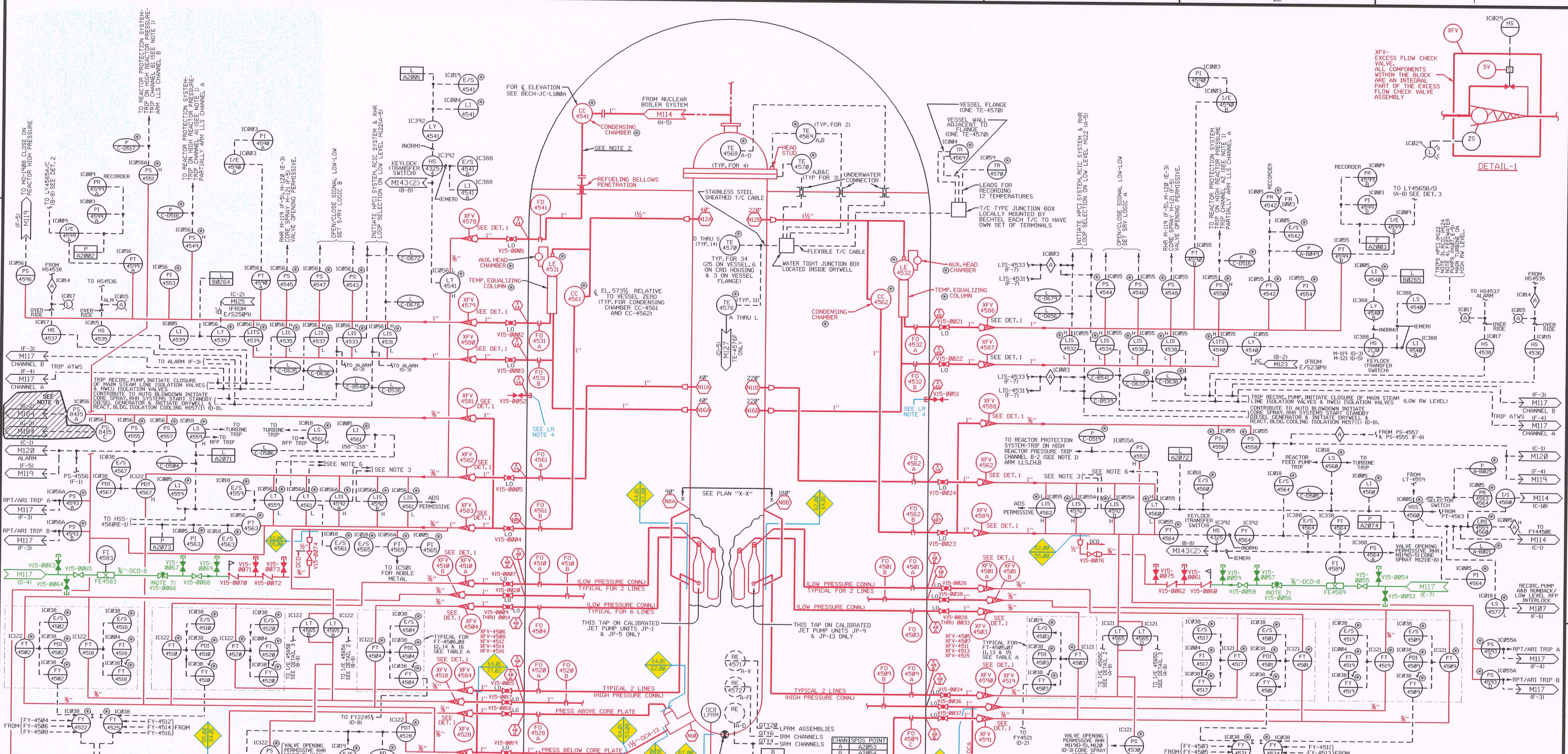
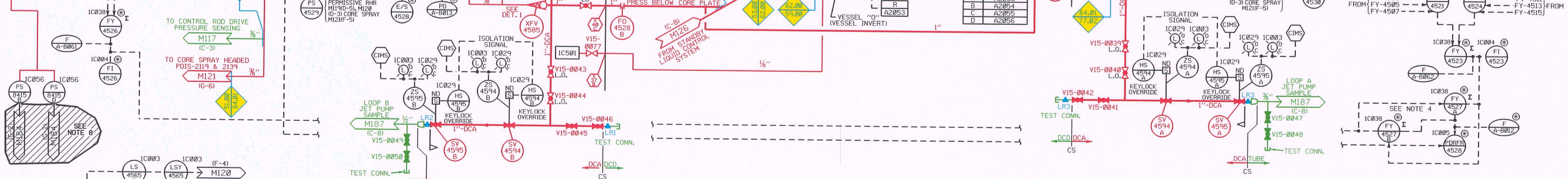
