-50 AIR SERVICE FROM MANIFOLDS. 6-1A-M-6010 AND 6-1A-M-6011 SEE DETAIL ON 9008-2518 SHEET.

ANSTEC  
APERTURE  
CARD

Also Available on  
Aperture Card

CAUTION  
CURRENT AS OF

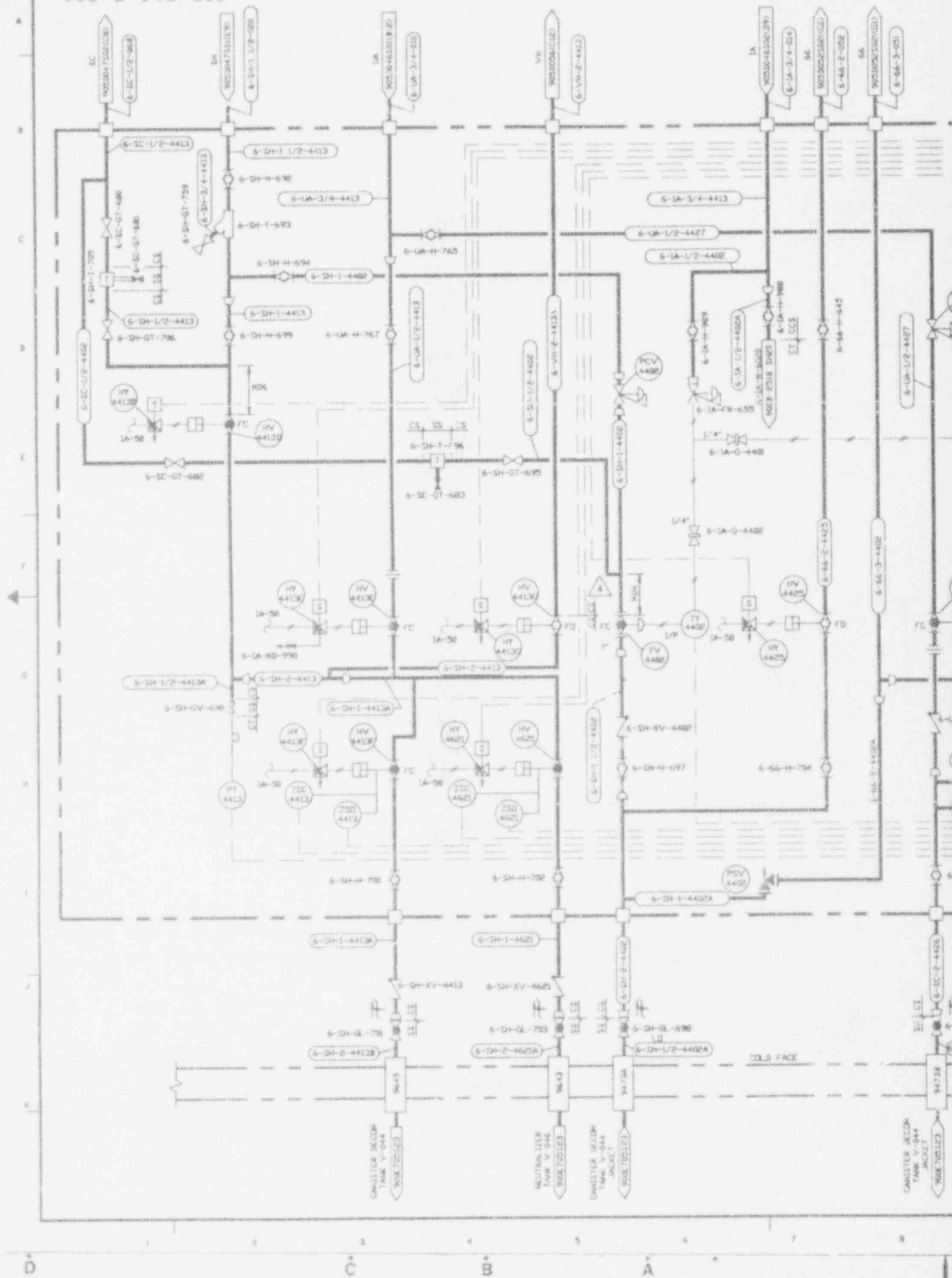
REV. 1/7/73

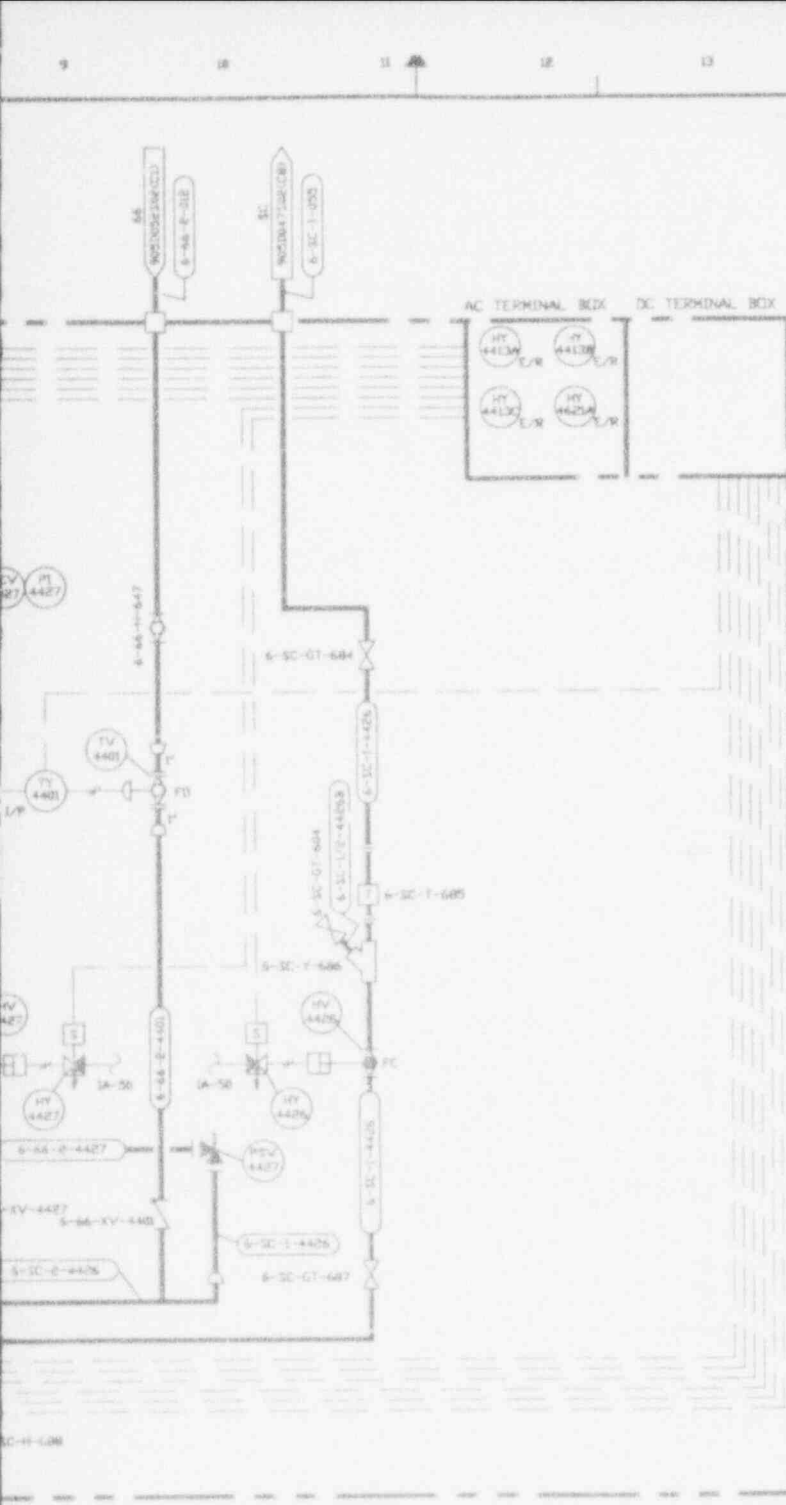
CHECK DOCUMENT CONTROL  
FOR LATEST REVISION.

9403140323-18

APPROVE WORK SET	EASCO SERVICES INCORPORATED		
DRAWN BY	DATE	SCALE	REV
PROJECT NO.	INDEX CODE NUMBER	DRAWING NO.	
SUBTRACT NO.	SCALE	SHEET NO.	
DATE FOR CONSTRUCTION	SCALE	SHEET NO.	
		9050-045	3
		905-0-045	314

905-D-045 S18





NOTES:

- 1A-50 AIR SERVICE FROM MANIFOLD 6-1A-N-6020. SEE DETAIL ON 9008-2510 5420.

ANSTEC  
APERTURE  
CARD

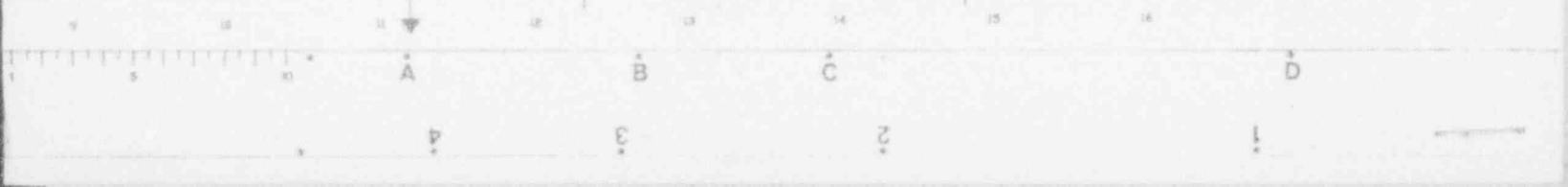
Also Available on  
Aperture Card

CAUTION

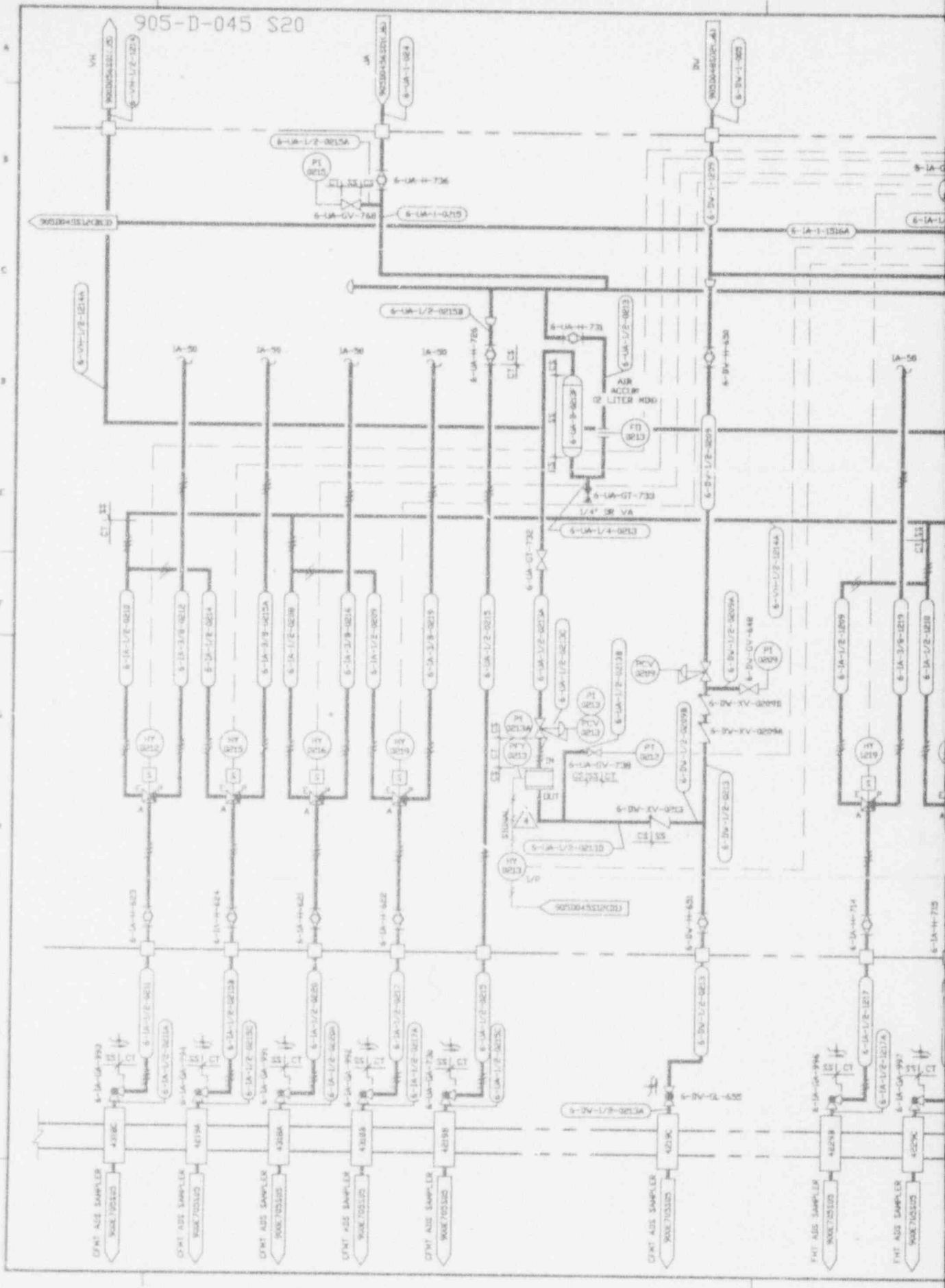
CHECK INSTRUMENT POSITION FOR LATEST REVISION

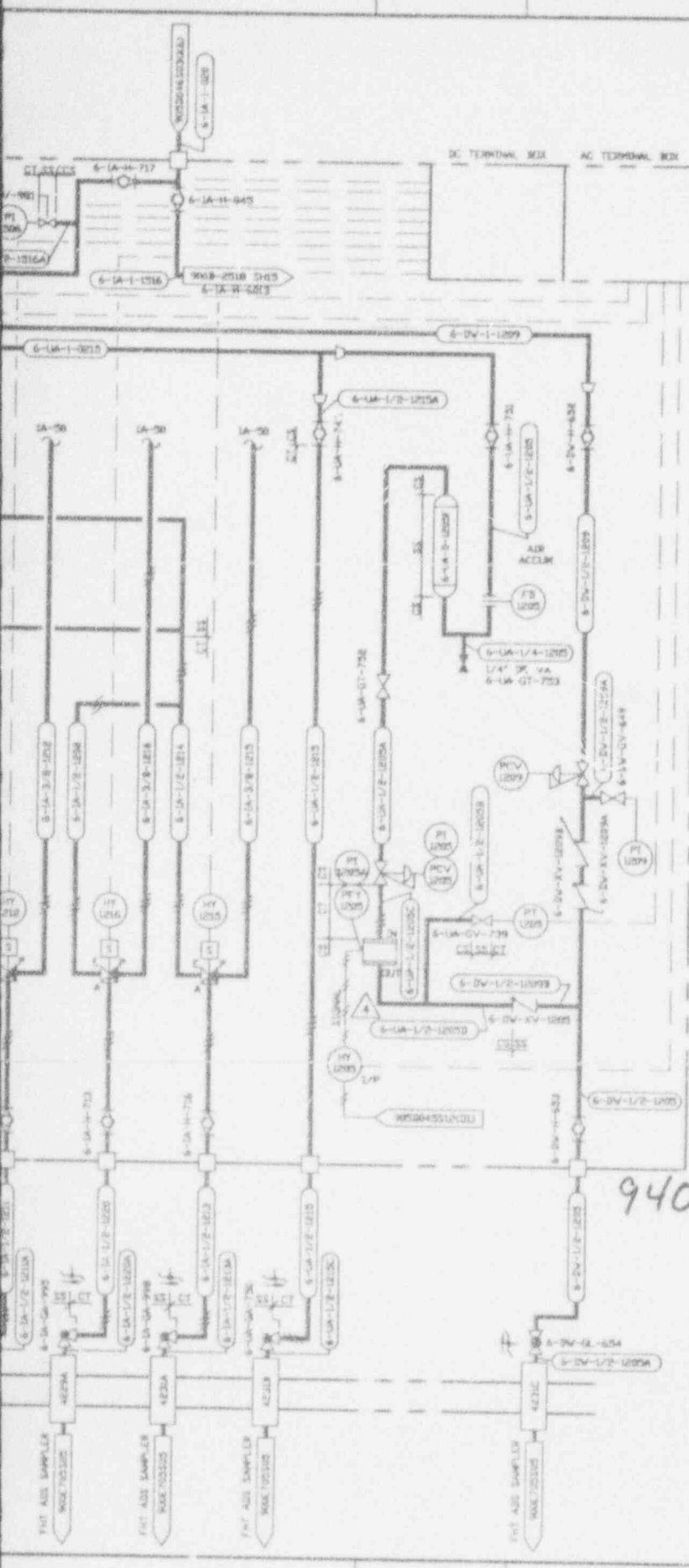
9403140323-19

TOP DRAWING INDEX SEE DRAWING NO.		EBS&D SERVICES INCORPORATED	
PROJECT NO.	94-00-00	REV. SHEET NO.	905D-045
DRAWN BY	R.L. LEVARD	DATE	04-08-88
CHECKED BY	T.J. KITTY	DATE	04-08-88
WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK			
WEST VALLEY DEMONSTRATION PROJECT			
P & ID			
VITRIFICATION FACILITY			
INSTRUMENT RACK-3E10			
PROJECT NO.	94-00-00	DRAWING NO.	905D-045
SUBCONTRACT NO.		REV.	4
ISSUED FOR CONSTRUCTION	SCALE: NONE	SHEET NO.	518



905-D-045 S20





REL.	DATE	REVISIONS	BY	CHK.	APPROVED
3	2-16-99		P.S.	J.V.	R.L. F.E. F.M.S.
GENERAL REVISION					
2	6-12-99	ER 1631			JOH
1	12-15-99	EDN 2055	DJV	PAN	NEC
2	5/15/00	EDN 3593	LJK	F.K.	DJR
3	7/9/91	REV PER EDN 4341	AVN	HAB	DJR
4	10/28/93	REV PER EDN 6891	HJC	PTB	V.S.

**NOTES:**

1-1A-50 AIR SERVICE FROM MANIFOLD 6-1A-N-6013. SEE DETAIL ON 905B-2510 5103.

