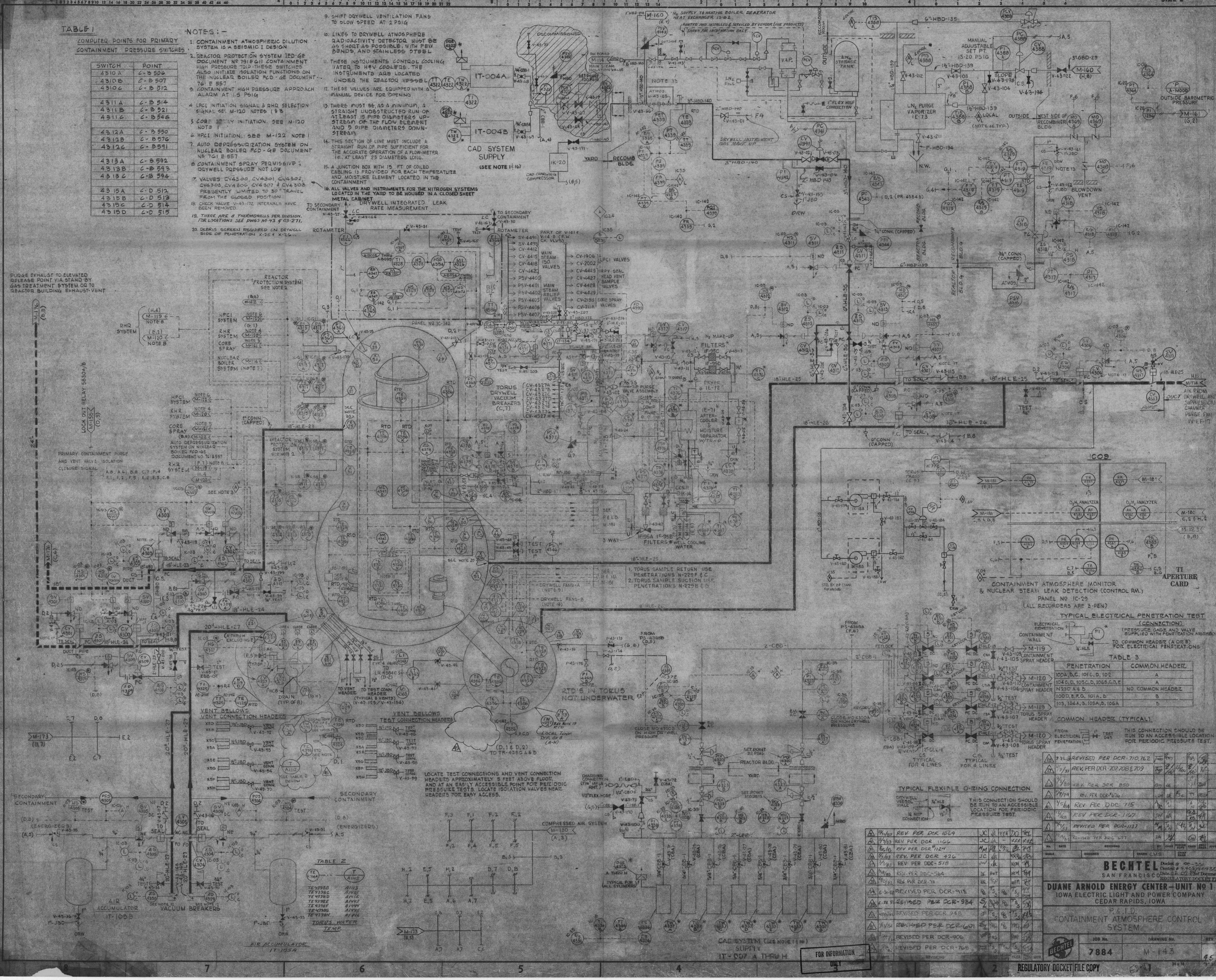

TABLE 1

COMPUTER POINTS FOR PRIMARY CONTAINMENT PRESSURE SWITCHES

SWITCH	POINT
4310 A	C-B 506
4310 B	C-B 507
4310 C	C-B 512
4311 A	C-B 514
4311 B	C-B 521
4311 C	C-B 546
4312 A	C-B 550
4312 B	C-B 576
4312 C	C-B 591
4313 A	C-B 592
4313 B	C-B 593
4313 C	C-B 594
4315 A	C-D 512
4315 B	C-D 513
4315 C	C-D 514
4315 D	C-D 515