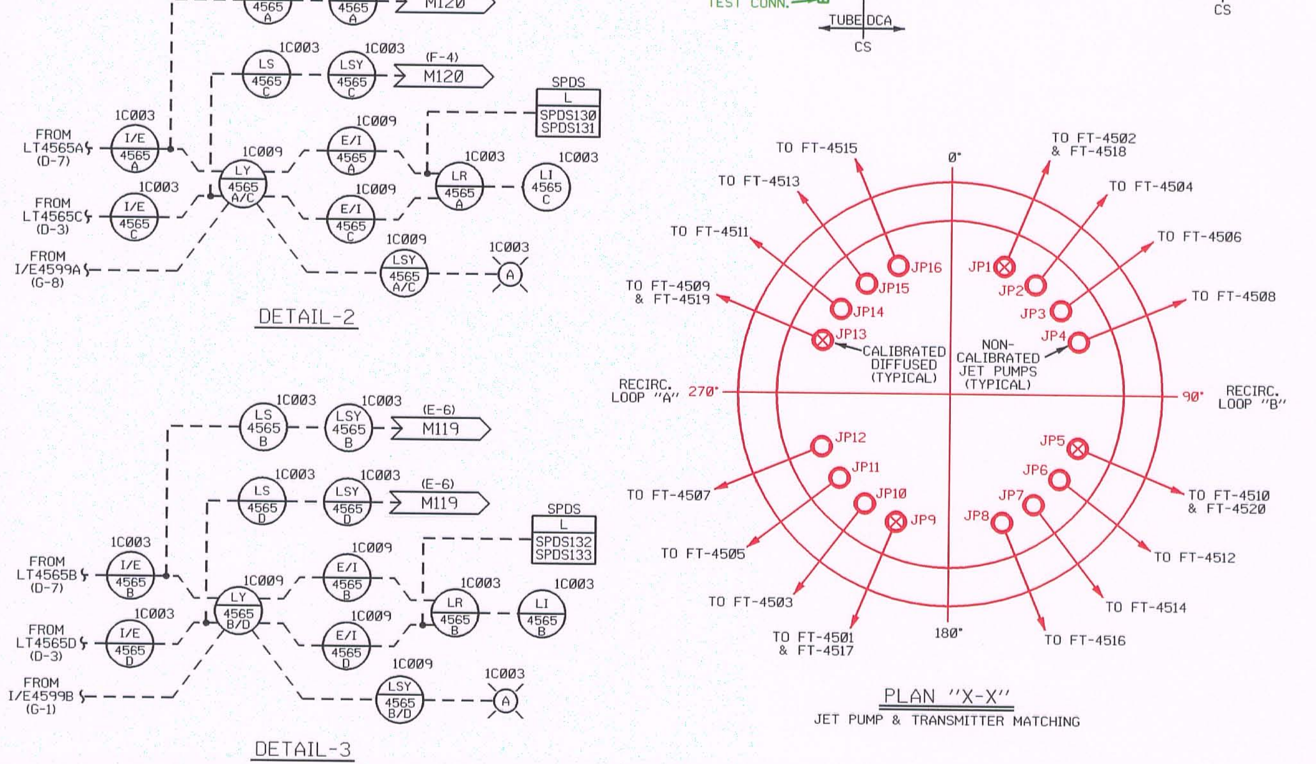