**ANSTEC  
APERTURE  
CARD**

Also Available on  
Aperture Card

**CAUTION**

REV. 1 7/83

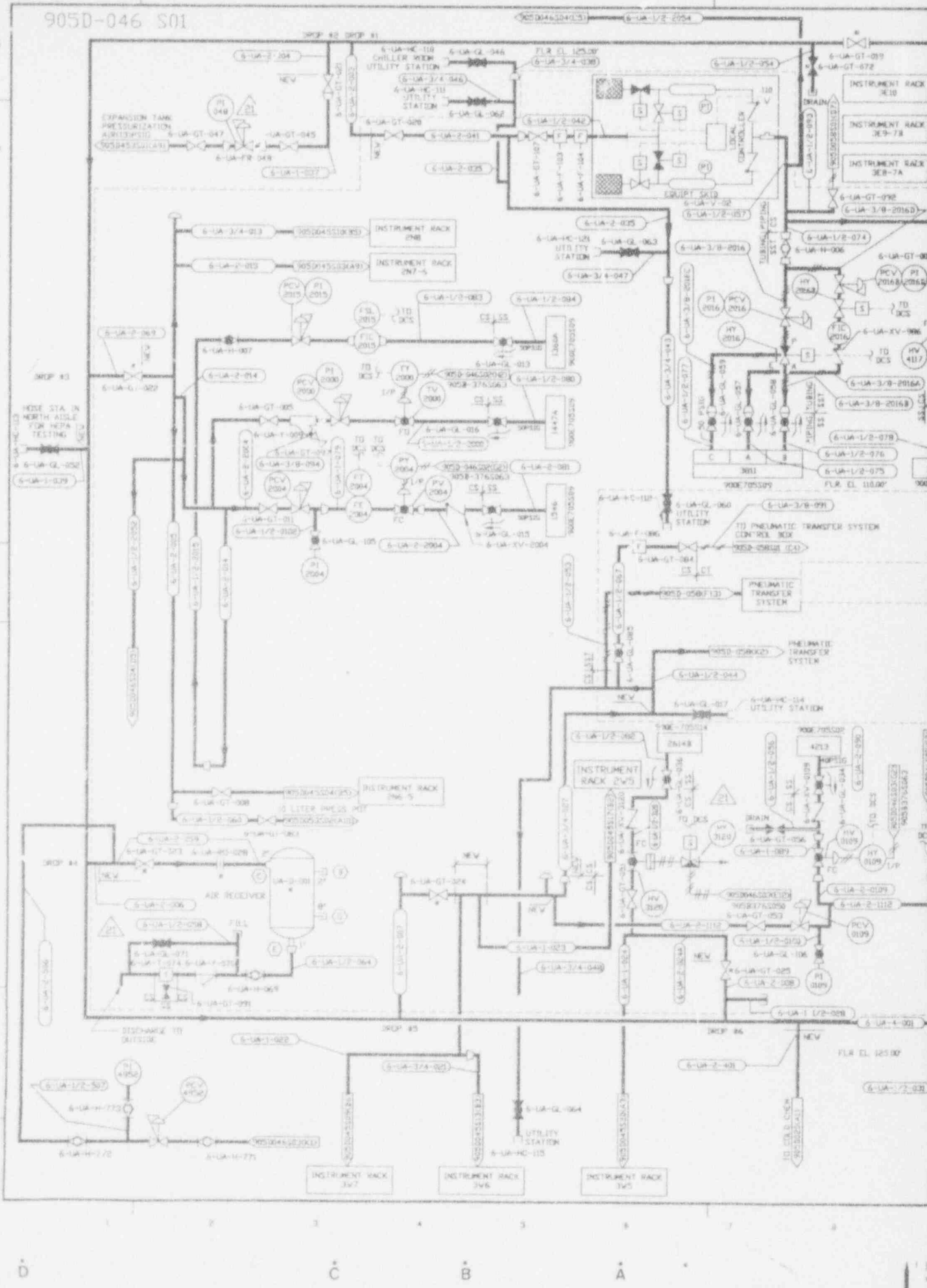
CHECK DOCUMENT CONTROL  
FOR LATEST REVISION.

9403140323-20

WORK THIS DRAWING WITH 905-D-045 512

FOR DRAWING INDEX SEE DRAWING NO.		EBASCO SERVICES INCORPORATED	
APPROVED DATE:	11/15/99	PROJECT NO:	WV D/2 H/2000
DRAWN BY:	M/S VERNANT 06/15/99	DATE:	FOR INSTR. SHEET
CHECKED BY:	A.J. BURLIN 06/15/99	WEST VALLEY NUCLEAR SERVICES COMPANY, INC. WEST VALLEY, NEW YORK	
REVISION:	06/15/99	WEST VALLEY DEMONSTRATION PROJECT P & ID VITRIFICATION FACILITY INSTRUMENT RACK 3WS SHEET 2	
PROJECT NO:	WV D/2 H/2000	SCALE:	AS SHOWN
DATE:	11/15/99	DWG. NO.:	905D-045 4
CONTRACT NO.:		SHEET NO.:	905-D-045 520 3

905D-046 S01



D

C

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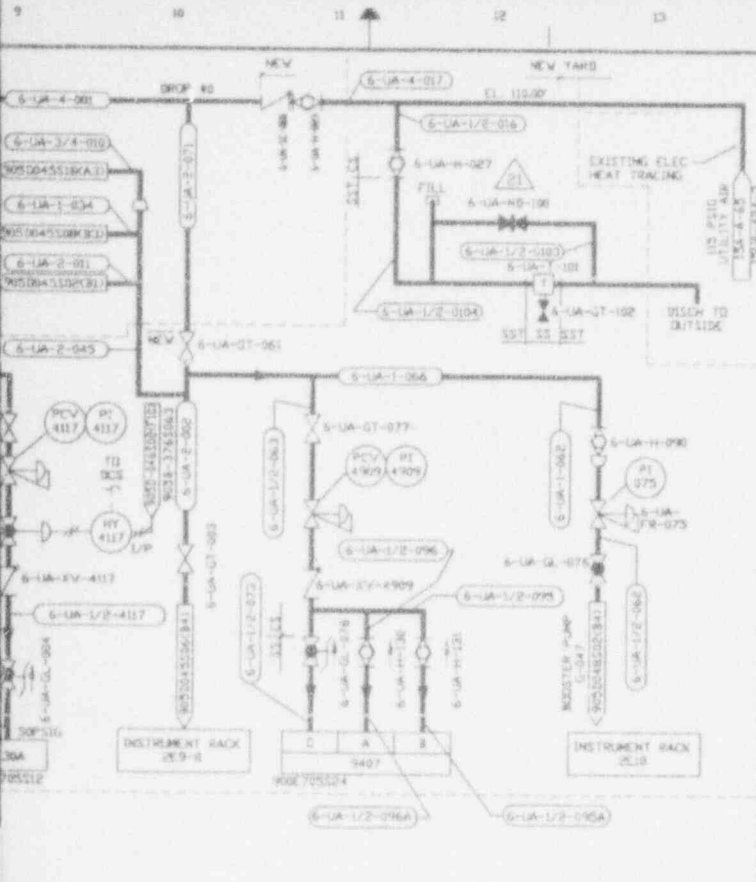
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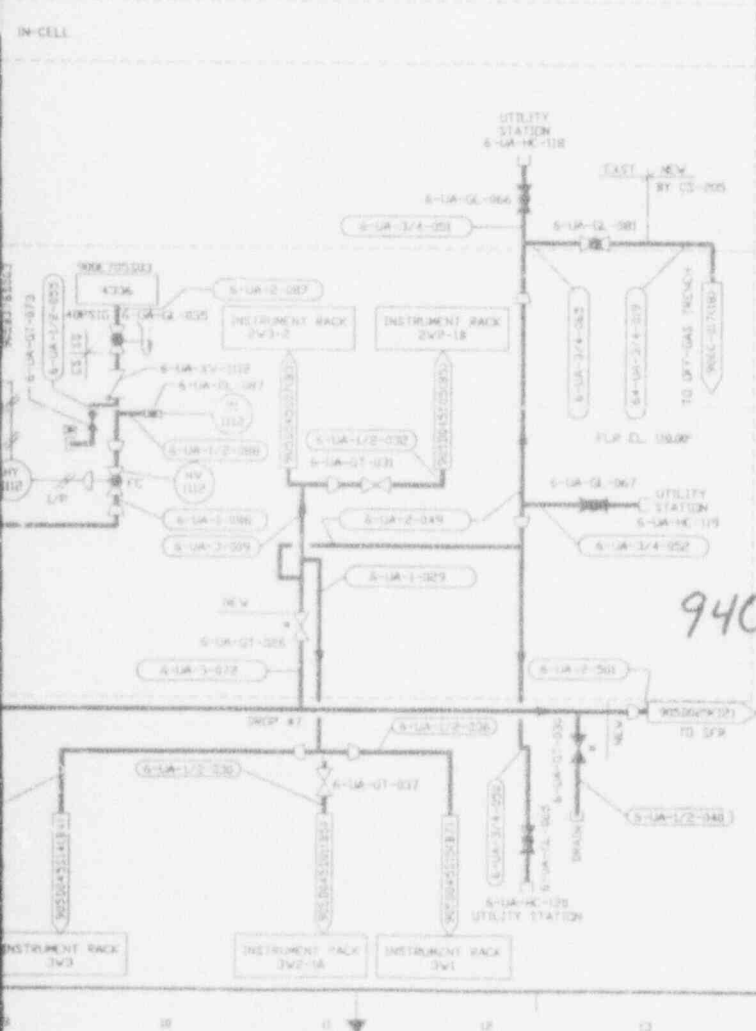
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NO.	DATE	REVISIONS	DR	CH	APPROVED
8	8/27/94		DR	P.K.	R.J.L. AC F.S.M. MDV
GENERAL REVISION					
C	5-29-95		DR	AC	P.J. AC F.L.S.
GENERAL REVISION					
0	7-13-89	ER1646			JRY
1	3-13-90	REVISED PER EDN 3303	PEL	DPS	DJR
2	5-0-90	REVISED PER EDN 3633	PEL	DPS	DJR
3	6-1-90	REVISED PER EDN 3669	CTC		
4	7-11-90	REVISED PER EDN 3780	BP	HAB	VAD
5	10-22-90	REVISED PER EDN 3978	JHS	HAB	DJR
6	11-29-91	REVISED PER EDN 4102	RJR	HAB	DJR
7	03/28/91	REVISED PER EDN 4197	BAR	HAB	DJR
8	11/25/91	REVISED PER EDN 4376	DAK	HAB	DJR
9	3/30/92	REVISED PER EDN 4937	LXR	HAB	DJR
10	5/9/92	REVISED PER EDN 5044 REVISED PER EDN 5081	OGA	DRS	DJR
11	6/29/92	REVISED PER EDN 5198	JLH	HAB	DJR
12	09/21/92	GEN REV PER EDN 5200	SRG	HAB	PAN
13	10/16/92	REVISED PER EDN 5259	SRD	DRS	DR
14	1/4/93	REVISED PER EDN 5331	DM	DRS	RWH
15	1/21/93	REVISED PER EDN 5791	DM	DRS	DJR
16	3/25/93	REVISED PER EDN 3443	SKD	JMS	PAN
17	03/09/93	REVISED PER EDN 5986	SRG	HAB	PAN
18	03/09/93	REVISED PER EDN 6054	SRG	HAB	PAN
19	10/7/93	REVISED PER EDN 6830	AAJ	HAB	PAN
20	10/14/93	REVISED PER EDN 6250	DAK	DRS	RWH
21	11/02/93	REVISED PER EDN 6981	AJD		

**ANSTEC  
APERTURE  
CARD**

Also Available on  
Aperture Card



- REFERENCE DRAWINGS:**
- SYMBOLS, NOTES & LEGEND 905-D-1306
  - SYMBOLS, NOTES & LEGEND 905-D-1307
  - SYMBOLS, NOTES & LEGEND 905-D-1308
  - P & ID VITRIFICATION FACILITY 905-D-009
  - UTILITY & INSTRUMENT AIR SYS 905-D-020
  - P & ID COLD CHEMICAL 905-D-020
  - UTILITY & INSTRUMENT AIR SYS 905-D-020
  - INSTRUMENT INSTALLATION DETAILS 905-B-076

- NOTES:**
- 1. A SINGLE ASTERISK (\*) INDICATES EXISTING VALVES AND EQUIPMENT TO BE RETAINED.

9403140323-21

CAD DRAWING—DO NOT REVISE THIS ORIGINAL

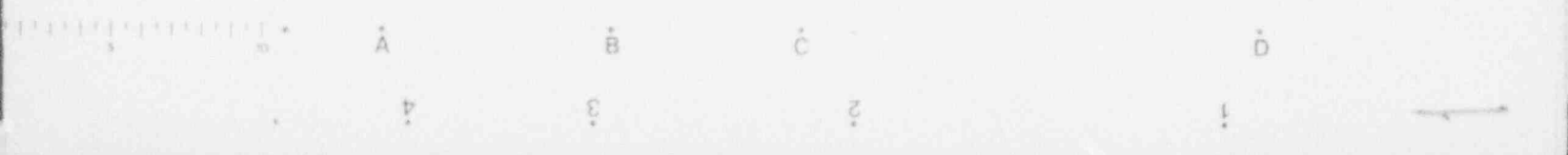
**CAUTION**  
CURRENT AS OF

JUL 7 '93

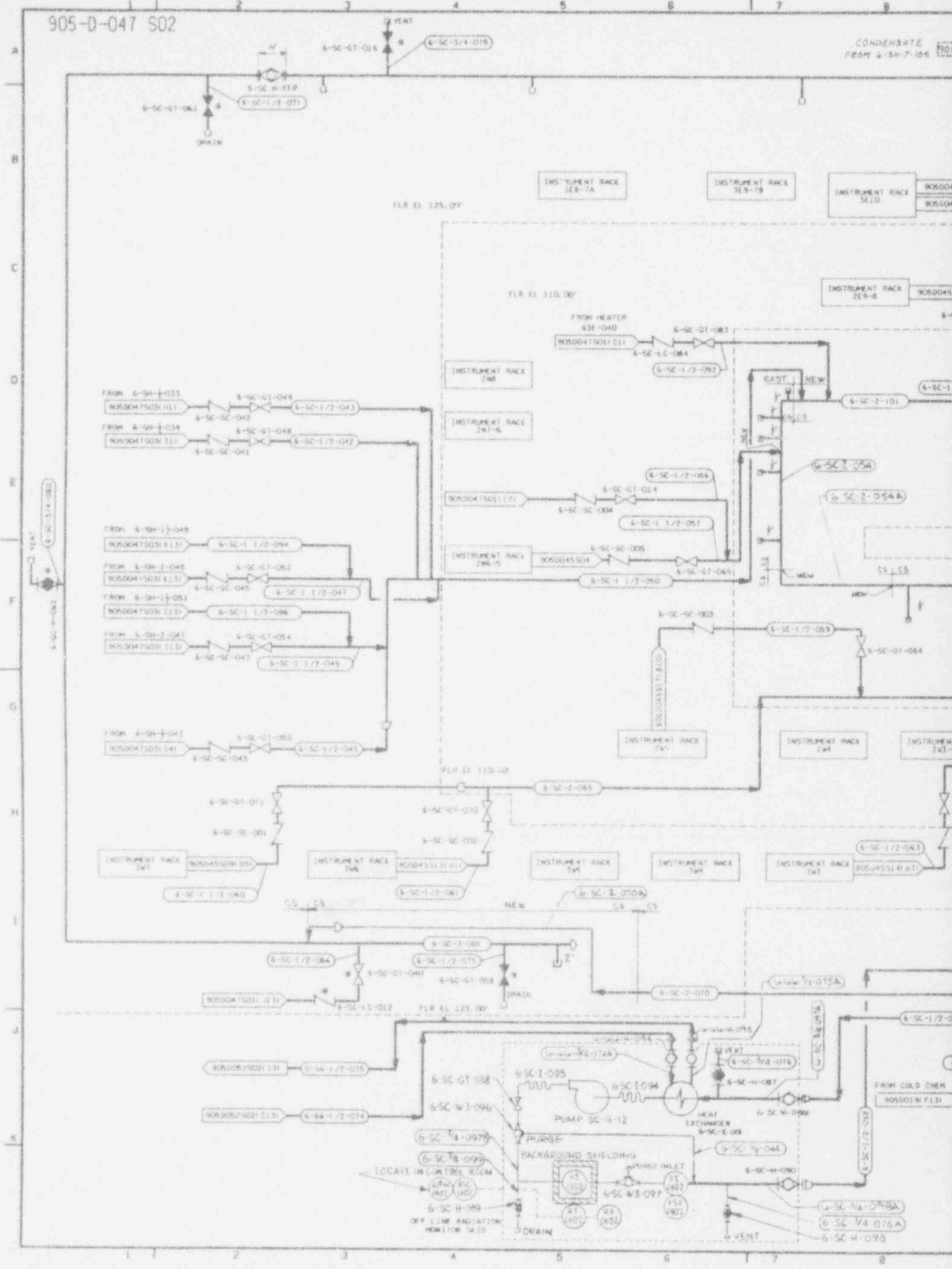
CHECK DOCUMENT CONTROL  
FOR LATEST REVISION

FOR DRAWING INDEX SEE DRAWING NO.