NOTES:-

1. CONTAINMENT ATMOSPHERIC DILUTION SYSTEM IS A SEISMIC I DESIGN
2. REACTOR PROTECTION SYSTEM IED-GE DOCUMENT Nº 791E611 CONTAINMENT HIGH PRESSURE TRIP-THESE SWITCHES ALSO INITIATE ISOLATION FUNCTIONS ON THE NUCLEAR BOILER FCD-GE DOCUMENT 761 E 557
3. CONTAINMENT HIGH PRESSURE APPROACH ALARM AT 1.5 PSIG
4. LPCI INITIATION SIGNAL & RHR SELECTION SIGNAL SEE M-120 NOTES 1 & 3
5. CORE SPRAY INITIATION. SEE M-120 NOTE 1
6. HPCI INITIATION. SEE M-122 NOTE 1
7. AUTO DEPRESSURIZATION SYSTEM ON NUCLEAR BOILER FCD-GE DOCUMENT Nº 761 E 557
8. CONTAINMENT SPRAY PERMISSIVE; DRYWELL PRESSURE NOT LOW
9. SHIFT DRYWELL VENTILATION FANS TO SLOW SPEED AT 2 PSIG
10. LINES TO DRYWELL ATMOSPHERE RADIOACTIVITY DETECTOR MUST BE AS SHORT AS POSSIBLE, WITH FEW BENDS, AND STAINLESS STEEL
11. THESE INSTRUMENTS CONTROL COOLING WATER TO H&V COOLERS. THE INSTRUMENTS ARE LOCATED UNDER THE REACTOR VESSEL
12. THESE VALVES ARE EQUIPPED WITH A MANUAL DEVICE FOR OPENING
13. THERE MUST BE, AS A MINIMUM, A STRAIGHT UNOBSTRUCTED RUN OF AT LEAST 15 PIPE DIAMETERS UPSTREAM OF THE FLOW ELEMENT AND 5 PIPE DIAMETERS DOWNSTREAM.
14. THIS SECTION OF LINE MUST INCLUDE A STRAIGHT RUN OF PIPE SUFFICIENT FOR THE ACCURATE OPERATION OF A FLOW-METER i.e., AT LEAST 25 DIAMETERS LONG.
15. A JUNCTION BOX WITH 15 FT OF COILED CABLING IS PROVIDED FOR EACH TEMPERATURE AND MOISTURE ELEMENT LOCATED IN THE CONTAINMENT
16. **ALL VALVES AND INSTRUMENTS FOR THE NITROGEN SYSTEMS LOCATED IN THE YARD TO BE HOUSED IN A CLOSED SHEET METAL CABINET**
17. VALVES CV4300, CV4301, CV4302, CV4303, CV4306, CV4307 & CV4308 PRESENTLY LIMITED TO 30° TRAVEL FROM THE CLOSED POSITION.
18. CHECK VALVE V-43-172 INTERNALS HAVE BEEN REMOVED.
19. *THERE ARE 8 THERMOWELLS PER DIVISION. FOR LOCATIONS SEE DWGS M-43 & 03-271.*
20. DEBRIS SCREEN REQUIRED ON DRYWELL SIDE OF PENETRATION X-25 & X-26.