CHAN	SPDS POINT
A	A2053
B	A2054
C	A2055
D	A2056



ELEVATION CORRELATION CHART

REFERENCE	(COLD VESSEL) INCHES ABOVE VESSEL ZERO	TRIPS DESCRIPTION	INSTRUMENT(S) PROVIDING TRIP	REACTOR VESSEL LEVELS (REF. 25)	INDICATED LEVEL TRIP SETTINGS (NOTE 1) SAFEGUARDS LIR 604	FEEDWATER LRS C31-R608
NOZZLE N3 A,B,C,D	620.5					
NOZZLE N12 A,B	572					
FEEDWATER SYSTEM & REACTOR PROTECTION SYSTEM	562.5				218	218
	555.5	TRIP REACTOR FEED PUMPS CLOSE MAIN TURBINE STOP VALVES TRIP RCIC & HPCI TURBINES	ALARM UNIT LS-4559, 60 & 61 LIS-4592A,B,C & D LS-4540 (NOTE 5)	8	211	211
	539.5	HIGH LEVEL ALARM	LRS-4559 & 4560	7		195
	530.5	NORMAL WATER LEVEL	FEEDWATER LEVEL CONTROL SYSTEM	5.6		
		LOW LEVEL ALARM	LRS-4559 & 4560	4		186
	514.5	SCRAM & CLOSE PRIMARY SYS. ISOLATION VALVES EXCEPT MAIN STEAM LINE & RWCU AUTO DEPRESSURIZATION PERMISSIVE	LIS-4592A,B,C & D LIS-4562,4561	3	+170 IN. DEC. 170 +170 IN. DEC.	
FEEDWATER SYSTEM & REACTOR PROTECTION SYSTEM	502.5				158	158
NOZZLE N11 A,B	493					
	464	INITIATE RCIC, HPCI & SELECT RHR LOOP FOR INJECTION TRIP RECIRC PUMPS, INITIATE ARI & ISOLATE RWCU	LIS-4531,32,33,34 LIS-4535, 4537 LIS-4536, 4538	2	119.5 DEC.	
	408	INITIATE RHR & CORE SPRAY SYSTEMS CONTRIBUTE TO AUTO DEPRESSURIZATION SYSTEM START STANDBY DIESEL	LS-4540 (NOTE 5) LIS-4531,32,33,34	1	64 DEC.	
	352.5	CLOSE MAIN STEAM LINE ISOLATION VALVES	LIS-4535,36,37,38			
REACTOR PROTECTION SYSTEM NOZZLE N16 A,B	348				8	
TOP OF ACTIVE FUEL	344.5					
FUEL & INSTRUMENT ZERO	305.5	CONTAINMENT SPRAY PERMISSIVE	LS-4565A LS-4565B LS-4565C LS-4565D	0		
LOWER JET PUMP TAP	127					
NOZZLE N8 A,B	118.5					

TABLE-A
ADDITIONAL INSTRUMENTATION-REF. PLAN-XX

FT ⊛	PENETRATION	RACK NO.	E/S ⊛	PDI ⊛	FY ⊛	HS	ZS	SV	XFV	FO ⊛	FY Σ
4505	X-40B	1C121	4505								4521
4506	X-40A	1C122	4506								4522
4507	X-40B	1C121	4507								4521
4508	X-40A	1C122	4508								4522
4511	X-40D	1C121	4511								4524
4512	X-40C	1C122	4512								4525
4513	X-40D	1C121	4513								4524
4514	X-40C	1C122	4514								4525
4515	X-40D	1C121	4515								4524
4516	X-40C	1C122	4516								4525

PRIMARY PROTECTION	COMPUTER POINT
MANUAL SCRAM TRIP SYSTEM "A"	C-D536
MANUAL SCRAM TRIP SYSTEM "B"	C-D537
REACTOR SCRAM TRIP SYSTEM "A"	C-D538
REACTOR SCRAM TRIP SYSTEM "B"	C-D539

T.I.P. RADIATION MONITOR

INSTRUMENT TAG NO.	LOCATION
RM-4574	1C013
RR-4574	1C013
RE-4574A RE-4574B RE-4574C	S.E. CORNER OF R.B. ADJAC. TO CONTAINM.

NOTES:

1. REACTOR PROTECTION SYSTEM SHOWS ON G.E. DOCUMENT 729E611 WHICH IS THE SYSTEM I.E.D. & APED DWGS. 729E616CA SH. 2. ZERO REFERENCES OF LEVEL SETTINGS ARE AT TOP OF ACTIVE FUEL.
2. AN EXPANSION LEG SHALL BE PROVIDED IN INSTRUMENT SENSING LINE BETWEEN CC-4541 AND THE WATER TIGHT PENETRATION SEAL THROUGH BOTTOM OF REACTOR WELL. THE EXPANSION LEG & PIPING INSTALLATION SHALL BE DESIGNED TO ALLOW FOR MAXIMUM CHANGE OF VESSEL LENGTH WITH TEMPERATURE TO AVOID OVER-STRESSING THE PIPING, THE SEAL OR DAMAGE TO THE INSULATION AROUND THE VESSEL.
3. SCRAM AND INITIATE PRIMARY CONTAINMENT ISOLATION EXCEPT RWCU & MAIN STEAM LINE ISOLATION VALVES ON LOW LEVEL TRIP HPCI TURBINE ON HIGH LEVEL.
4. SUMMER FY-4527A & FY-4527B INPUTS AND OUTPUTS SHALL BE INTERLOCKED WITH RECIRC. PUMP MOTOR AND DISCHARGE VALVES SUCH THAT THE INPUTS ARE RUNNING AND THEIR DISCHARGE VALVES ARE OPEN OR BOTH LOOPS ARE SHUTDOWN. THE SIGNALS ARE TO BE SUBTRACTED WHEN ONE JET PUMP LOOP IS IN OPERATION.
5. ALTERNATE SHUTDOWN CAPABILITY SYSTEM ONLY.
6. NOTE THAT THE GEMAC LEVEL TRANSMITTERS HI AND LO TAPS ARE REVERSED WHEN COMPARED WITH THE OTHER LEVEL SWITCHES ON THIS INSTRUMENT RACK.
7. THE METERING VALVE INSTALLED (V15-0056, V15-0066) IS A DOUBLE PATTERN TYPE WITH ONE HANDLE LOCKED IN PLACE BY SET SCREW AND CAPPED TO PREVENT INADVERTENT OPERATION. DO NOT ADJUST THE HANDLE UNDER THE CAP WITHOUT ENGINEERING'S CONCURRENCE. DO NOT ADJUST FLOW ABOVE 0.072 GPM AS THAT WOULD EXCEED THE ANALYZED RANGE. SETTING MAXIMUM FLOW ON METERING VALVES: WITH CRD DIFFERENTIAL PRESSURE AT 380-400 PSID AS READ ON PI1825A, AND WITH INLET SIDE OF VALVE (PENETRATING PANEL) FULL CLOSED, OPEN OUTLET SIDE OF VALVE FULL OPEN. SLOWLY OPEN INLET SIDE UNTIL 0.057-0.063 GPM IS REACHED AND STABLE. LOCK INLET SIDE IN POSITION WITH SET SCREW. SEAL INLET SIDE IN POSITION WITH SMALL AMOUNT OF FLUORESCENT RTV. VERIFY OUTLET SIDE CAN BE THROTTLED TO GIVE DESIRED FLOW RATE. INSTALL PROTECTIVE CAP USING ¼" BOLTS, NUTS AND WASHERS.
8. PS8415A-D ARE INSTALLED BUT DECOMMISSIONED/ABANDONED IN PLACE (VALVED OUT OF SERVICE). (OI-880)

D-023

LR NOTES

1. ALL EXPOSED DRAIN PIPING AND FUNNELS ARE IN SCOPE FOR LICENSE RENEWAL.
2. ⟨X #⟩ ARE PENETRATIONS THAT ARE EVALUATED IN 99.28 PC PRIMARY CONTAINMENT STRUCTURE.
3. ⟨N #⟩ ARE PENETRATIONS THAT ARE EVALUATED IN 62.00 NUCLEAR BOILER.
4. V15-0051 AND V15-0052 AND CONNECTED PIPING ARE EVALUATED IN SYSTEM 59.00.

LR NSAS ANCHOR NOTES

- ▲LR1 SEISMIC ANCHOR PS-2 AND DETAIL B FSK-15009B
- ▲LR2 SEISMIC ANCHOR PS-2 AND DETAIL B FSK-15009B
- ▲LR3 LR3-SEISMIC ANCHOR CAL-082-371 FSK-15003B PS-2 AND DETAIL U

LR LEGEND:

- (red) COMPONENTS IN SCOPE PER 10CFR54.4(a)(1) AND/OR (a)(3) AND SUBJECT TO AMR PER 54.21
- (black) COMPONENTS NOT SUBJECT TO AMR
- (green) COMPONENTS IN SCOPE PER 10CFR54.4(a)(2) AND SUBJECT TO AMR PER 54.21
- (yellow diamond) SYSTEM BOUNDARY INTERFACE
  - 51.00 CORE SPRAY
  - 53.00 STANDBY LIQUID CONTROL
  - 55.00 CRD HYDRAULIC
  - 59.00 PRIMARY CONTAINMENT
  - 62.00 NUCLEAR BOILER
  - 64.01 REACTOR RECIRCULATION
  - 77.02 POST ACCIDENT SAMPLING

NO.	DATE	REVISION	DRFTR.	CHK'D.	ENGR.	LEAD
0	9/16/08	INITIAL RELEASE	KB	MF	TH	CLB

IES UTILITIES INC.

P&ID
REACTOR VESSEL INSTRUMENTATION

DWG. NO. BECH-M115-LR REV. 0

BASE P&ID REV 55