REV	DATE	BY	CHKD	APP'D	REVISION
1	08-28-94	R.J. LEVRO	R.J. LEVRO		
2	09-08-94	R.J. LEVRO	R.J. LEVRO		
3	09-08-94	R.J. LEVRO	R.J. LEVRO		
4	09-08-94	R.J. LEVRO	R.J. LEVRO		
5	09-08-94	R.J. LEVRO	R.J. LEVRO		
6	09-08-94	R.J. LEVRO	R.J. LEVRO		
7	09-08-94	R.J. LEVRO	R.J. LEVRO		
8	09-08-94	R.J. LEVRO	R.J. LEVRO		
9	09-08-94	R.J. LEVRO	R.J. LEVRO		
10	09-08-94	R.J. LEVRO	R.J. LEVRO		
11	09-08-94	R.J. LEVRO	R.J. LEVRO		
12	09-08-94	R.J. LEVRO	R.J. LEVRO		
13	09-08-94	R.J. LEVRO	R.J. LEVRO		
14	09-08-94	R.J. LEVRO	R.J. LEVRO		
15	09-08-94	R.J. LEVRO	R.J. LEVRO		
16	09-08-94	R.J. LEVRO	R.J. LEVRO		
17	09-08-94	R.J. LEVRO	R.J. LEVRO		
18	09-08-94	R.J. LEVRO	R.J. LEVRO		
19	09-08-94	R.J. LEVRO	R.J. LEVRO		
20	09-08-94	R.J. LEVRO	R.J. LEVRO		
21	09-08-94	R.J. LEVRO	R.J. LEVRO		



905-D-047 S02



CONDENSATE FROM 4-SH-7-105

FROM HEATER 43E-040

6-SC-1/2-043

6-SC-1/2-042

6-SC-1/2-041

6-SC-1/2-040

6-SC-1/2-039

6-SC-1/2-038

6-SC-1/2-037

6-SC-1/2-036

6-SC-1/2-035

6-SC-1/2-034

6-SC-1/2-033

6-SC-1/2-032

6-SC-1/2-031

6-SC-1/2-030

6-SC-1/2-029

6-SC-1/2-028

6-SC-1/2-027

6-SC-1/2-026

6-SC-1/2-025

6-SC-1/2-024

6-SC-1/2-023

6-SC-1/2-022

6-SC-1/2-021

6-SC-1/2-020

6-SC-1/2-019

6-SC-1/2-018

6-SC-1/2-017

6-SC-1/2-016

6-SC-1/2-015

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6-SC-1/2-009

6-SC-1/2-008

6-SC-1/2-007

6-SC-1/2-006

6-SC-1/2-005

6-SC-1/2-004

6-SC-1/2-003

6-SC-1/2-002

6-SC-1/2-001

6-SC-1/2-000

6-SC-1/2-000A

6-SC-1/2-000B

6-SC-1/2-000C

6-SC-1/2-000D

6-SC-1/2-000E

6-SC-1/2-000F

6-SC-1/2-000G

6-SC-1/2-000H

6-SC-1/2-000I

6-SC-1/2-000J

6-SC-1/2-000K

6-SC-1/2-000L

6-SC-1/2-000M

6-SC-1/2-000N

6-SC-1/2-000O

6-SC-1/2-000P

6-SC-1/2-000Q

6-SC-1/2-000R

6-SC-1/2-000S

6-SC-1/2-000T

6-SC-1/2-000U

6-SC-1/2-000V

6-SC-1/2-000W

6-SC-1/2-000X

6-SC-1/2-000Y

6-SC-1/2-000Z



NO.	DATE	REVISION	DR	CH	APPROVED
8	06-21-88		FFA	AAL	JLR
GENERAL REVISION					
9	6-28-89		AAL	W.C.	JLR
GENERAL REVISION					
10	7/15/89	REV. PER ECN 5967	LOW	WE	JLR
11	11-10-93	REV PER ECN 6161	PD	HTS	JLR
12	2-14-93	REV'D PER ECN 7162	CM	JLR	JLR
4	5-9-90	OPEN REVISED ECN 5682	CM	JLR	JLR
5	7-12-90	ECN 3780	BP	WAD	WAD
6	10-18-90	REV PER ECN 3975	CGR	WAD	JLR
7	1-30-91	REV'D PER ECN 4102	RBH	WAD	JLR
3	6-24-91	REV PER ECN 4340	CM	WAD	JLR
1	9-25-92	REV ECN 5259	WAD	JLR	JLR

NOTES, SYMBOLS & LEGEND 900-0-1306  
 NOTES, SYMBOLS & LEGEND 900-0-1307  
 NOTES, SYMBOLS & LEGEND 900-0-1308

REFERENCE DRAWINGS:

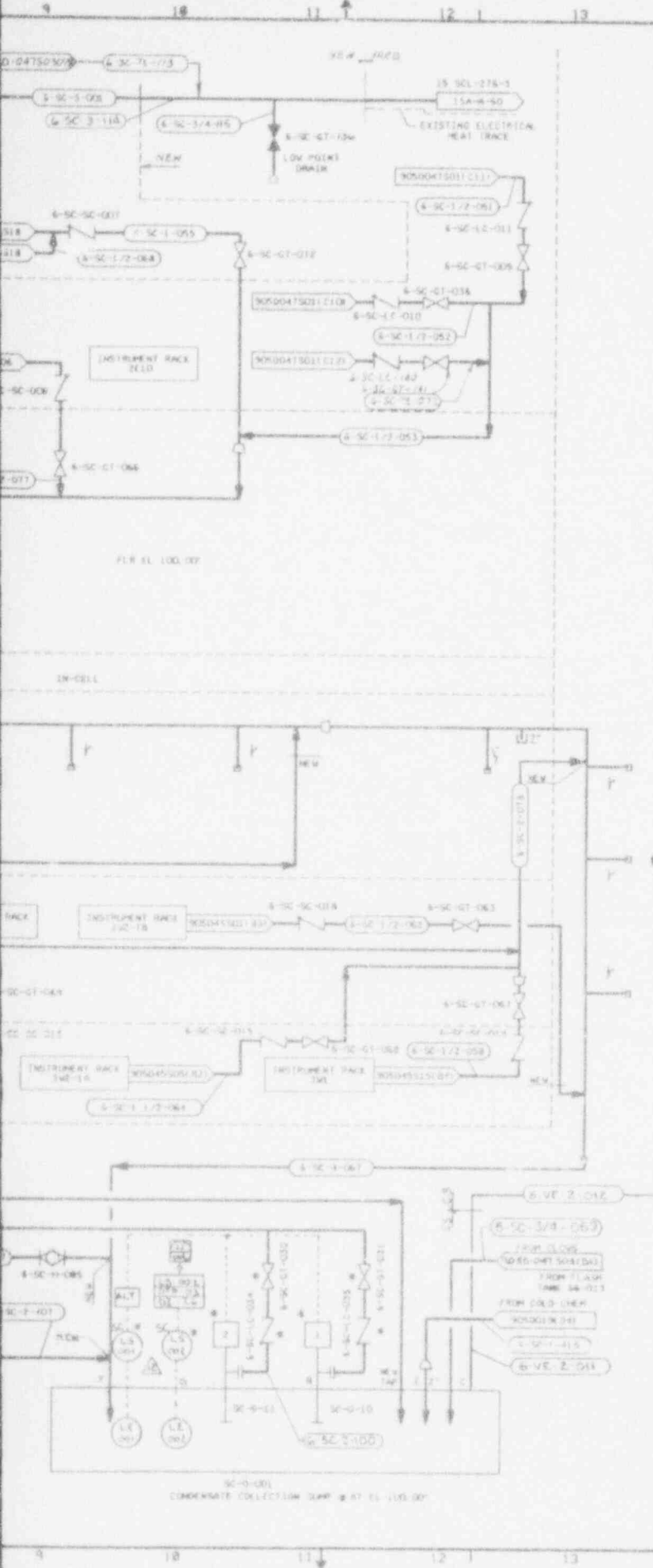
NOTES:

- A SINGLE ASTERISK (\*) INDICATES EXISTING VALVES AND EQUIPMENT TO BE RETAINED.
- FIR COND. SUMP PUMP CWD. SEE DRAWING 905B-305 5H136

ANSTEC  
 APERTURE  
 CARD

Also Available on  
 Aperture Card

9403140323-22



WV APPROVAL

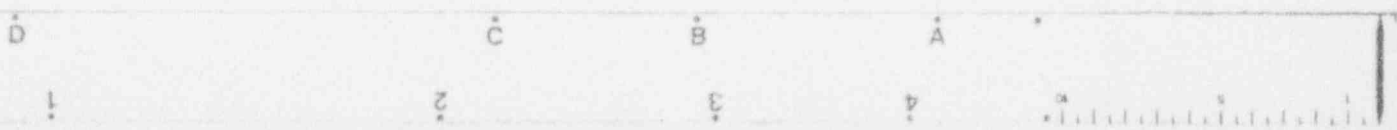
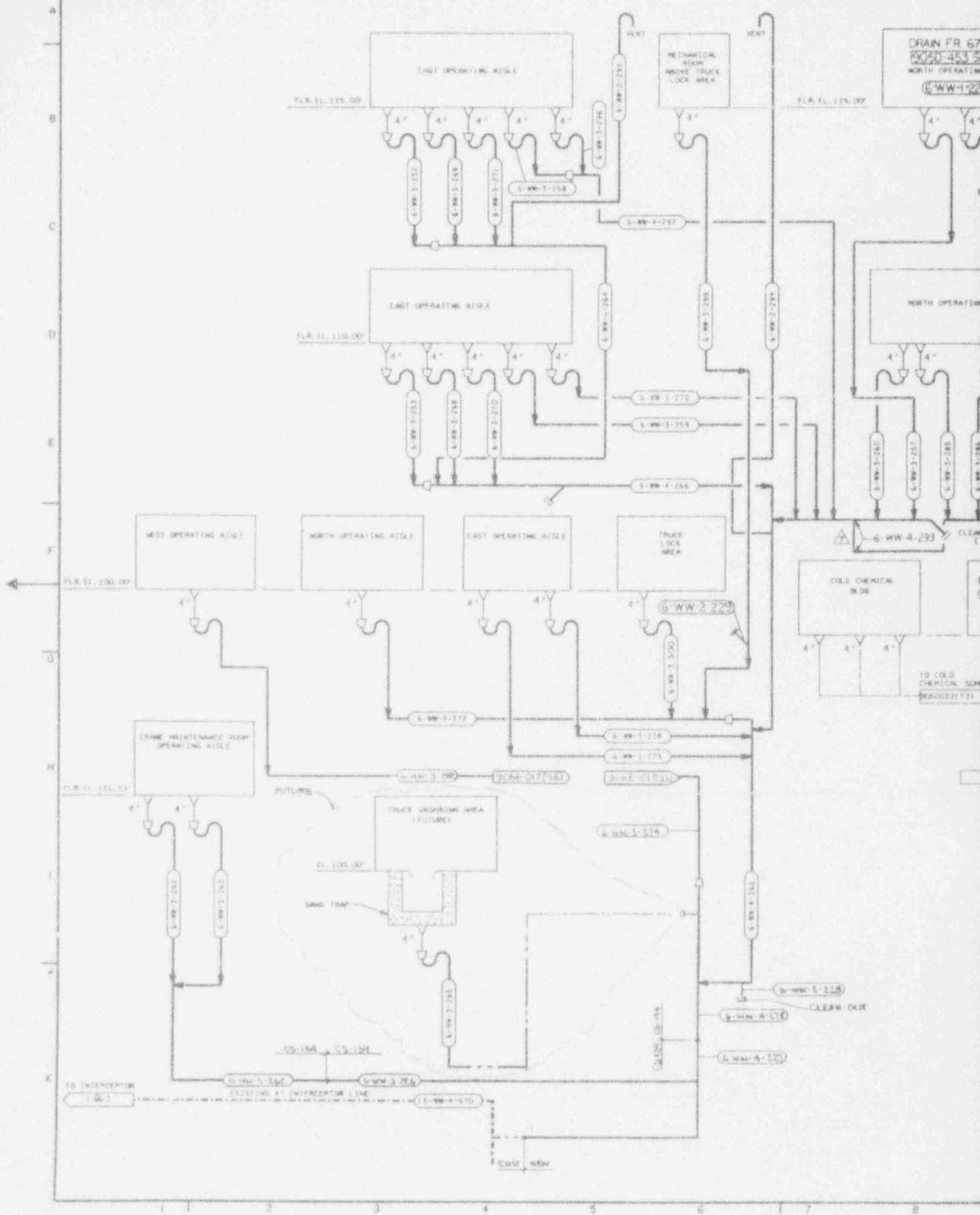
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 ENG. BY: [Signature]  
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 P.D. BY: [Signature]

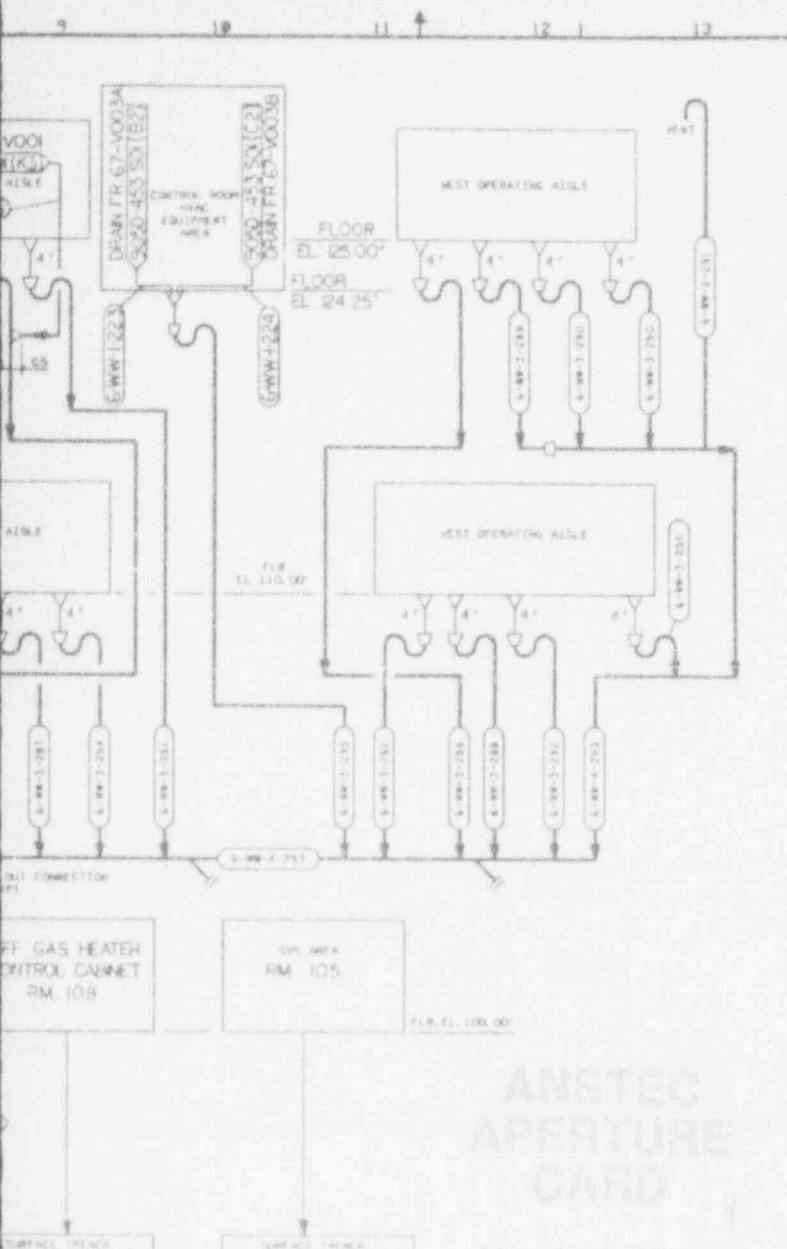
FOR DRAWING INDEX SEE DRAWING NO.

APPROVAL	WBASCO SERVICES INCORPORATED
PROJECT NO. 905-D-047	AVE. D.F.S. NO. 0388
ENGINEER SUPPLY	TASK ORDER 002
LEAD DISTR. ENGR.	WEST VALLEY NUCLEAR SERVICES COMPANY, INC.
DESIGN	WEST VALLEY, NEW YORK
CHECKED	WEST VALLEY DEMONSTRATION PROJECT
DRAWN	P & ID
ISSUED FOR CONSTRUCTION	VITRIFICATION FACILITY CONDENSATE SYSTEM
PROJECT NO. 905-D-047	SCALE: AS SHOWN
SUBCONTRACT NO. 19-CW-02275	DATE: 08-11-92
SCALE: AS SHOWN	PROJECT NO. 905-D-047
SCALE: AS SHOWN	PROJECT NO. 905-D-047

CHECK DRAWING CONTROL FOR LATEST REVISION

905-D-050 0





NO.	DATE	REVISION	DR	CH	APPROVED
B	10-15-88		PJE	KFL	KFL PJE KDW
GENERAL REVISION PER ERAR 1093					
C	06-02-88		KFL	PJE	KFL PJE KDW
GENERAL REVISION PER EBRM 1093A					
D	6-23-89		PJE	KFL	PJE PJE PJE
GENERAL REVISION					
E	7/11/88	REV PER ECN 5967	CW	JP	JP
F	8-24-93	REV PER ECN 8101	PD	PJ	KWK
G	11-16-93	REV PER ECN 7059	HLL	WPA	WPA
H	7-18-90	REV PER ECN 3777	CW	WPA	WPA

LEGEND

--- EXISTING LINE

NOTES

1. THIS DWG. SUPERSEDES DWG. 905-D-012.
2. ALL INSTRUMENT TAG NUMBERS ARE PRECEDED BY SYSTEM DESIGNATOR WV.
3. ALL DRAIN LINES TO SLOPE TOWARD SUMP 1/2 INCH PER 100' MINIMUM.

REFERENCE DRAWINGS

PAID VITRIFICATION DRAINAGE SYSTEM HIGH LEVEL WASTE PIPING PLAN AT EL 124'-0"	905-D-011
VITRIFICATION DRAINAGE SYSTEM	905-D-061
VITRIFICATION FACILITY FLOOR DRAINS AT EL 125.00' & EL 130.00'	905-D-082 S01
VITRIFICATION FACILITY DRAIN PIPING BELOW EL 125.00' & EL 130.00'	905-D-082 S02
VITRIFICATION FACILITY FLOOR DRAINS AT EL 110.00'	905-D-082 S03
VITRIFICATION FACILITY DRAIN PIPING BELOW EL 110.00'	905-D-082 S04
VITRIFICATION FACILITY DRAINAGE PIPING TO INTERCEPTOR	905-D-082 S05

NEEDED TO COMPLETE THIS DRAWING

1. INTERFACES WITH ASSOCIATED SYSTEMS.
2. VALVE & INSTRUMENT DETAILS FOR SERVICES DESIGNATED AS FUTURE INSTALLATION.

9403140323-23

WVNS APPROVAL

DESIGNER: [Signature]

CHECKED: [Signature]

DATE: [Signature]

APPENDIX A		EASCO SERVICES INCORPORATED	
PROJECT NO.	4-2-88-0427	DATE	10-15-88
ENGINEER	DRY	SCALE	AS SHOWN
DESIGN	J. J. LEBEA	DRAWING NO.	905-D-050
CHECKED	S. J. CA	REV.	7
DRAWN	T. J. DUFFY	TITLE	VITRIFICATION DRAINAGE SYSTEM LOW LEVEL
DATE	08-01-88	SCALE	AS SHOWN
PROJECT NO.	19-CW-12775	SCALE	AS SHOWN
SUBCONTRACT NO.		SCALE	AS SHOWN
TITLES FOR CONSTRUCTION		SCALE	AS SHOWN