CAD SYSTEM SUPPLY (SEE NOTE 1 (16))

DRYWELL INTEGRATED LEAK RATE MEASUREMENT

CONTAINMENT ATMOSPHERE MONITOR & NUCLEAR STEAM LEAK DETECTION (CONTROL RM.) PANEL Nº 1C-29 (ALL RECORDERS ARE 3-PEN)

TYPICAL ELECTRICAL PENETRATION TEST (CONNECTION)

(PRESSURE GAGE AND VALVE SUPPLIED WITH PENETRATION ASSEMBLY)

TO COMMON HEADER (A OR B) FOR ELECTRICAL PENETRATIONS

TABLE 3

PENETRATION	COMMON HEADER
100A, B, C, 101C, D, 102	A
104C, D, 105C, D, 106B, C, D, E	A
N230 A & B	NO COMMON HEADER
100D, E, F, G, 101A, B	B
103, 104A, B, 105A, B, 106A	B

COMMON HEADER (TYPICAL)

THIS CONNECTION SHOULD BE RUN TO AN ACCESSIBLE LOCATION FOR PERIODIC PRESSURE TEST.

TYPICAL FLEXIBLE O-RING CONNECTION

THIS CONNECTION SHOULD BE RUN TO AN ACCESSIBLE LOCATION FOR PERIODIC PRESSURE TEST.

LOCATE TEST CONNECTIONS AND VENT CONNECTION HEADERS APPROXIMATELY 5 FEET ABOVE FLOOR, AND AT AN EASILY ACCESSIBLE POINT FOR PERIODIC PRESSURE TESTS. LOCATE ISOLATION VALVES NEAR HEADERS FOR EASY ACCESS.

2TD'S IN TORUS NOT UNDERWATER

TABLE 2 — TORUS WATER TEMP

Revisions

No.	DATE	REVISIONS	BY	CHKD	DESIGN SUPV	ENGR	PROJ ENGR	APPR
28	7-22-81	REVISED PER DCR-710, 762	TNO	[illegible]		[illegible]	[illegible]	
27	4/8/81	REV. PER DCR-707, 708 & 709	TNO GB	[illegible]	[illegible]	[illegible]	[illegible]	
26	9/8/80	REV. PER DCR 850	LSM	DE		[illegible]	[illegible]	
25	11/7/79	REV. PER DCR-#676	LSM	DE	RSC	[illegible]	[illegible]	
45	1/5/84	REV PER DDC 715	ADR	TAN		TAN	[illegible]	
44	12/1/83	REV PER DCR-1167	JW	[illegible]		RB	[illegible]	
43	10/11/83	REVISED PER DCR-1137	MM	TAN	[illegible]	TAN	[illegible]	
42	10/19/83	REVISED PER DDC 677	DA	[illegible]		DW	[illegible]	
41	8/31/83	REV. PER DCR 1064	JC	[illegible]	KEH	DO	[illegible]	
40	8/9/83	REV. PER DCR 1166	JC	[illegible]	-	[illegible]	[illegible]	
39	7/26/83	REV PER DCR #1124	MM	[illegible]	[illegible]	[illegible]	[illegible]	
38	5/3/83	REV. PER DCR 426	JC	[illegible]		RRP	[illegible]	
37	3/9/83	REV PER DDC-518	JW	[illegible]		HEM	[illegible]	
36	1/18/83	REV. PER DDC-564	DE	BNT		HEM	[illegible]	
35	10/13/82	REV. PER DCR-711	DE	[illegible]		HEM	[illegible]	
34	6-30-82	REVISED PER DCR-918	RB	TSS	RB	TSS	[illegible]	
33	6-22-82	REVISED PER DCR-934	SL	[illegible]	RB	TSS	[illegible]	
32	4/10/82	REVISED PER DCR 948	[illegible]	TSS	RB	TSS	[illegible]	
31	4/1/82	REVISED PER DCR-601	SL	[illegible]	RB	[illegible]	[illegible]	
30	[illegible]	REVISED PER DCR-906	[illegible]	[illegible]		[illegible]	[illegible]	
29	[illegible]	REVISED PER DCR-765	[illegible]	TSS	[illegible]	TSS	[illegible]	

SCALE | DESIGNED | DRAWN C.M.S. | CHIEF ENGR

BECHTEL
SAN FRANCISCO

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DUANE ARNOLD ENERGY CENTER—UNIT Nº 1
IOWA ELECTRIC LIGHT AND POWER COMPANY
CEDAR RAPIDS, IOWA

P. & I. D.
CONTAINMENT ATMOSPHERE CONTROL SYSTEM

JOB No.	DRAWING No.	REV.
7884	M-143	45

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