ANSTEC APERTURE CARD

Also Available on Aperture Card

CAUTION

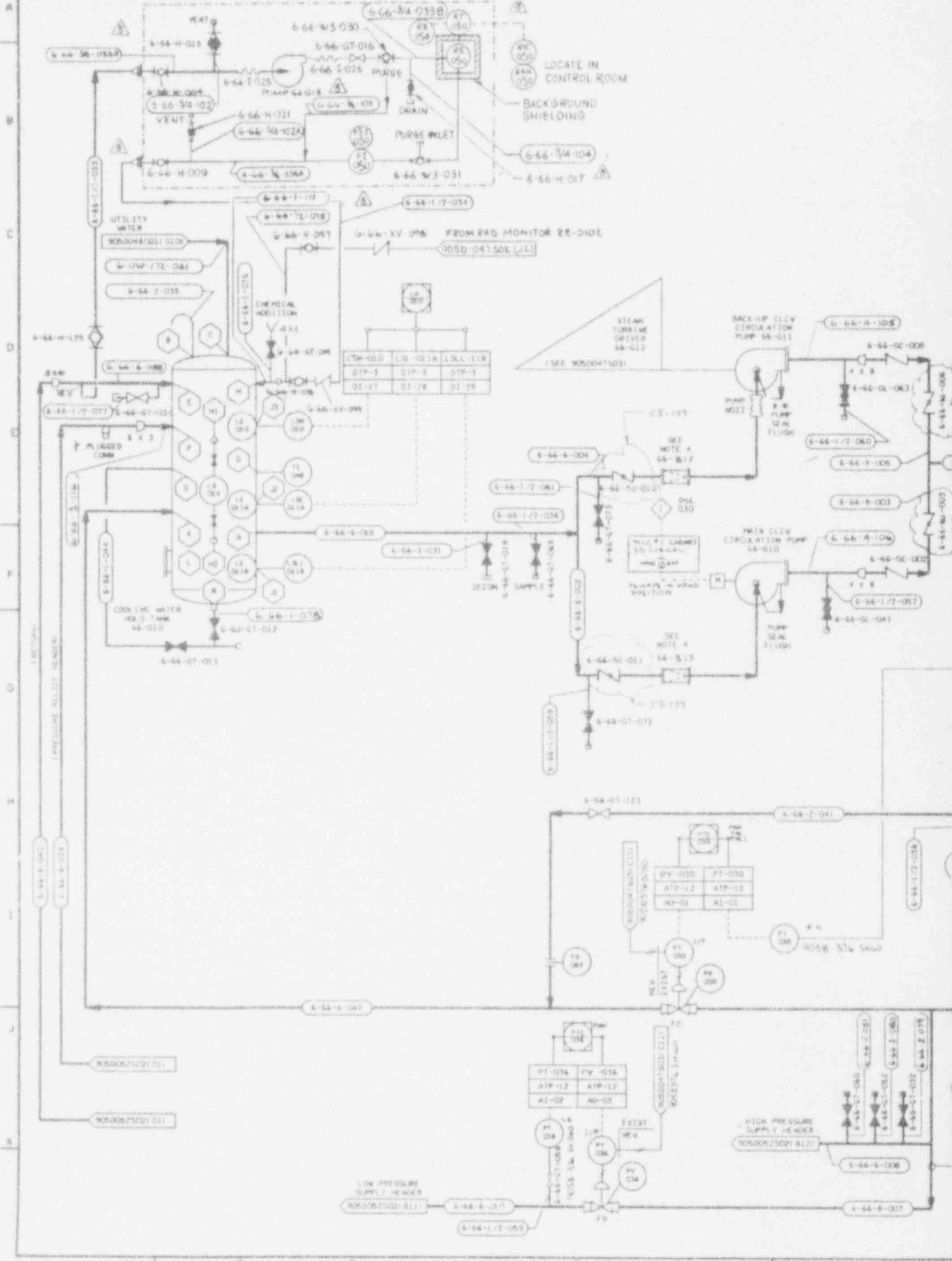
CURRENT AS OF

DATE: 7-23

CHECK EQUIPMENT CONTROL FOR LATEST REVISION

905-D-052 S01 B

OFF-LINE RADIATION MONITOR 0410 B B

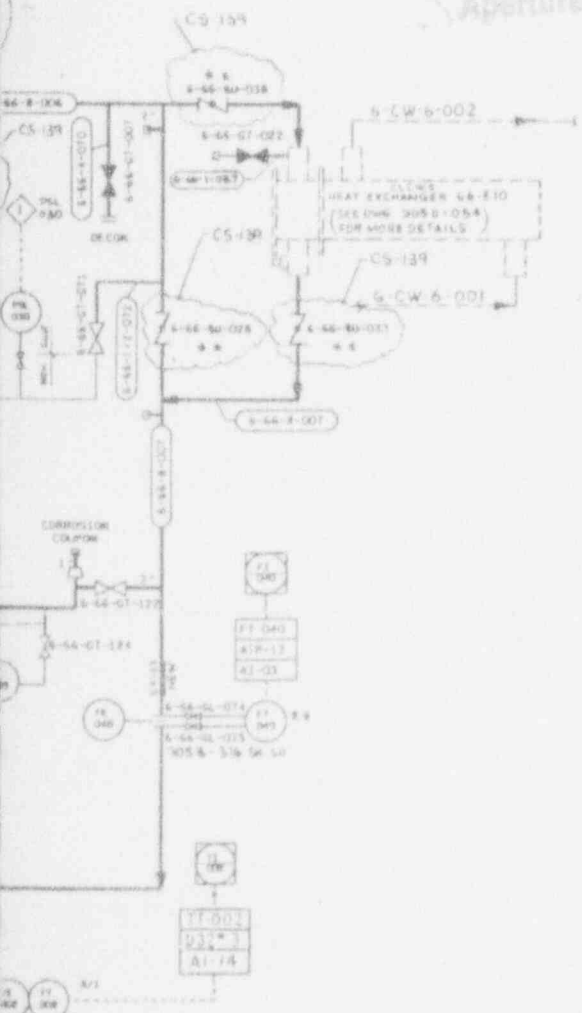


NO.	DATE	REVISION	DR	CH	APPROVED
0	5-2-92	GENERAL REVISION			
1	7-7-94	ERRATA			
1	3-19-90	GEN REV ECH 3518	GW	KAM	DJR
2	4-4-90	GEN REV ECH 3628	GM	WJ	WJ
3	7-13-90	GEN REV ECH 3774	GM	WJ	WJ
4	7-2-92	REV/PER ECH 5230	GM	WJ	WJ
5	7-16-92	REV/PER ECH 5493	GM	WJ	WJ
6	8-31-93	REV/PER ECH 6599	PD	RJ	WJ
7	9-3-93	REV/ECH 6699	PD	WJ	DJR
8	11-9-93	REV/ECH 6161	PD	WJ	WJ

**ANSTEC APERTURE CARD**  
 Also Available on Aperture Card

**REFERENCE DRAWINGS**

P & ID VITRIFICATION FACILITY COOLING TOWER WATER SYSTEM	905-0-054
P & ID VITRIFICATION FACILITY UTILITY WATER	905-0-048501
P & ID V.F. INSTRUMENT RACK 2V2-1A	905-0-045 501
P & ID V.F. INSTRUMENT RACK 2V2-1B	905-0-045 505
P & ID V.F. INSTRUMENT RACK 2V2-1C	905-0-045 506
P & ID V.F. INSTRUMENT RACK 3V1	905-0-045 509
P & ID V.F. INSTRUMENT RACK 3V2	905-0-045 515
P & ID V.F. INSTRUMENT RACK 3V3	905-0-045 517
P & ID V.F. INSTRUMENT RACK 3E10	905-0-045 518
P & ID V.F. INSTRUMENT RACK 2E10	905-0-045 519
INSTRUMENT INSTALLATION DETAILS	905-0-052 516



- NOTES**
1. THE SYSTEM DESIGNATOR FOR ALL P&ID COMPONENTS ON THIS SHEET IS 6-66-YY-XXX UNLESS OTHERWISE NOTED.
  2. <sup>REV</sup> THIS SYMBOL IDENTIFIES THE SCOPE OF PIPING WORK TO BE UNDERTAKEN TO CONVERT THE EXISTING CLOW SYSTEM TO ITS FINAL HOT CONFIGURATION.
  3. COMPONENTS NOT INSTALLED AS PART OF THE EXISTING SYSTEM WHICH REQUIRE INSTALLATION FOR THE FINAL CONFIGURATION ARE MARKED WITH A DOUBLE ASTERISK (\*\*).
  4. BASKET STRAINERS 66-B-12 & 13 ARE START-UP STRAINERS. REMOVE STRAINERS PRIOR TO HOT OPS.

9403140323-24

**FINAL APPROVAL**

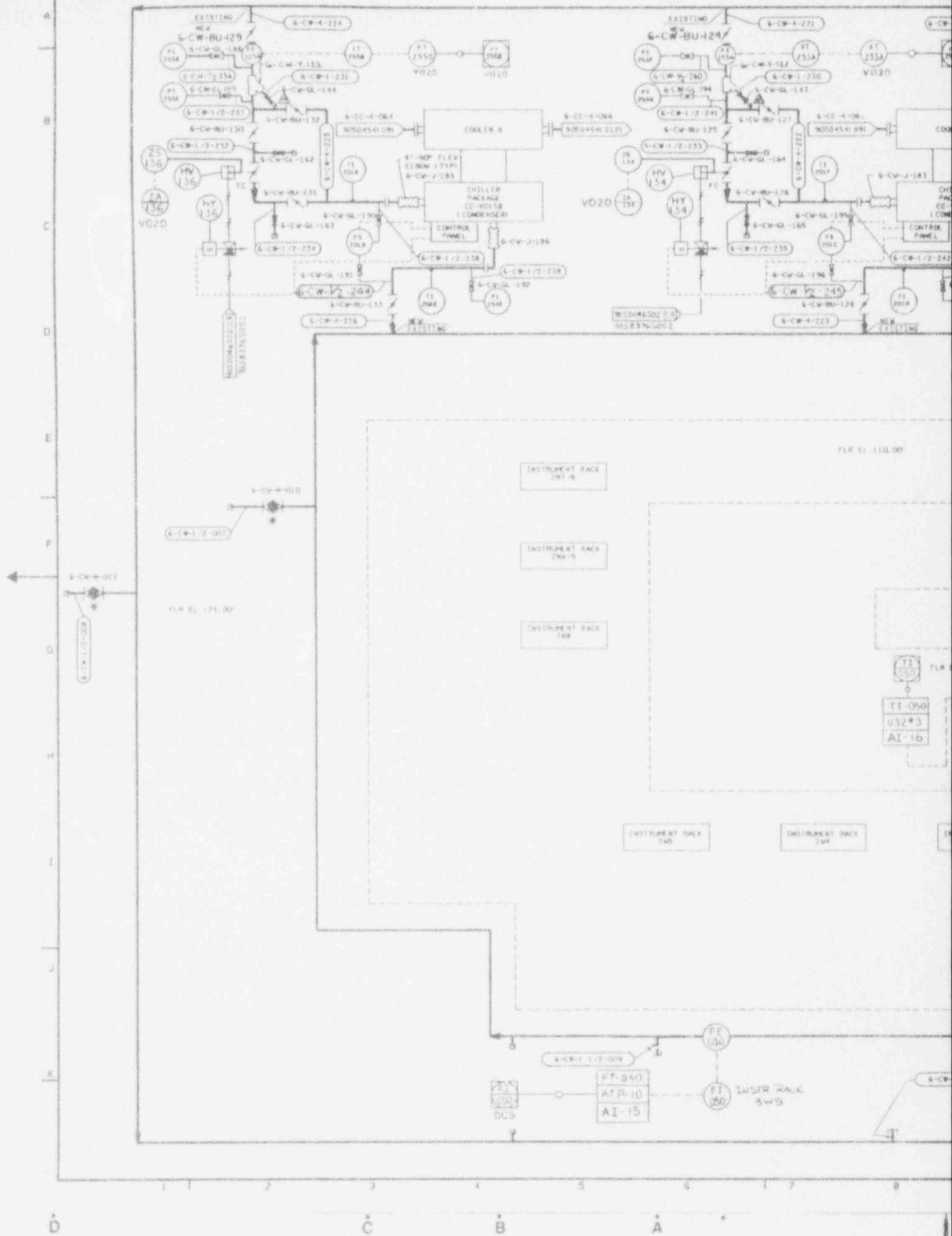
DESIGNER	DATE
CHECKED	DATE
DRAWN	DATE

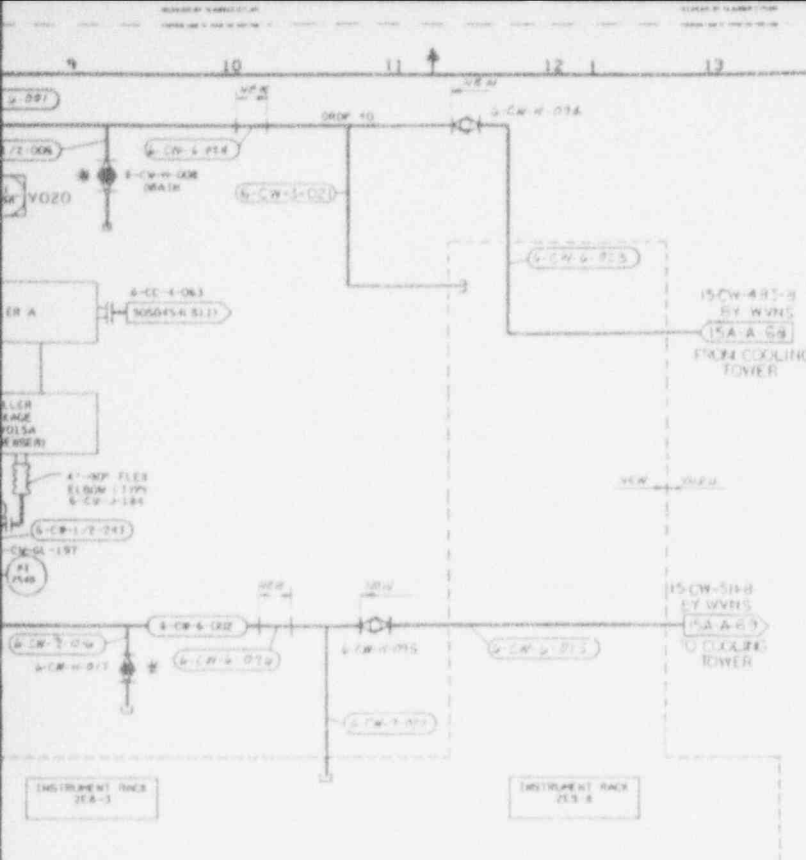
**FOR DRAWING INDEX SEE DRAWING NO.**

APPROVED	DATE	PROJECT NO.	TASK ORDER NO.
PROJECT MGR	11-20-91	WEST VALLEY NUCLEAR SERVICES COMPANY, INC	WEST VALLEY, NEW YORK
DESIGNER	11-20-91	WEST VALLEY DEMONSTRATION PROJECT	
CHECKED	11-20-91	VITRIFICATION FACILITY CLOSED LOOP COOLING WATER SYSTEM P&ID	
DRAWN	11-20-91	DRAWING NO.	REV.
		905-0-052 8	8

CURRENT AS OF  
 DATE 1-7-93  
 CHECK DOCUMENT CONTROL FOR LATEST REVISION

905-D-054



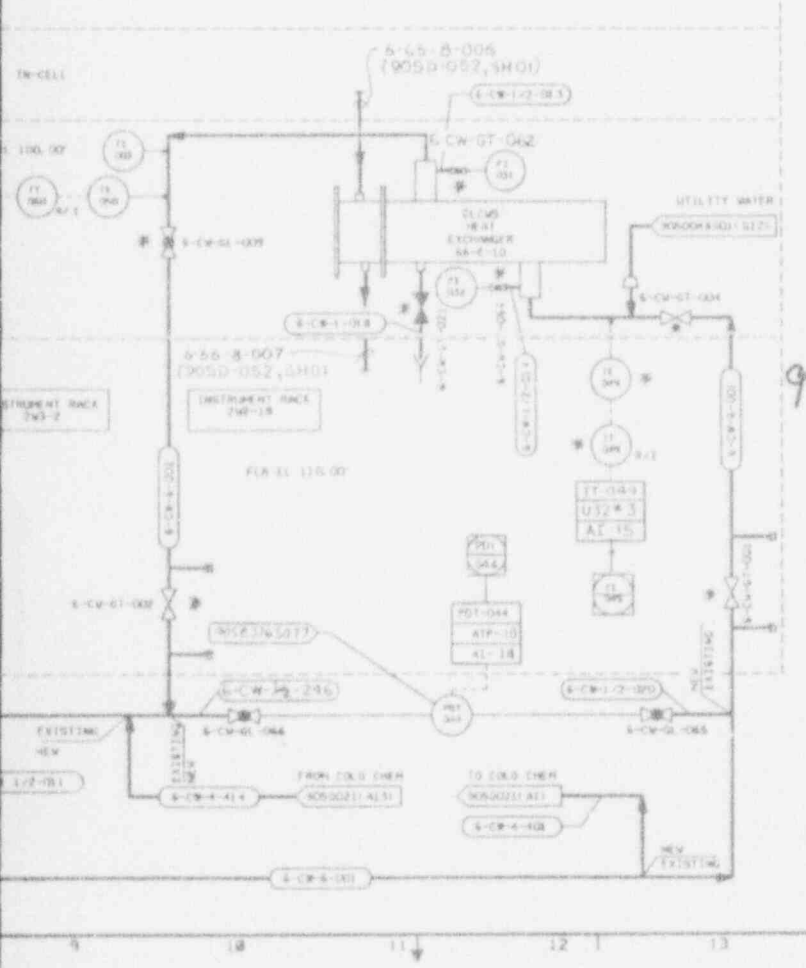


NO.	DATE	REVISION	OR	CH	APPROVED
8	01-26-93				
GENERAL REVISION					
9	02-26-93				
GENERAL REVISION					
10	3/1/94	ADD SWP			
1	3-19-90	FORM REV PER ECN 3554	LR		
2	5-29-90	GEN REV PER ECN 3670	AWN		
3	7-12-90	REV PER ECN 3777	OW		
4	9-10-90	REV PER ECN 3907	AWN		
5	1-30-91	REV Q. PER ECN 4104	GRH		
6	3/27/91	PER ECN 4117	JH		
7	6-29-92	ECN 5028	PO		
8	9-25-92	REV PER ECN 5259	P		
9	8-31-93	REV PER ECN 6509	RD		
10	11-27-93	REV PER ECN 7467	OW		

NOTES:  
 1. A SINGLE ASTERISK (\*) INDICATES EXISTING VALVES AND/OR EQUIPMENT TO BE RETAINED.

REFERENCE DRAWINGS:

- VITRIFICATION FACILITY HVAC CHILLED WATER SYSTEM P & ID SHEET 2 905-0-454
- P & ID COLD CHEMICAL WATER SYSTEMS 905-0-021
- INSTRUMENT INSTALLATION DETAILS 905-3-376



9403140323-25

ANSTEC  
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 CARD  
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 Aperture Card

WWS APPROVAL

CC: [Signature]  
 DATE: [Signature]  
 SIGNATURE: [Signature]  
 DATE: [Signature]

FOR DRAWING INDEX SEE DRAWING NO.

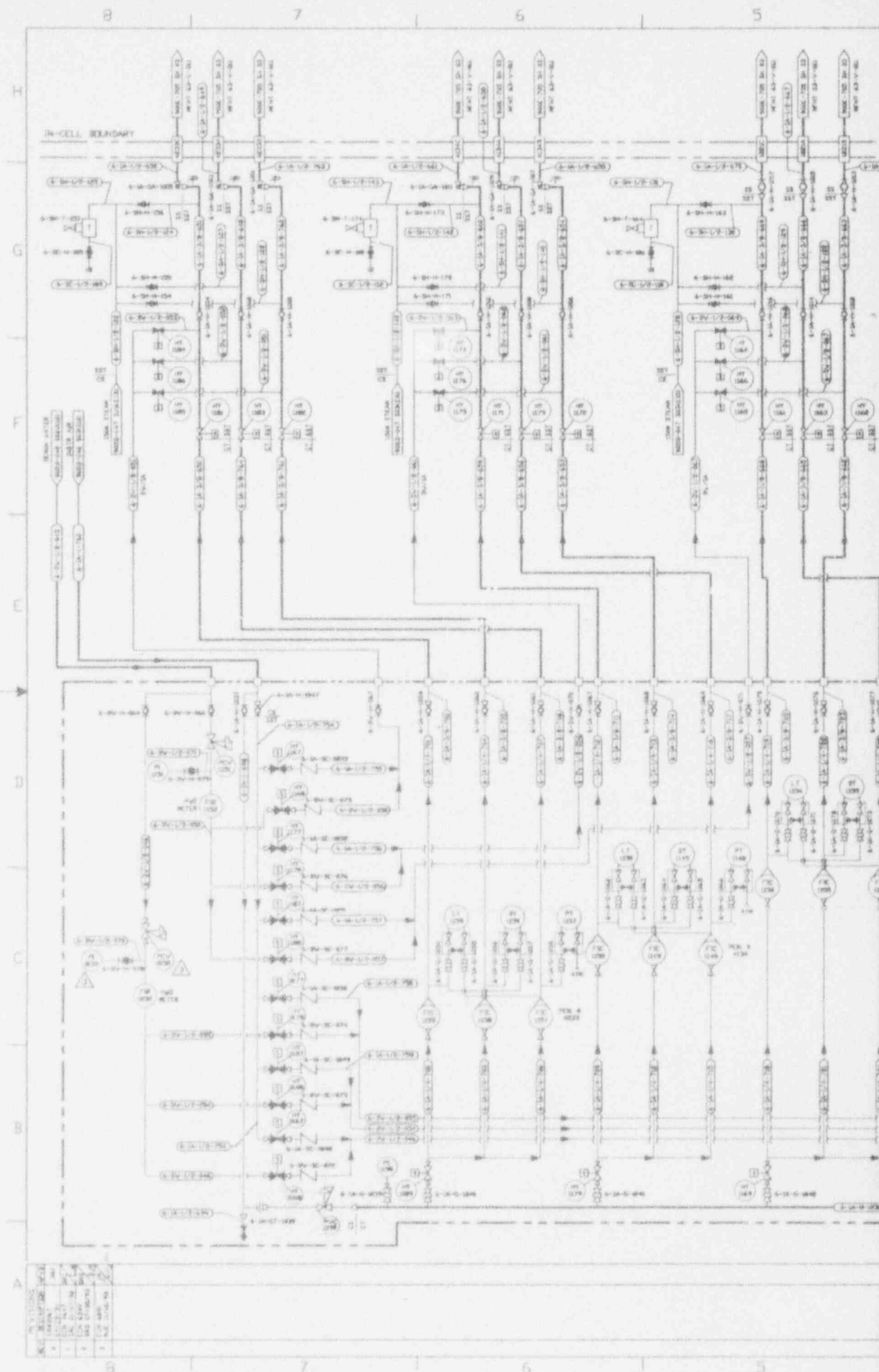
APPROVED (WWS) NO.	EBASCO SERVICES INCORPORATED
PROJECT NO.	APR. D.T.S. NO. 2388
DATE OF ISSUE	TASK ORDER 000
ENGINEER (SUP)	WEST VALLEY NUCLEAR SERVICES COMPANY, INC
DESIGN (CONTR)	WEST VALLEY, NEW YORK
LEAD (CONTR)	WEST VALLEY DEMONSTRATION PROJECT
DESIGN (L)	
CHECKED (L)	
DRAWN (L)	
ISSUED FOR CONSTRUCTION	
SCALE	SCALE
DRIVING NO.	DRIVING NO.
PROJECT NO.	PROJECT NO.
ISSUE NO.	ISSUE NO.
SCALE	SCALE
DATE	DATE
SCALE	SCALE
DATE	DATE

SHEET INDEX SHEET NUMBER 905 D 054 10

SCALE: 1" = 10'-0" (AS SHOWN)

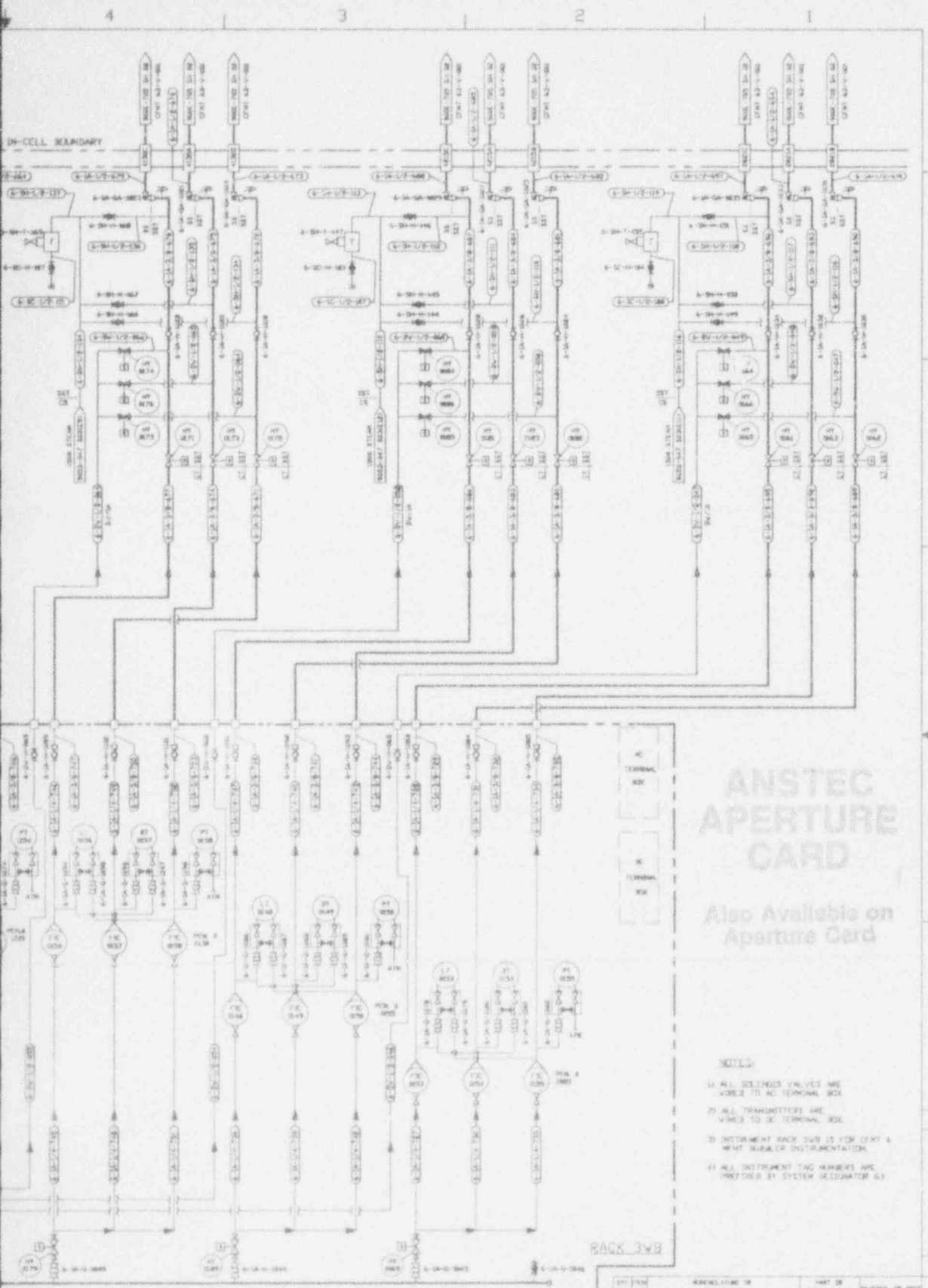
DATE: 905-0-054

CAUTION  
 CURRENT AS OF  
 10/17/93  
 CHECK DOCUMENT STATUS  
 FOR LATEST REVISIONS



NO.	REVISION	DATE	BY	CHKD.
1	ISSUED	10-1-58	J. W. H.	J. W. H.
2	REVISED	10-1-58	J. W. H.	J. W. H.
3	REVISED	10-1-58	J. W. H.	J. W. H.
4	REVISED	10-1-58	J. W. H.	J. W. H.
5	REVISED	10-1-58	J. W. H.	J. W. H.
6	REVISED	10-1-58	J. W. H.	J. W. H.
7	REVISED	10-1-58	J. W. H.	J. W. H.
8	REVISED	10-1-58	J. W. H.	J. W. H.
9	REVISED	10-1-58	J. W. H.	J. W. H.
10	REVISED	10-1-58	J. W. H.	J. W. H.





# ANSTEC APERTURE CARD

Also Available on Aperture Card

**CAUTION**  
CURRENT AS OF  
MAY 17 '73

CHECK DOCUMENT CONTROL  
FOR LATEST REVISION

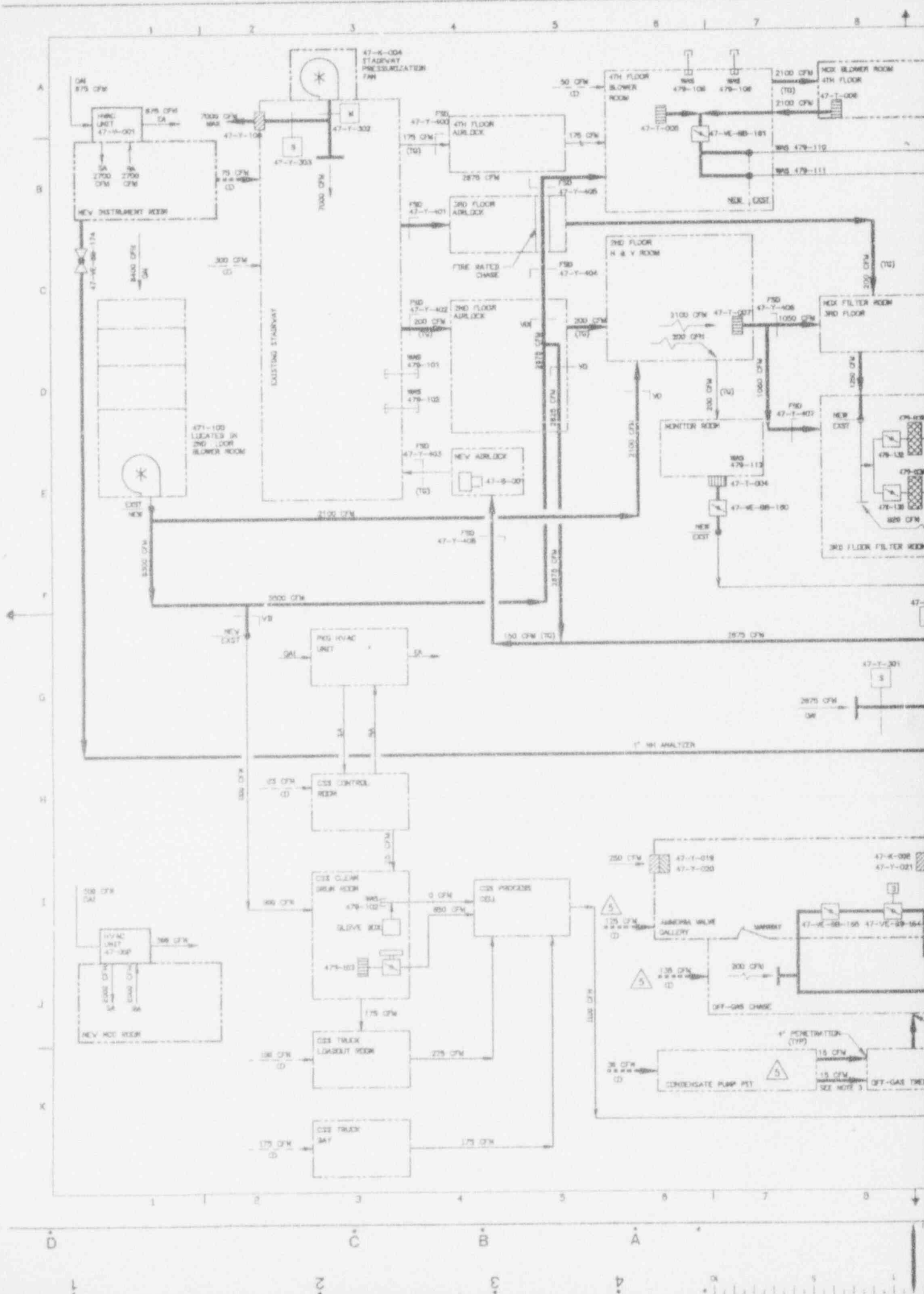
**NOTES**

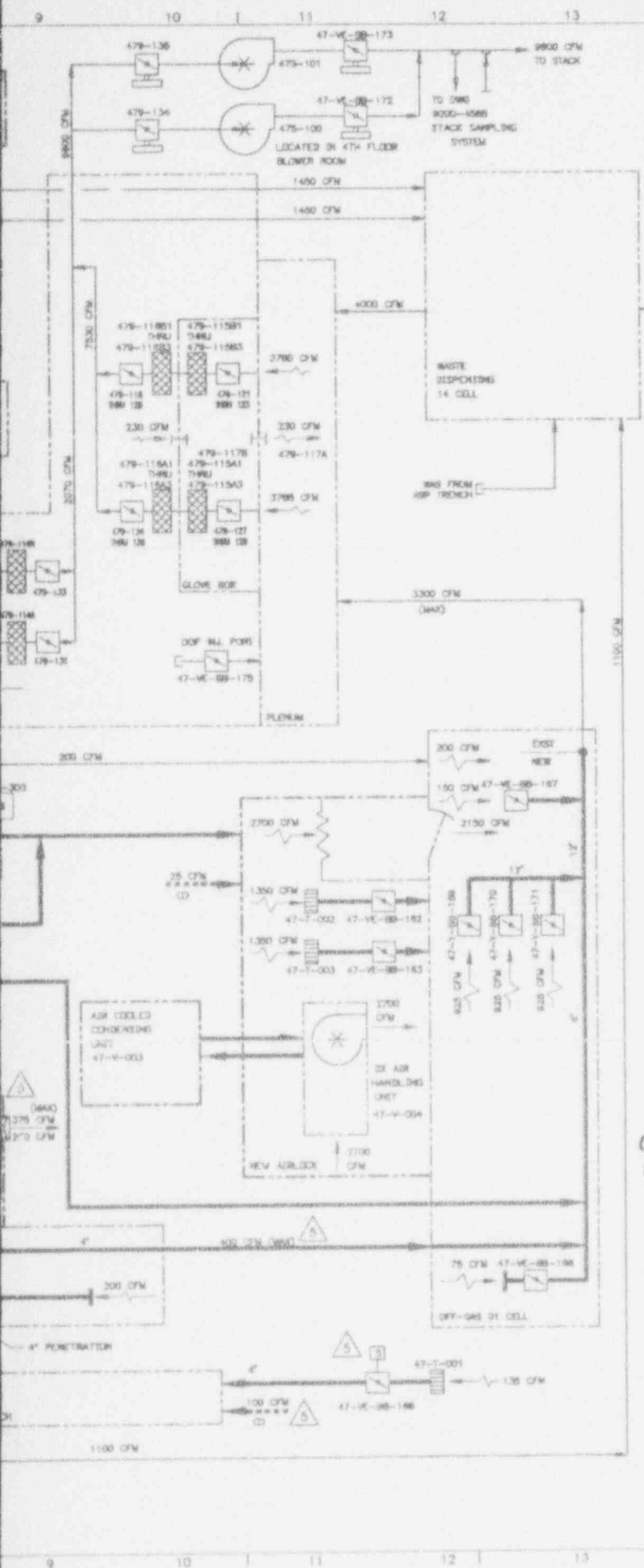
- 1. ALL DELINEATED VALUES ARE VORIED TO A1 TERMINAL BOX
- 2. ALL TRANSDUCERS ARE VORIED TO A1 TERMINAL BOX
- 3. INSTRUMENT RACK 3WB IS FOR OXYG & NITR NUCLEAR INSTRUMENTATION
- 4. ALL INSTRUMENT TAG NUMBERS ARE PREFIXED BY SYSTEM INDICATOR S1

PARTS LIST		QTY	DESCRIPTION	UNIT	REV
1	ALL OTHERS SPECIFIED	1	AS SHOWN	EA	1
2	ALL DIM IN INCHES	1	AS SHOWN	EA	1
3	UNLESS OTHERWISE NOTED	1	AS SHOWN	EA	1
4	ALL DIM IN INCHES	1	AS SHOWN	EA	1
5	ALL DIM IN INCHES	1	AS SHOWN	EA	1
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99	ALL DIM IN INCHES	1	AS SHOWN	EA	1
100	ALL DIM IN INCHES	1	AS SHOWN	EA	1

VITRIFICATION FACILITY  
INSTRUMENT RACK 3WB  
P & I D  
9050-329  
9050-0493

9403140323-26





NO.	DATE	REVISION	DR	CHK	APPROVED
09	11-20-90		R.A.	R.A.	R.A. WYS FJES
GENERAL REVISION					
2	9/24/91	DR 2192			JRH
1	10/3/91	GEN REV PER ECR 4553	LJK	HAB	BLZEMENI
2	3/15/93	GEN REV PER ECR 5677	SPD	HAB	MG
3	5/7/93	GEN REV PER ECR 6775	LJK	HAB	MG
4	5/13/93	REV PER ECR 8290	R.A.	HAB	DJR
5	11/29/93	REV PER ECR 7025	DJR		

**NOTES:**

- ALL AIR QUANTITIES (CFM) ARE FOR 100 FEET ALTITUDE ABOVE SEA LEVEL.
- SEE PLS 106E-010 SHEETS 2 THRU 7 FOR LINE NUMBERS, LEADER NUMBERS, VCL, DAMPER NUMBERS, ETC.
- BUILDING ENTRY TO CONDENSATE PUMP PTT. INFILTRATION OCCURS DUE TO A TEMPORARY EXHAUST FAN DRAWING NEGATIVE ON PTT INTO PTT. APPROXIMATELY 30 CFM EACH PENETRATION.

**REFERENCE DRAWINGS:**

2192-01 & 2192-02	906D-400
VF-01-14 BUILDING HVAC DEMONSTRATION DIAGRAM	906D-401
VF FILTER EX-CELL GAS SYSTEM PLUS ANALYZERS	906D-015
VF FILTER EX-CELL GAS SYSTEM PLUS INSTRUMENT AIR SYS	906D-016
VF-01-14 BUILDING HVAC P & I 3	906D-018 SH 2-7
VF-01-14 BUILDING HVAC PLANS	906D-430 THRU 436
VF-01-14 BUILDING HVAC DEMONSTRATION	906D-411 THRU 414

**ANSTEC APERTURE CARD**

Also Available on Aperture Card

9403140323-27

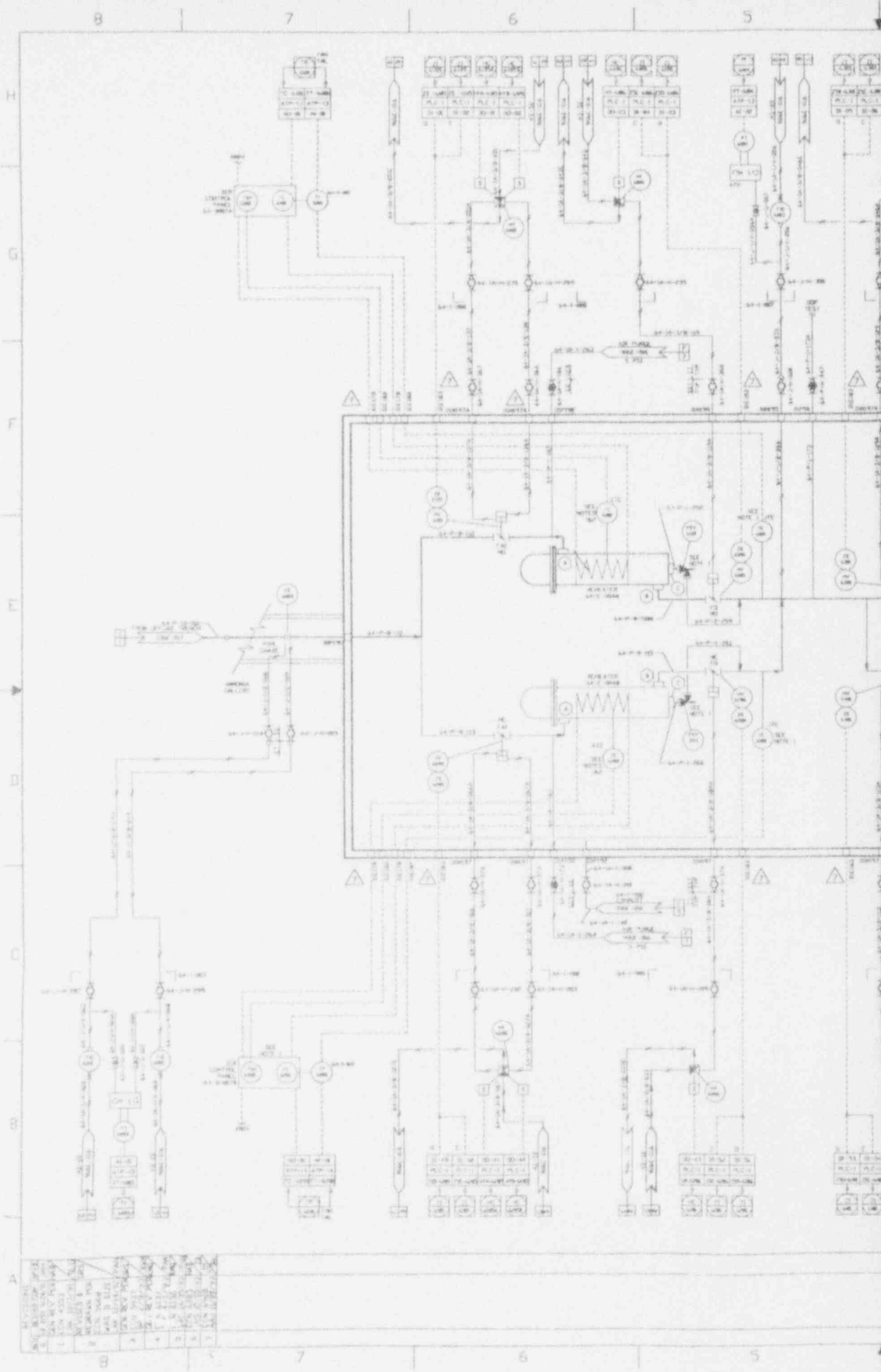
FOR DRAWING INDEX SEE DRAWING NO.

APPROV WWS (D)	EBASCO SERVICES INCORPORATED
PROJECT MGR F J E STOREY	47E D P S NO 2386
ENGINEER SUPV W BELARSKI	106R ORDER 025
GEN USE INCR W BELARSKI	WEST VALLEY NUCLEAR SERVICES COMPANY INC WEST VALLEY, NEW YORK
DESIGN R J LEWIS	WEST VALLEY DEMONSTRATION PROJECT
CHECKED W BELARSKI	VF
DRAWN R J LEWIS	01-14 BUILDING
DATE 09-19-90	HVAC AIR FLOW DIAGRAM
DR - 4027-01164138	VF - NEXT DSK NUMBER
PROJECT NO.	906D-018 5
19-00W-002275	SCALE
SUBCONTRACT NO.	906-0-018 B
ISSUED FOR CONSTRUCTION	SCALE: NONE

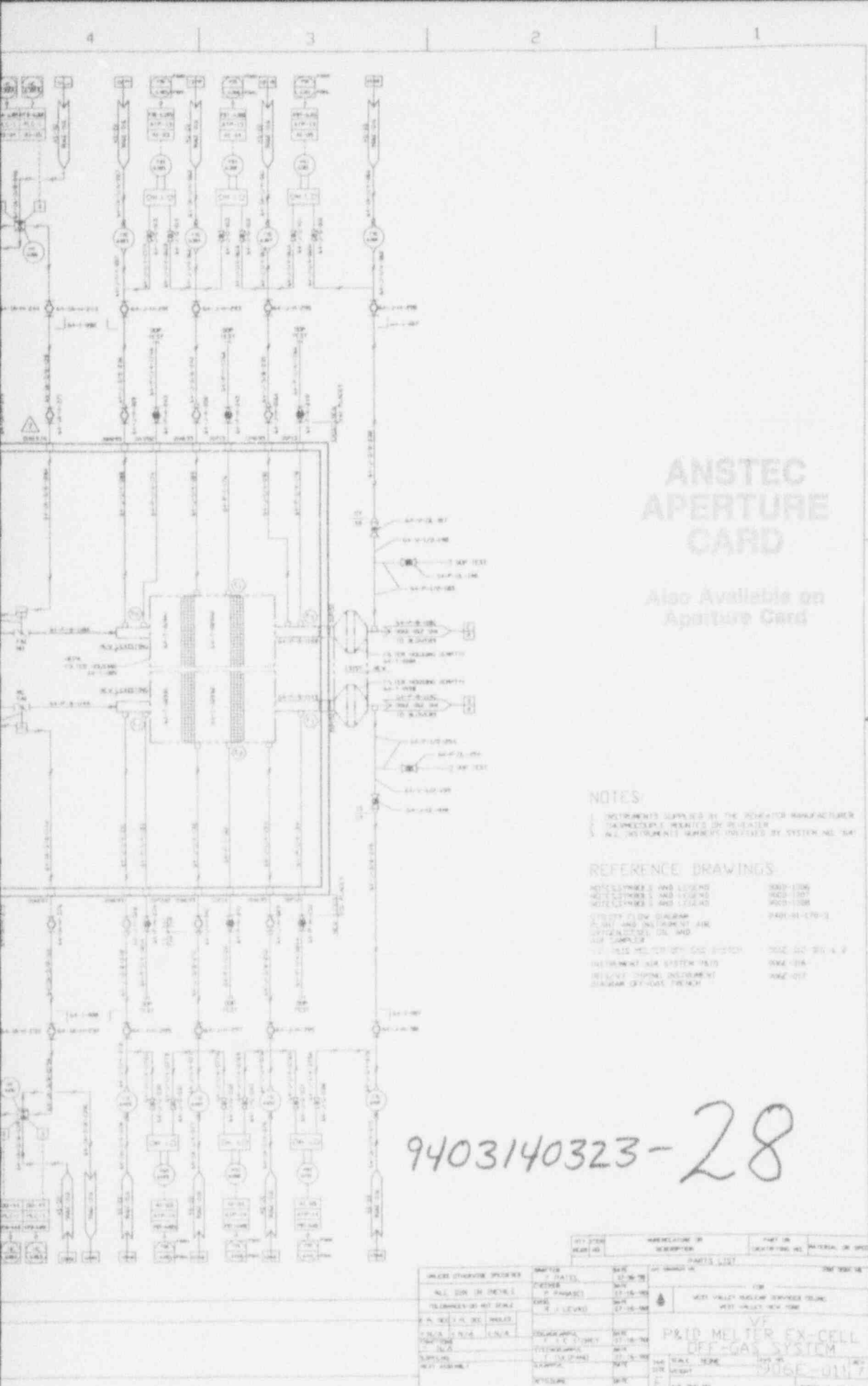
CAD DRAWING - DO NOT REVISE THIS ORIGINAL

CHECK DOCUMENT CONTROL FOR LATEST REVISION

CAUTION  
CURRENT AS OF  
DATE 11/7/93



NO.	DESCRIPTION	UNIT	TYPE	STATUS
1	REACTOR	R-101	VERTICAL	OPERATING
2	CONDENSER	C-101	HEAT EXCHANGER	OPERATING
3	HEATER	H-101	HEAT EXCHANGER	OPERATING
4	PUMP	P-101	CENTRIFUGAL	OPERATING
5	TANK	T-101	STORAGE	OPERATING
6	TANK	T-102	STORAGE	OPERATING
7	TANK	T-103	STORAGE	OPERATING
8	TANK	T-104	STORAGE	OPERATING
9	TANK	T-105	STORAGE	OPERATING
10	TANK	T-106	STORAGE	OPERATING
11	TANK	T-107	STORAGE	OPERATING
12	TANK	T-108	STORAGE	OPERATING
13	TANK	T-109	STORAGE	OPERATING
14	TANK	T-110	STORAGE	OPERATING
15	TANK	T-111	STORAGE	OPERATING
16	TANK	T-112	STORAGE	OPERATING
17	TANK	T-113	STORAGE	OPERATING
18	TANK	T-114	STORAGE	OPERATING
19	TANK	T-115	STORAGE	OPERATING
20	TANK	T-116	STORAGE	OPERATING



# ANSTEC APERTURE CARD

Also Available on Aperture Card

## NOTES

- INSTRUMENTS SUPPLIED BY THE MANUFACTURER (UNLESS OTHERWISE SPECIFIED BY OTHERWISE)
- ALL INSTRUMENTS MOUNTED PROVIDED BY SYSTEM NO. 104

## REFERENCE DRAWINGS

- NOTICE NUMBER 1 AND LOGS NO. 9003-1000
- NOTICE NUMBER 2 AND LOGS NO. 9003-1001
- NOTICE NUMBER 3 AND LOGS NO. 9003-1000
- PROCESS FLOW DIAGRAM 9003-01-170-1
- P&ID AND INSTRUMENT AIR SYSTEMS 9003-01-170-2
- INSTRUMENT AIR SYSTEM TRIS 9003-01A
- INSTRUMENT TYPING INSTRUMENT DIAGRAM OFF-GAS TRICH 9003-017

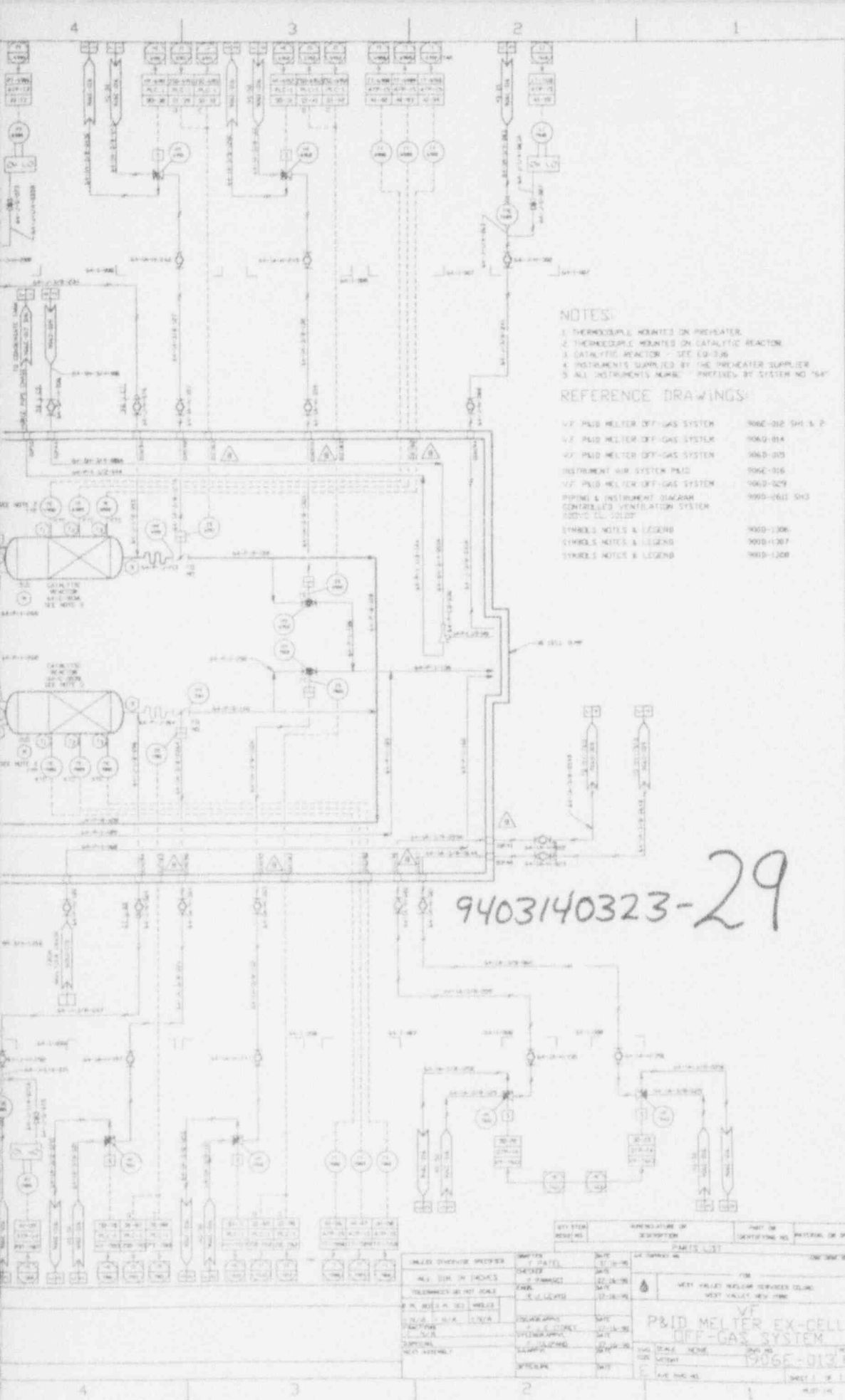
**CAUTION**  
 CURRENT AS OF  
 11-23-78  
 CHECK DOCUMENT CONTROL  
 FOR LATEST REVISION.

9403140323-28

11-205E-011  
ALL INSTRUMENTS LISTED RECEIVED FROM MANUFACTURER

INSTRUMENT SYMBOL	NAME	DATE	PARTS LIST	MATERIAL OR SPEC	
				DESCRIPTION	QUANTITY
(Symbol)	ALL GUN IN DETAILS	11-15-78	FOR	WEST VALLEY HOLDING SERVICE CO., INC.	WEST VALLEY, NEW YORK
(Symbol)	FLAMMABLE GAS DETECTOR	11-15-78			
(Symbol)	P&ID METER EX-CELL	11-15-78	VF		
(Symbol)	OFF-GAS SYSTEM	11-15-78			
(Symbol)	TRICH	11-15-78			
(Symbol)	TEMPERATURE	11-15-78			
(Symbol)	TEMPERATURE	11-15-78			
(Symbol)	TEMPERATURE	11-15-78			
(Symbol)	TEMPERATURE	11-15-78			





**NOTES:**

- 1. THERMOCOUPLE MOUNTED ON PREHEATER
- 2. THERMOCOUPLE MOUNTED ON CATALYTIC REACTOR
- 3. CATALYTIC REACTOR - SEE EQ 304
- 4. INSTRUMENTS SUPPLIED BY THE PREHEATER SUPPLIER
- 5. ALL INSTRUMENTS NORMAL PREFIXED BY SYSTEM NO 704

**REFERENCE DRAWINGS:**

VF P&ID MELTER OFF-GAS SYSTEM	906E-012 SH & P
VF P&ID MELTER OFF-GAS SYSTEM	906D-014
VF P&ID MELTER OFF-GAS SYSTEM	906D-015
INSTRUMENT AIR SYSTEM P&ID	906E-016
VF P&ID MELTER OFF-GAS SYSTEM	906D-029
PIPING & INSTRUMENT DIAGRAM CONTROLLED VENTILATION SYSTEM	906D-041 SH3
SYMBOLS NOTES & LEGEND	9000-1306
SYMBOLS NOTES & LEGEND	9000-1307
SYMBOLS NOTES & LEGEND	9000-1308

**ANSTEC APERTURE CARD**

Also Available on Aperture Card

9403140323-29

CAUTION  
CURRENT AS OF  
DATE / 1965

CHECK DOCUMENT CONTROL FOR LATEST REVISION

11 906E-012

<table border="1"> <tr> <th>UNLESS OTHERWISE SPECIFIED</th> <th>UNITS</th> <th>TOLERANCE</th> <th>FINISH</th> </tr> <tr> <td>ALL DIM IN INCHES</td> <td>FRACTIONS</td> <td>±0.005</td> <td>AS SHOWN</td> </tr> <tr> <td>TOLERANCES ON HOLE SIZES</td> <td>FRACTIONS</td> <td>±0.005</td> <td>AS SHOWN</td> </tr> <tr> <td>FINISH</td> <td>AS SHOWN</td> <td></td> <td></td> </tr> <tr> <td>WELD SYMBOLS</td> <td>AS SHOWN</td> <td></td> <td></td> </tr> <tr> <td>WELDING</td> <td>AS SHOWN</td> <td></td> <td></td> </tr> <tr> <td>WELDING</td> <td>AS SHOWN</td> <td></td> <td></td> </tr> <tr> <td>WELDING</td> <td>AS SHOWN</td> <td></td> <td></td> </tr> </table>	UNLESS OTHERWISE SPECIFIED	UNITS	TOLERANCE	FINISH	ALL DIM IN INCHES	FRACTIONS	±0.005	AS SHOWN	TOLERANCES ON HOLE SIZES	FRACTIONS	±0.005	AS SHOWN	FINISH	AS SHOWN			WELD SYMBOLS	AS SHOWN			WELDING	AS SHOWN			WELDING	AS SHOWN			WELDING	AS SHOWN			<table border="1"> <tr> <th>SYMBOL</th> <th>DESCRIPTION</th> <th>QUANTITY</th> <th>UNIT</th> </tr> <tr> <td>1</td> <td>WEST VALLEY MELTER SERVICES COLING</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>WEST VALLEY MELTER SERV</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;"><b>P&amp;ID MELTER EX-CELL OFF-GAS SYSTEM</b></td> </tr> <tr> <td>1</td> <td>WEST VALLEY MELTER SERVICES COLING</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>WEST VALLEY MELTER SERV</td> <td></td> <td></td> </tr> </table>	SYMBOL	DESCRIPTION	QUANTITY	UNIT	1	WEST VALLEY MELTER SERVICES COLING			2	WEST VALLEY MELTER SERV			<b>P&amp;ID MELTER EX-CELL OFF-GAS SYSTEM</b>				1	WEST VALLEY MELTER SERVICES COLING			2	WEST VALLEY MELTER SERV		
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2	WEST VALLEY MELTER SERV																																																								

## Section 1.3.1 Vitrification Facility

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905-D-030	Sht:001	Rev:009	Title: General arrangement vitrification facility plan EL 100'
905-D-030	Sht:002	Rev:000	Title: VF GENERAL ARRANGEMENT FUEL OIL STORAGE
905-D-032	Sht:001	Rev:005	Title: General arrangement vitrification facility plan EL 110.25'
905-D-032	Sht:002	Rev:002	Title: VF CONTROL ROOM GENERAL ARRANGEMENT
905-D-034	Sht:001	Rev:004	Title: General arrangement vitrification facility plan EL 124' & above
905-D-038	Sht:001	Rev:004	Title: General arrangement vitrification facility sections
905-D-040	Sht:001	Rev:002	Title: General arrangement vitrification facility plan EL 146.25' & roof

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## Section 1.3.2 Tank Farm

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904-D-060	Sht:001	Rev:001	Title: SMS Utilities to pump/dist. pits general arrangement
904-D-060	Sht:001	Rev:006	Title: SMS HLW transfer piping
904-D-060	Sht:002	Rev:005	Title: SMS HLW transfer piping
904-D-060	Sht:003	Rev:005	Title: SMS HLW transfer piping
904-D-060	Sht:004	Rev:006	Title: SMS HLW transfer piping
904-D-060	Sht:005	Rev:010	Title: SMS HLW transfer piping

---

## Section 1.3.3 High Level Waste Storage

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905-D-031	Sht:001	Rev:001	Title: General arrangement vitrification facility EDR, CPC plan EL 100'
905-D-031	Sht:001	Rev:001	Title: General arrangement vitrification facility EDR CPC plan EL 117'

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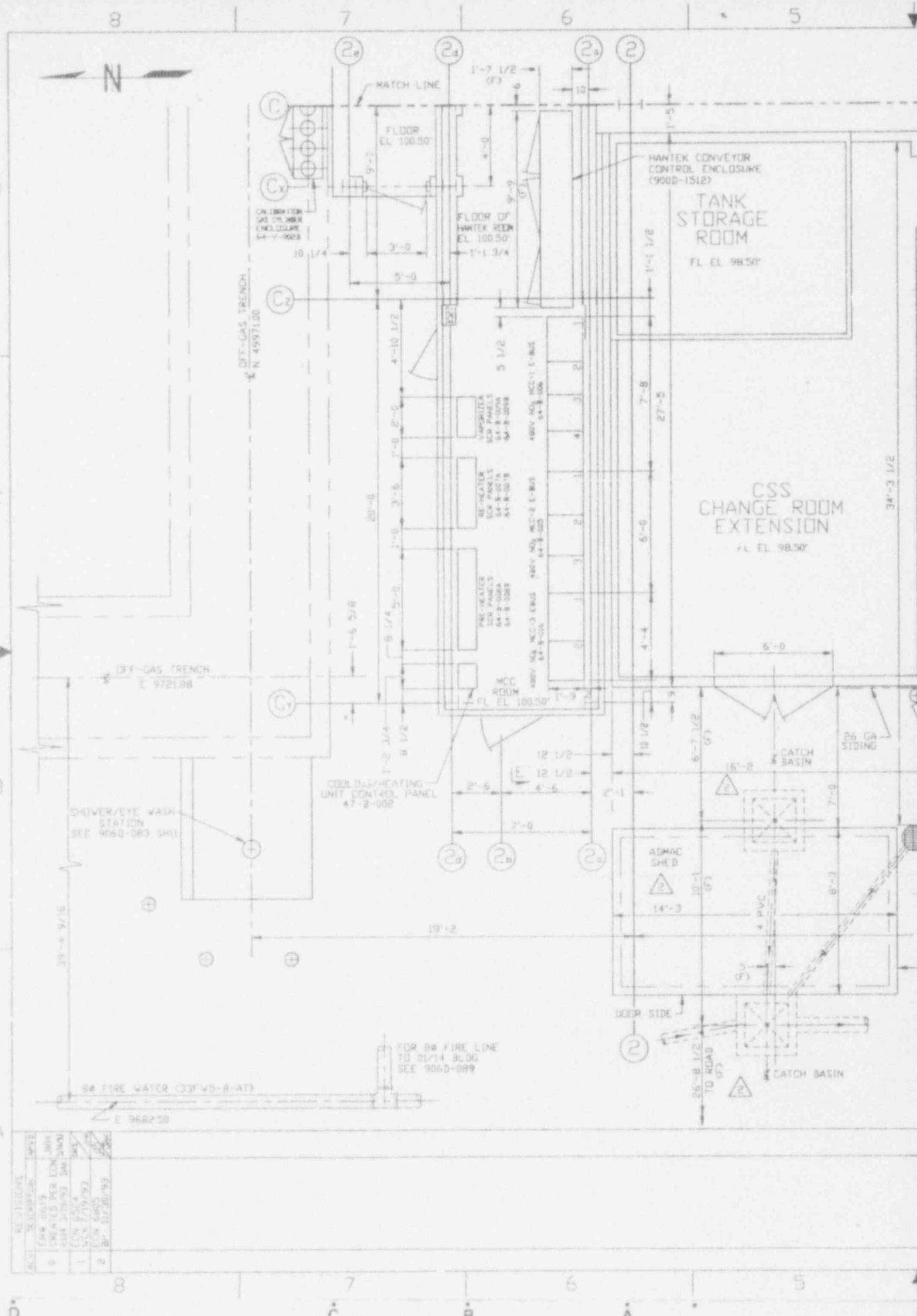
## Section 1.3.4 Ex-cell Off-gas 0-14 Building

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.....

906-D-030	Sht:001	Rev:006	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING 98'
906-D-030	Sht:002	Rev:001	Title: VF GENERAL ARRANGEMENT NOx BENCH
906-D-030	Sht:003	Rev:002	Title: VF GENERAL ARRANGEMENTS 01/14 BUILDING PLAN EL 98'
906-D-031	Sht:001	Rev:005	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING 116.59'
906-D-032	Sht:001	Rev:005	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING 130'
906-D-033	Sht:001	Rev:005	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING 144'
906-D-034	Sht:001	Rev:005	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING SECTION
906-D-035	Sht:001	Rev:006	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING SECTION
906-D-036	Sht:001	Rev:003	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING PLAN EL 158' ROOF PLAN
906-D-037	Sht:001	Rev:006	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING PLAN EL 124'
906-D-038	Sht:001	Rev:006	Title: VF MELTER OFF-GAS GENERAL ARRANGEMENTS 01/14 BUILDING SECTION

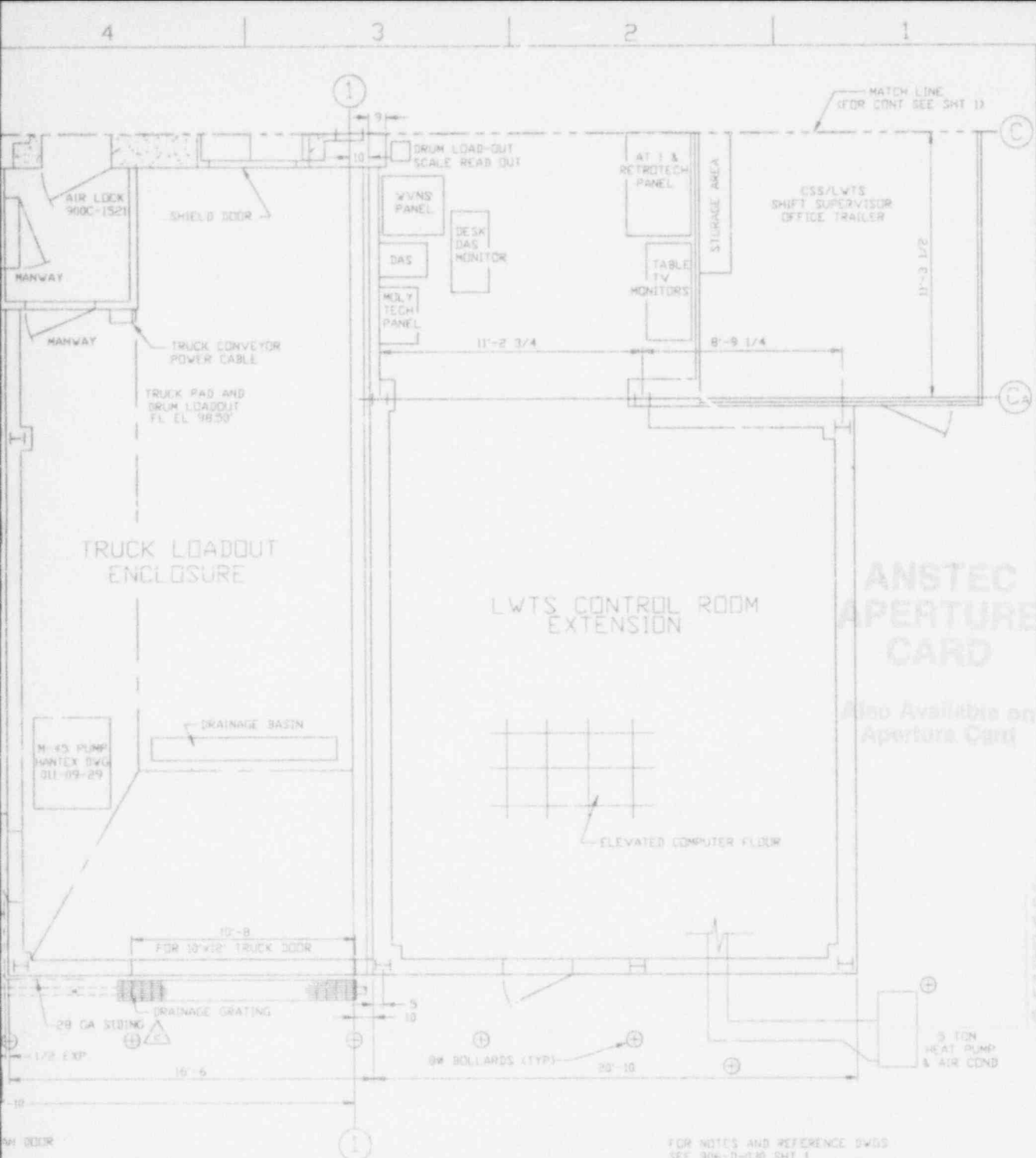
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NO.	REVISIONS	DATE	BY
1	ISSUED FOR CONSTRUCTION	01/14/93	JRH
2	REVISED PER LON	03/03/93	JRH
3	CONTRACT	07/19/93	JRH
4	CONTRACT	08/05/93	JRH
5	REVISED PER	07/30/93	JRH

34" FIRE WATER (33FWS-B-AT) E 968250

FOR 8" FIRE LINE TO 01/14 BLDG SEE 9060-089



**ANSTEC APERTURE CARD**

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**CAUTION**  
CURRENT AS OF

DEC 17 '93

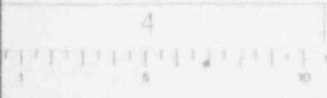
CHECK DOCUMENT CONTROL FOR LATEST REVISION.

FOR NOTES AND REFERENCE DWGS SEE 906-D-030 SHT 1

9403140323-30

REV	BY	DATE	DESCRIPTION
1	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
2	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
3	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
4	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
5	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
6	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
7	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
8	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
9	J. H. KRUIZICKI	05/11/93	ISSUED FOR CONSTRUCTION
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LAD DRAWING DO NOT REVISE THIS ORIGINAL



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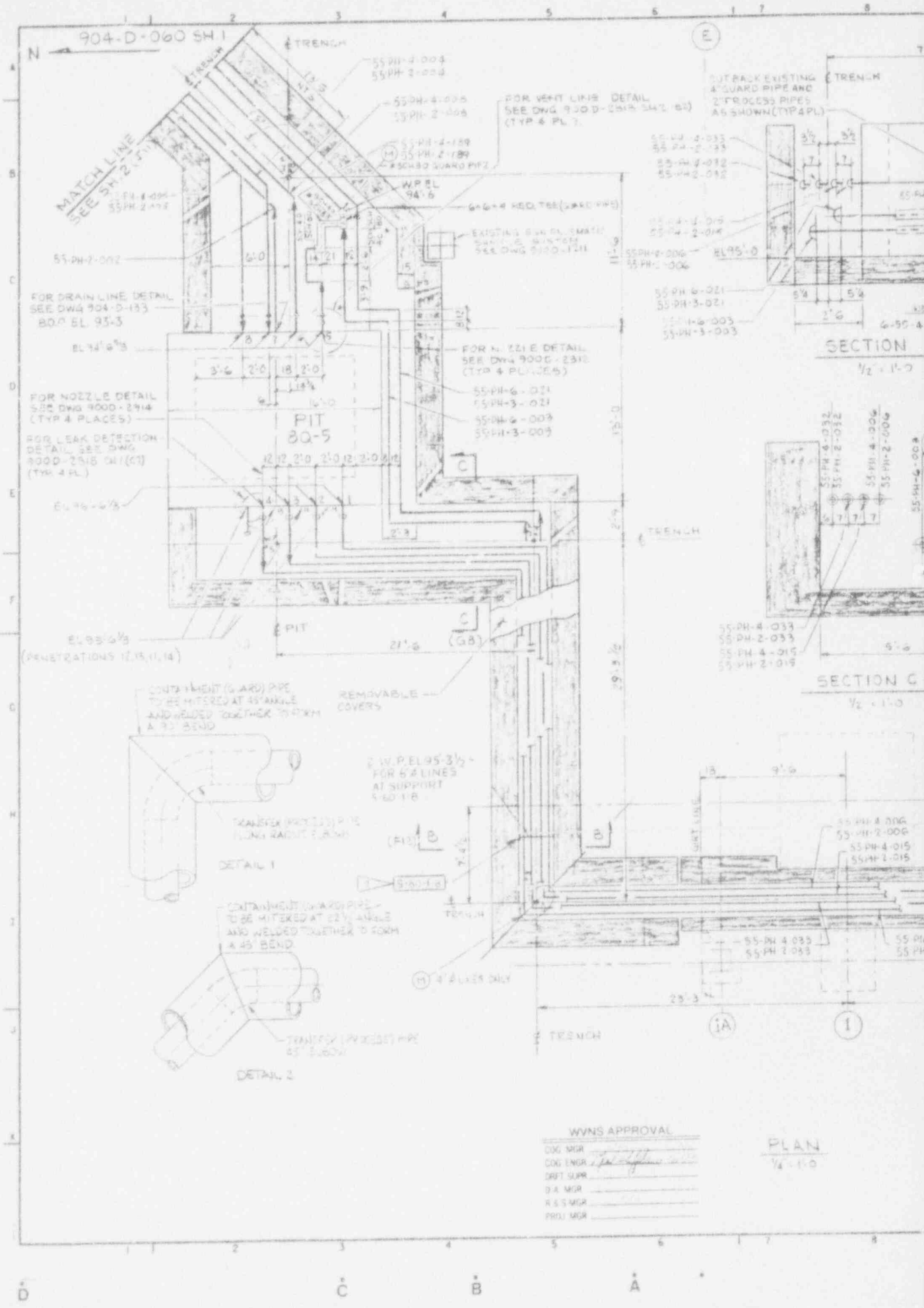
1 2 3 4

PLOT 1-20

WEST VALLEY DEMONSTRATION PROJECT  
VITRIFICATION FACILITY  
GENERAL ARRANGEMENT  
01/14 BUILDING PLAN EL 9800'

906-D-030

SHEET 3 OF 2



OUTRACK EXISTING 4\"/>

FOR DRAIN LINE DETAIL SEE DWG 904-D-133 80° EL 95-3

FOR NOZZLE DETAIL SEE DWG 900-D-294 (TYP 4 PLACES)

FOR LEAK DETECTION DETAIL SEE DWG 900-D-2015 SH 1 (C) (TYP 4 PL)

FOR HAZZIE DETAIL SEE DWG 900-D-2310 (TYP 4 PLACES)

CONTAINMENT (WARD) PIPE TO BE MITERED AT 45° ANGLE AND WELDED TOGETHER TO FORM A 90° BEND

REMOVABLE COVERS

W.P. EL 95'-3 1/2" FOR 6x4 LINES AT SUPPORT 5-60-1-B

TRANSFER (PROCESS) PIPE LONG RADIUS 90° BEND

DETAIL 1

CONTAINMENT (WARD) PIPE TO BE MITERED AT 45° ANGLE AND WELDED TOGETHER TO FORM A 45° BEND

DETAIL 2

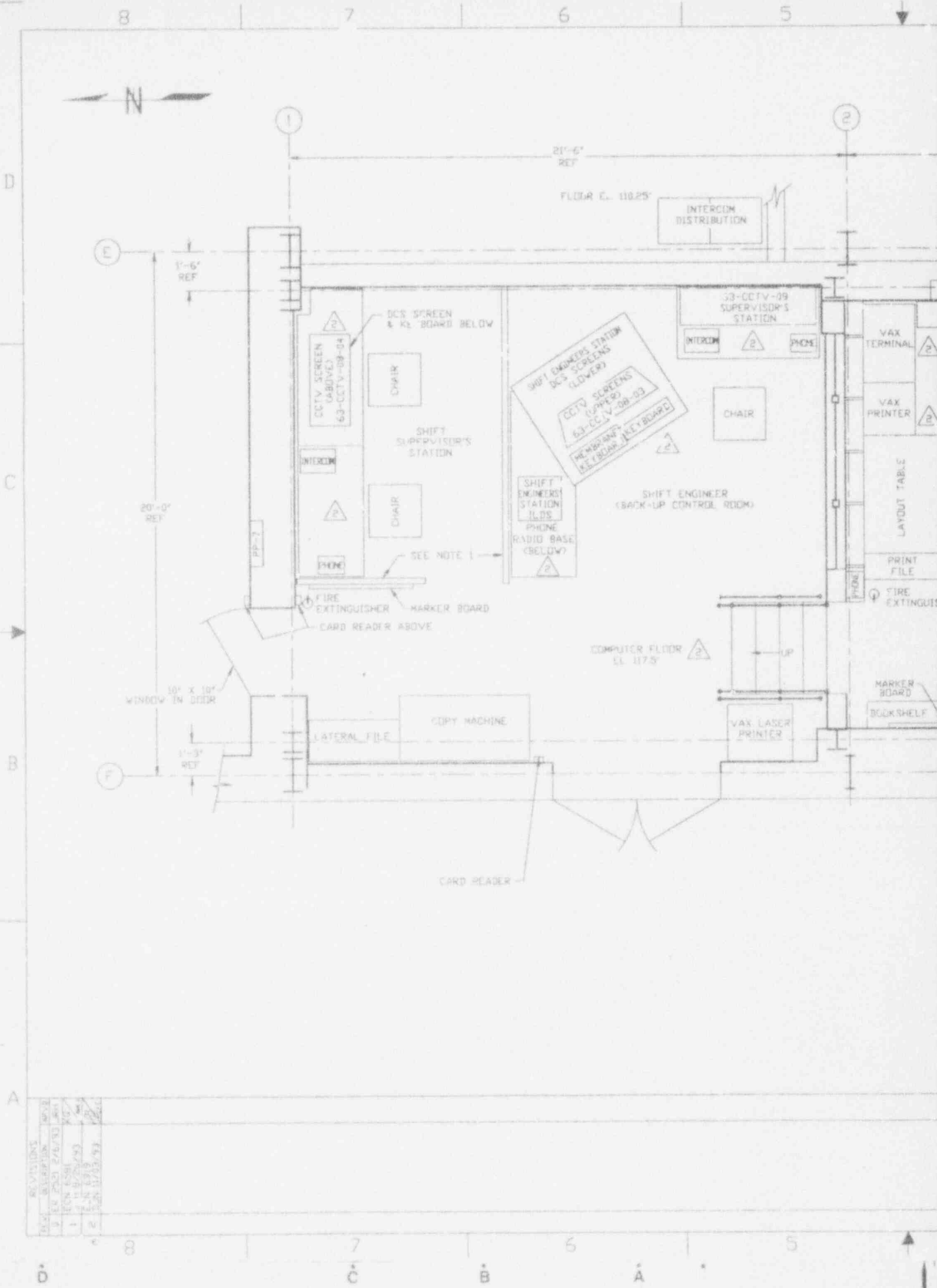
TRANSFER (PROCESS) PIPE 45° BEND

WVNS APPROVAL

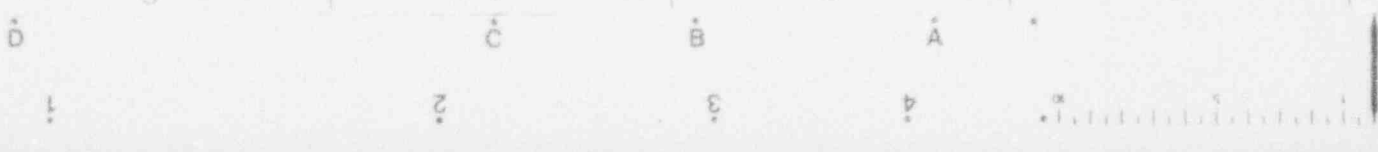
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COG ENGR	<i>[Signature]</i>
DRY SUPR	
P.A. MGR	
R.E.S. MGR	
PROJ. MGR	

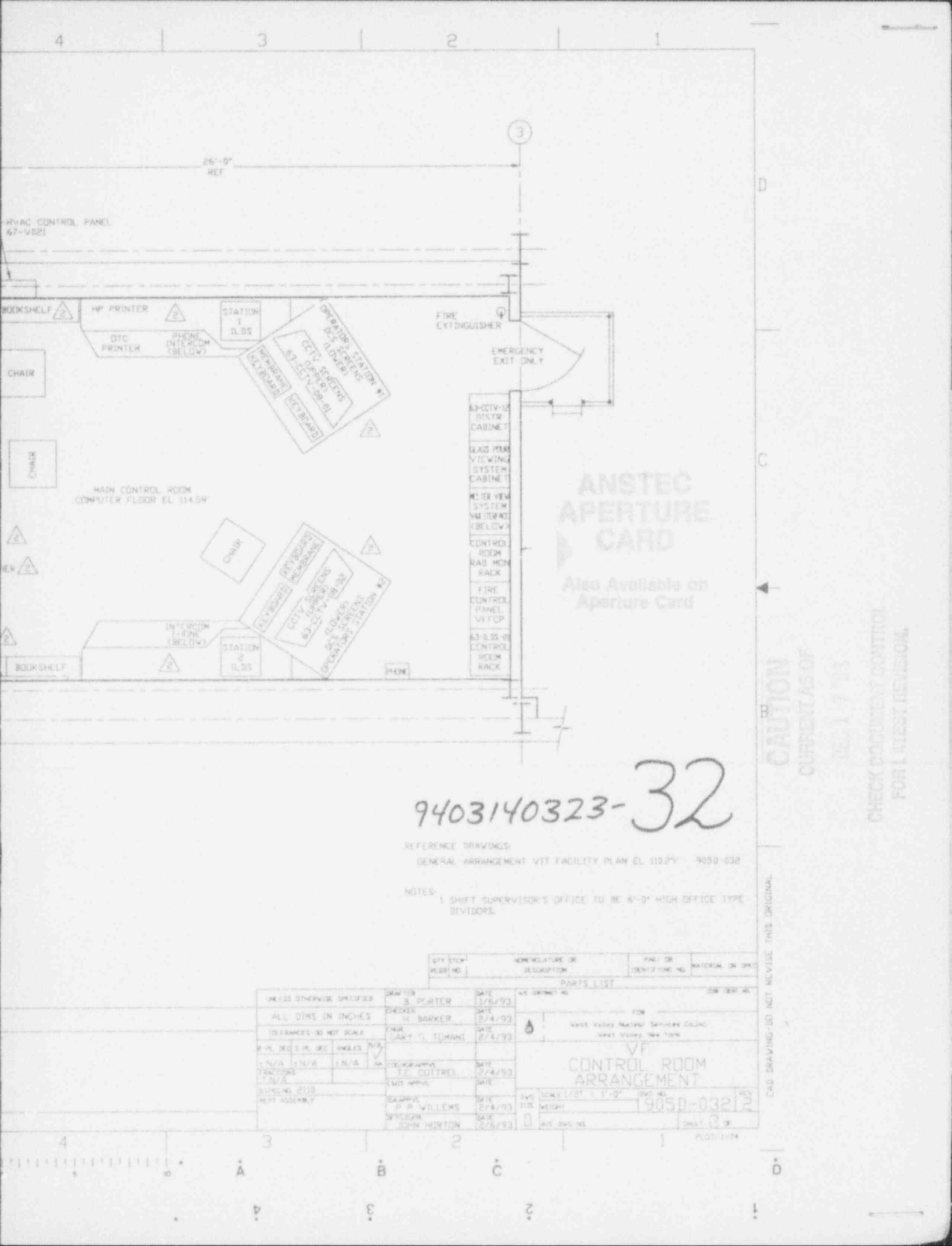
PLAN  
1/2" = 1'-0"





NO.	REVISIONS	DATE
1	DCS REVISION	2/15/83
2	DCS REVISION	2/15/83
3	DCS REVISION	2/15/83
4	DCS REVISION	2/15/83
5	DCS REVISION	2/15/83
6	DCS REVISION	2/15/83





**ANSTEC APERTURE CARD**  
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9403140323-32

REFERENCE DRAWINGS:  
 GENERAL ARRANGEMENT VIT FACILITY PLAN EL. 110.25' 9050-032

NOTES:  
 1. SHIFT SUPERVISOR'S OFFICE TO BE 8'-0" HIGH OFFICE TYPE DIVIDERS.

QTY	SYM	DESCRIPTION	DATE	BY	CHK'D
1	3	63-02V-12 RISTR CABINET	1/6/93	B. QUARTER	
1	4	GLASS VIEW VIEWING SYSTEM CABINET	2/4/93	H. BARKER	
1	5	METER VIEW SYSTEM METER (BELOW)	2/4/93	GARY T. TORANI	
1	6	CONTROL ROOM RAD MON RACK	2/4/93		
1	7	FIRE CONTROL PANEL VFCP			
1	8	63-02S-02 CONTROL ROOM RACK			

UNLESS OTHERWISE SPECIFIED	BY	DATE
ALL DIMS IN INCHES	B. QUARTER	1/6/93
TOLERANCES - SEE DET SCALE	H. BARKER	2/4/93
P. H. DEC. 1 P. DEC. 2 INCHES	GARY T. TORANI	2/4/93
1 N/A 1 N/A 1 N/A	TE. DOTTRELL	2/4/93
FRANCHISE	EMT APPVL	
BUSINESS 2110	SCARVE	2/4/93
NETT ASSEMBLY	P. P. WILLEMS	2/4/93
	SPICER	2/6/93
	OSMA HORTON	2/6/93

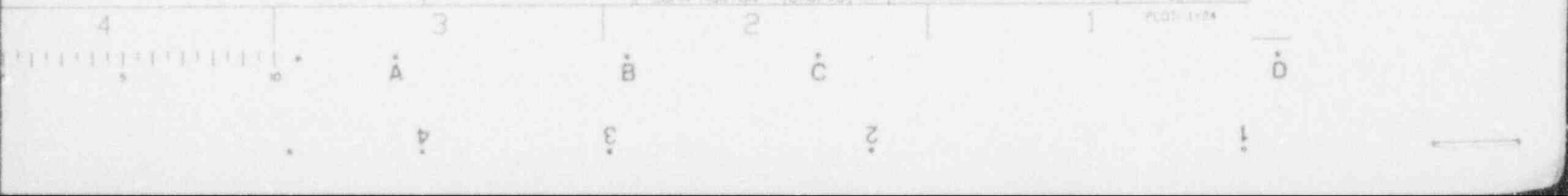
**CONTROL ROOM ARRANGEMENT**

9050-03212

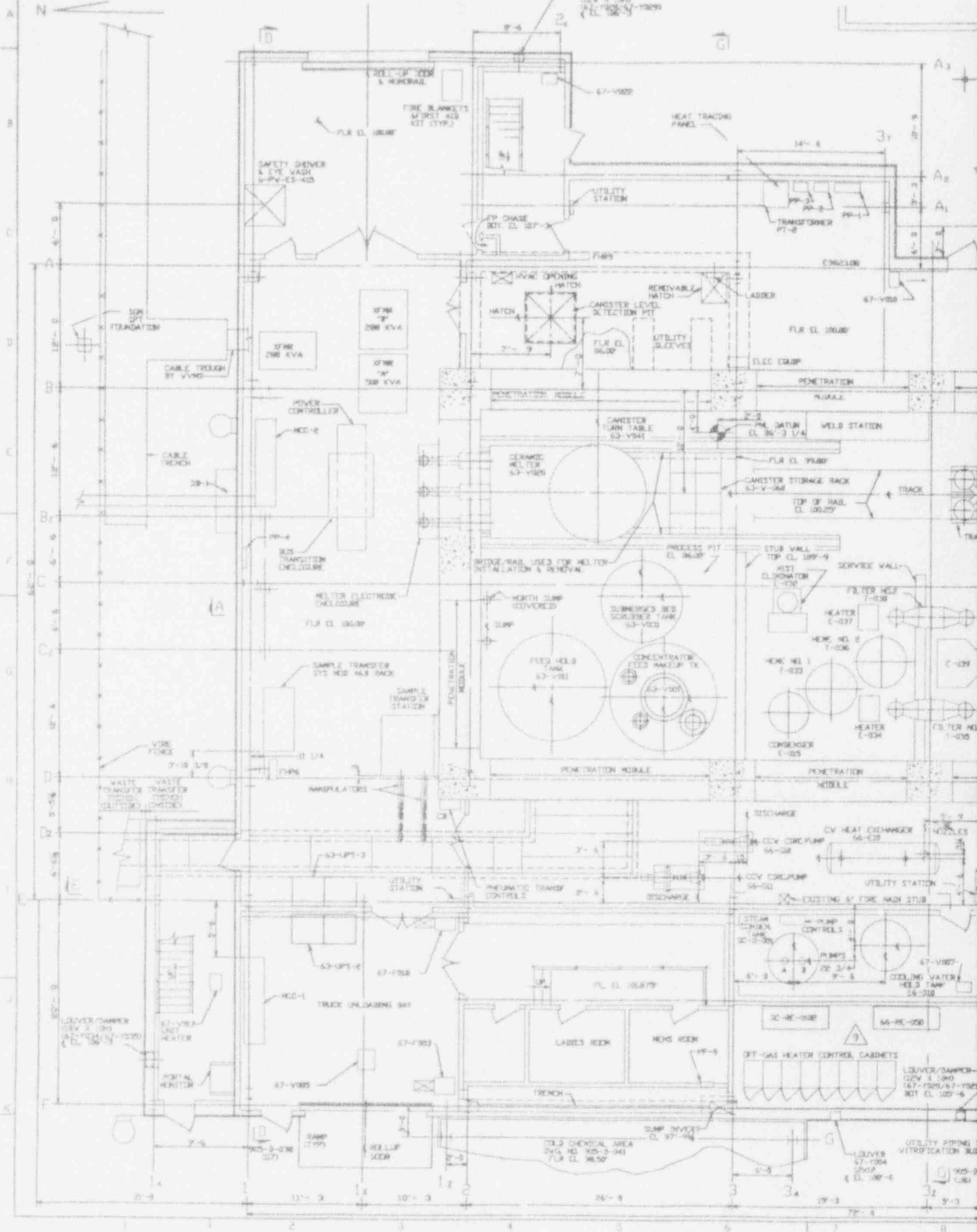
CAUTION  
 CURRENT AS OF  
 DEC 17 1993

CHECK DOCUMENT CONTROL  
 FOR LATEST REVISION.

CAD DRAWING-DO NOT REVISE THIS ORIGINAL



905-D-030



D

C

B

A



NO. DATE REVISION DR CH APPROVED					NO. DATE REVISION DR CH APPROVED					
GENERAL REVISION					GENERAL REVISION					
7	1/25/93	ECN 5325	M.J.	DRS	PAN					
6	1/13/93	ECN 5798	M.J.	DRS	SP					
5	12/15/92	ECN 5768, 5777	L.R.K.	HAB	K.V.R.					
4	11/18/92	ECN 5684	DAK	HAB	G.F.B.					
3	10/20/92	ECN 5112	J.L.H.	HAB	G.F.B.					
9	11/8/93	ECN 6788	J.L.H.	HAB	K.V.R.					
8	9/23/93	ECN 6468	J.L.H.	HAB	M.V.D.					
9	7-13-89	ER 1646			J.R.H.					
GENERAL REVISION PER EBAR 851A DATED 3-19-87					GENERAL REVISION PER TA-612					
GENERAL REVISION PER TA-688 & 724					GENERAL REVISION PER EBAR NO. 1147					

# ANSTEC APERTURE CARD

Also Available on Aperture Card

### NOTES

- FOR NOTES, LEGEND AND REFERENCE DRAWINGS SEE 905-D-032.
- FOR CELL INTERIOR SEE DRAWING PNE-240-01 THRU-20 AND PNE-500-01 02, 03.

9403140323-33

ECN(S) PENDING #1122

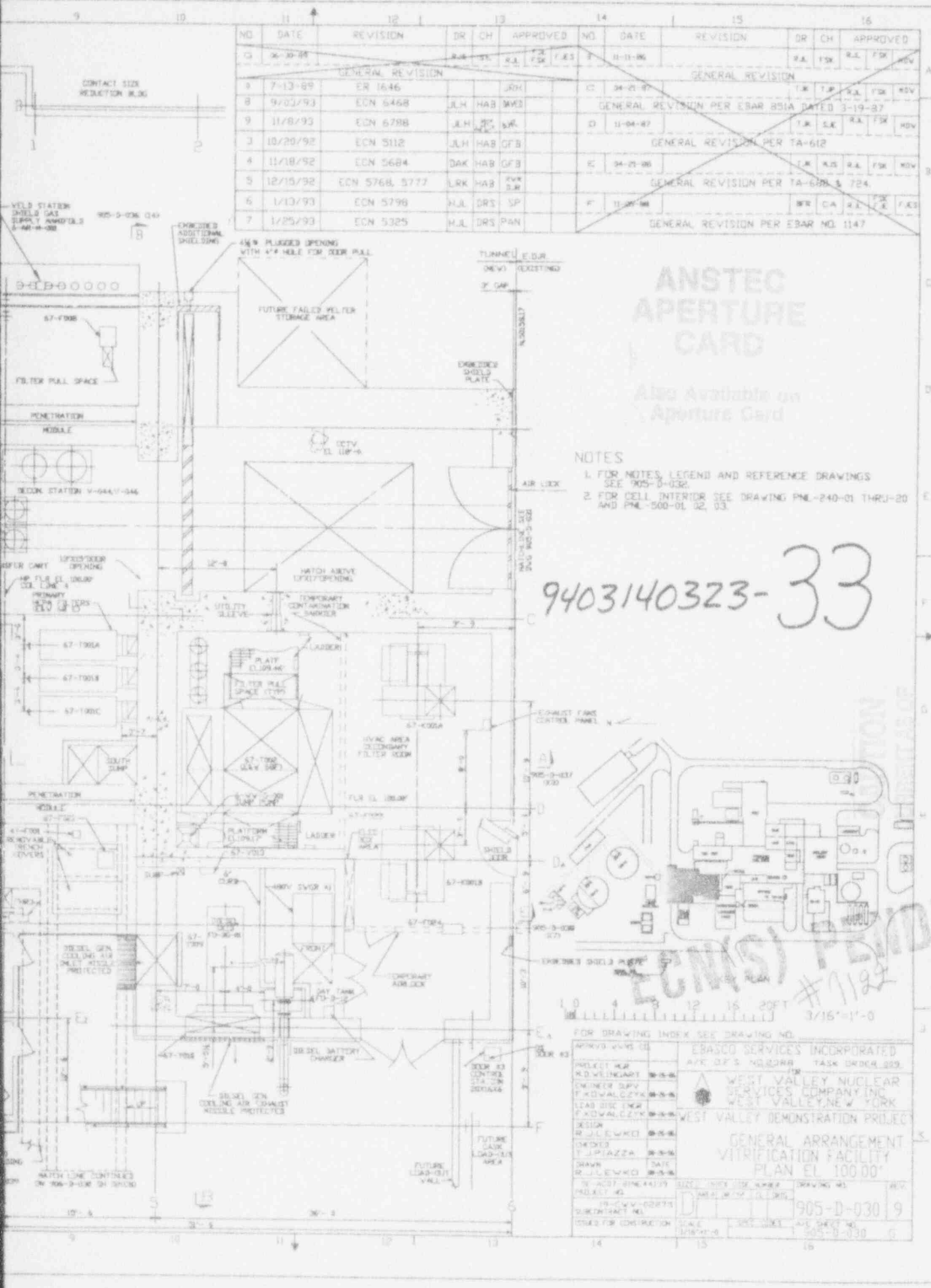
FOR DRAWING INDEX SEE DRAWING NO. 905-D-030

APPROVED	DATE	BY	PROJECT
J.L.E.W.K.I.	12/15/92	J.L.E.W.K.I.	905-D-030

EBASCO SERVICES INCORPORATED  
 4700 S. HIGGINS RD. TASK ORDER 809  
 WEST VALLEY NUCLEAR SERVICES COMPANY INC.  
 WEST VALLEY, NEW YORK  
 WEST VALLEY DEMONSTRATION PROJECT

DESIGN: R. J. LEWICKI  
 CHECKED: T. J. PIAZZA  
 DRAWN: R. J. LEWICKI  
 DATE: 12/15/92

SCALE: AS SHOWN  
 SHEET NO.: 905-D-030-9



CHECK DOCUMENT CONTROL FOR LATEST REVISION